March 2017



DRYWALL MANUAL

PLASTERBOARD SYSTEMS FOR PARTITIONS, CEILINGS AND WALL LININGS





INNOVATIVE DRYLINING SOLUTIONS

Welcome to the 2017 edition of the Siniat Drywall Manual which supersedes all previous versions. It contains the technical information you need to specify the most appropriate drylining product or drylining system.

About Siniat

Formerly Lafarge Plasterboard, we are part of the global Etex Group of Companies, which in the UK includes the Marley Eternit and Equitone brands.



This document is intended as guidance for the correct use of Siniat GTEC products and systems in typical, best practice applications. The detailed technical information is to assist you in selecting and specifying the correct systems for your intended applications, but it does not cover all possible configurations of products in all possible constructions.

If your project requirements differ, please get in touch with us.

We make reference to products to supplied by other manufacturers; please seek their advice when using these products. In addition, please seek advice from fixing suppliers and/or qualified professionals when you are fixing our products to various structures.

This document is non-exhaustive and provides general advice in line with good practice; further information should be sought when required. All reasonable efforts have been made to ensure its accuracy and future changes and improvements may be made without prejudice or notice.

The correct installation and specification of GTEC systems and components is the responsibility of the contractor and the specifier.

All GTEC systems should be constructed in accordance with all relevant building regulations and the guidance in 'BS 8212:1995 Code of Practice for Drylining and Partitioning using Gypsum Plasterboard', 'BS 8000-8:1994 Workmanship on building sites – Code of practice for plasterboard partitions and dry linings' and 'BS EN 13964:2004+A1:2006 Suspended ceilings – requirements and test methods'. GTEC is registered trademark of Siniat Limited.

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Call our Technical Services team 01275 377 789



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The latest version of this publication can be found at: www.siniat.co.uk/drywallmanual

INTRODUCTION

FLOORS AND CEILINGS

LININGS

PROUDLY MANUFACTURING IN BRISTOL AND YORKSHIRE

OUR SERVICE

Our products and solutions provide new opportunities for innovative specifications in schools, hospitals and other commercial projects. Through customer insights, we also help the sector to cut wastage, improve manual handling, speed up installation times and deliver projects which are sustainable and address lifetime cost.

A TRUSTED SUPPLY CHAIN PARTNER

We offer an extensive product range to reflect a huge variety of projects and budgets, providing a guaranteed next day delivery for our customers. Many of the construction sector's most successful companies trust our products, customer service and technical knowledge to give their business a competitive edge.

Contact customer services: T: 01275 377 773 E: orderline@etexbp.co.uk

TECHNICAL EXPERTISE

Our technical team are on hand to help with queries about any of our products and systems. For larger projects, we can provide the initial design support, followed by on-site technical support during the installation phase. For smaller projects, our website contains a wealth of information and practical videos, alongside telephone support 7.30 – 17.30 Mon to Fri.

Contact Technical Services T: 0800 145 6033 or 01275 377789 E: technical.siniat@etexbp.co.uk

PROJECT PLANNING & SUPPORT

For larger projects, we add value before, during and after the construction phase. Working with the project team, we can support the initial tender, finding ways to improve aesthetics or building performance, cut construction costs, reduce build times or suggest ways to lower ongoing maintenance costs.

Contact our sales team on: T: 01275 377 773

BRISTOL FACILITY: CAPACITY IN EXCESS OF 50 MILLION SQM OF PLASTERBOARD PER ANNUM

COMMITTED TO SUSTAINABLE CONSTRUCTION

The majority of our products are manufactured here in the UK and are 99% recyclable. They are also:

- BRE Green Guide A / A+ rated and help collect sustainability code credits
- Certified and managed sustainability to Responsible Sourcing BES 6001, ISO 9001 and ISO 14001

Our teams help designers and contractors achieve their sustainability targets for specific projects through efficient design detailing and the careful selection of appropriate products and systems.

Where needed, we can create bespoke lengths to reduce construction waste, and any postconsumer waste can be recycled via our Siniat Wasteline Direct service.

GTEC LIFETIME SYSTEM WARRANTY

FERRYBRIDGE FACILITY: CAPACITY IN EXCESS OF

MILLION SQM OF PLASTERBOARD PER ANNUM

Our products and components are rigorously tested together to ensure compatibility and system performance, enabling us to guarantee the technical performance of our systems. When systems are built entirely with GTEC components

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and materials - by qualified professionals and in accordance with our latest literature and relevant standards - we can offer our Lifetime System Warranty.

In the unlikely event of failure, provided the system is unaltered, as originally designed and built, we will reinstate the system to its originally specified performance level. This warranty gives the confidence that Siniat GTEC systems will perform as intended throughout the life of the building.

Warranties for products and systems in wet or severe humidity environments are available separately on request. For full details of the Lifetime System Warranty, please visit www.siniat.co.uk



Sector: Healthcare Project Value: £22 million Client: The Walton Centre NHS Foundation Trust Architect: Gilling Dod Main Contractor: Interserve Sub Contractor: Interserve

Siniat Innovations: LaDura

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SYSTEMS FOR HEALTHCARE

GTEC Plasterboard Systems have been used extensively in major healthcare projects across the UK and Ireland as fast and effective solutions to healthcare construction.

GTEC Boards and GTEC Systems have been developed to meet and exceed the full range of extraordinary demands placed on hospital and healthcare buildings.

EXTRAORDINARY DEMANDS

ACOUSTICS:	The acoustic demands on partitions in Healthcare buildings are extreme; from ensuring consultation room privacy and operation suite concentration, to dealing with emergency vehicle sirens and the intensity of A&E departments. While layout can ease noise risk, GTEC Systems allow for flexible design with extremely high levels of sound insulation from space to space. The partition performance ensures that a superior healing environment is achieved. GTEC Pregybel ceilings also help to control noise levels through acoustic absorption.
FIRE:	Multi-storey constructions containing bed-bound patients, large public areas, multiple service entrances and numerous circulation routes, place a high fire resistance demand on any project. GTEC Partitions and GTEC Ceilings provide a simple design with high levels of fire resistance and robust detailing for design flexibility. GTEC Shaftwall and GTEC Encasement Fire Protection solutions offer specialist passive fire protection to lifts, shafts and structural steel.
IMPACT:	Hospitals are dynamic, high traffic, public environments where walls are subject to constant impact from staff, visitors and hospital equipment. GTEC LaDura, a unique and exceptionally strong plasterboard, achieves severe duty ratings with the minimum of boarding. Plus, it provides high levels of fixing resistance for crash rails, skirting, services and fixtures.
HYGIENE:	Easy to clean surfaces are vital for good healthcare environments which need frequent washing, and are dependent on excellent hygiene. GTEC Finishing solutions combined with GTEC Partition and Lining systems offer smooth, easy to joint and repairable surfaces which are easier to clean. GTEC Megadeco Board requires no pre-sealing for even faster finishing.

KEY GUIDANCE DOCUMENTS AND REGULATIONS:

NHS Guidance:

- Acoustics: HTM 08-01
- ▶ Firecode HTM 05

- BREEAM New Construction:
- Healthcare
- Building Regulations:
- Approved Document Part B 2006 Fire Safety

ISAAC NEWTON ACADEMY ILFORD, ESSEX, UK

Sector: Education Project Value: £30 million Client: ARK Schools Architect: Feilden Clegg Bradley Studios Main Contractor: Skanska UK Plc Sub Contractor: Clark & Fenn Skanska

Siniat Innovations: LaDura

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SYSTEMS FOR EDUCATION

GTEC Plasterboard Systems have been adopted in hundreds of school, academy, college and university projects across the UK and Ireland to efficiently meet the needs of education construction.

The range of GTEC Board and GTEC Systems suit the full scope of extraordinary demands placed on education buildings.

EXTRAORDINARY DEMANDS

ACOUSTICS:	From music and sports noise to examination room silence, Education buildings place extreme acoustic demands on specification. The isolation and control of ambient noise from space to space is vital, as is good speech clarity in open spaces, along with controlled reverberation. While layout design can reduce noise risk, GTEC Systems' high level of sound insulation allows design flexibility from space to space. GTEC Pregybel ceilings offer acoustic absorption and echo control, improving speech clarity and reducing noise distractions.
FIRE:	"Each year around 1 in 20 schools experiences a fire and nearly 60% of school fires are started deliberately." BB100 Large circulation areas, multi-storey construction and broad types of use from science labs to sports halls place a high fire resistance need on any Education project.
	GTEC Partitions and GTEC Ceilings achieve high levels of fire resistance with uncomplicated, robust and proven detailing for design flexibility. GTEC Shaftwall and GTEC Encasement Fire Protection solutions offer specialist passive fire protection to lifts, shafts and structural steel.
IMPACT:	Education buildings face some of the most intense usage. With high levels of student movement, a wide variety of activities taking place and the chance of misuse, careful specification is needed to reduce maintenance and repairs. GTEC LaDura Board is exceptionally strong and achieves severe duty ratings with the minimum of boarding. It offers excellent impact performance for corridors and high levels of fixing resistance for fixtures and fittings.
DESIGN:	An innovative design can transform the learning experience of students, enhancing their performance, motivation, behaviour and engagement. Ideal for the most ambitious projects, GTEC Systems are flexible, high performance and easy to install, providing quick construction. GTEC LaDura, Aqua Board and Megadeco take plasterboard systems to new areas replacing slower, less flexible, wet construction methods.

KEY GUIDANCE DOCUMENTS AND REGULATIONS:

Department for Education Guidance:

- BB93 Acoustic Design in Schools
- BB100 Design for Fire Safety in Schools

BREEAM New Construction:

Education

Building Regulations:

- Approved Document Part E 2003 Resistance to the Passage of Sound
- Approved Document Part B 2006 Fire Safety

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LEXICON TOWER CITY ROAD, LONDON, UK

Sector: Multi-Residential

Project Value: £160 million Client: Mount Anvil and Affinity Sutton Architect: Skidmore, Owings & Merrill Main Contractor: Mount Anvil Sub Contractor: PIB Contractors

Siniat Innovations: dB Board, Fire Board, Fire MR Board

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SYSTEMS FOR RESIDENTIAL

GTEC Plasterboard Systems have been used across the UK and Ireland to successfully build or renovate thousands of housing, apartment and hotel projects.

The diverse range of GTEC Board and GTEC Systems features solutions ideal for the construction of homes and other residential buildings.

EXTRAORDINARY DEMANDS

ACOUSTICS:	Busy lifestyles, close neighbours and urban noise can all combine to affect the quality of home life. Party walls, party floors, partitions and ceilings all require special attention to reduce noise issues. GTEC Systems are tested to achieve extremely high levels of sound insulation. They meet Part E Regulations and the enhanced CSH (Code for Sustainable Homes) requirements' with the minimum of components. *+3dB and +5dB over Part E for separating elements (Code for Sustainable Homes Technical Guide – November 2010)
FIRE:	 With occupants of all ages, most often present at night while they are asleep, a fire resistant design is essential. Multi-storey buildings and their escape routes present even greater fire resistance needs, as stipulated by Building Regulations Part B – Fire Safety. GTEC Partitions and GTEC Ceilings achieve a full range of fire resistance using minimal components for multi-storey apartments, dense housing developments and detached houses. Robust and proven detailing enables design flexibility and economic construction.
SUSTAINABILITY:	 Dwellings are responsible for up to 30% of national carbon emissions through their construction and use. Huge changes to the Building Regulations have been implemented to reduce these carbon emissions representing a major shift in construction methods. GTEC Systems are made up of fully recyclable components with gypsum plasterboard being 100% re-usable in a closed loop process. Recent product innovations use minimal components to achieve technical performances, limiting material usage and waste. All GTEC Lining systems can provide insulation to enhance the thermal performance of external walls. These include the GTEC Thermal Boards range; thermally laminated plasterboards which are recommended by Approved Document L1B to achieve thermal upgrades in renovation projects.

KEY GUIDANCE DOCUMENTS AND REGULATIONS:

Building Regulations:

- Approved Document Part E 2003 Resistance to the Passage of Sound
- Approved Document Part B 2006 Fire Safety
- Approved Document Part L1 A&B 2013 Conservation of Fuel and Power

INVENTED BY SINIAT

From over 30 years of experience on building sites we know there is unmet potential in drywall and have created the boards to unlock it.

Excellent fire and acoustic performance is always expected and we have the range of boards with higher densities, highly developed additives and patented technology to achieve the top levels of fire and sound performance needed in the UK and Ireland.

But we don't consider that to be enough. Better finishing capabilities are available. As a result we are the first and only manufacturers of gypsum plasterboards which offer exceptional water resistance, exceptional strength and exceptional finishing speed.

We also know that one board can do more than one thing. Our boards combine the highest levels of performance making them suitable for a huge breadth of applications, reducing the amount of fixing, and potentially meaning only a single board type is needed on site.

OUR UNIQUE BOARDS

LaDura Type D,E,F,H1, I and R to BS EN 520

Exceptionally strong for extreme impact applications and maximum fixture pull-out resistance.

- Severe Duty performance from a single 12.5mm boarded partition
- H1 moisture resistance for humid applications
- Highest board surface mass for maximum levels of sound insulation
- Fire, sound, impact and moisture performance allowing specification of just one board type per project



See System Tables on pages 22-25 Suitable for GTEC Partitions p20 and GTEC Linings p178

Aqua Board Type GM-F, GM-H1 and GM-I to BS EN 15283

Highly water resistant gypsum board for wet areas.

- High sound and fire resistance
- Ideal for wet and humid environments
- Fully mould and fungus resistant
- May be externally exposed for up to six months for innovative construction schedules
- Dimensionally stable and easier to cut, fix and handle than cementitious boards



See System Tables on pages 26-27

Suitable for GTEC Partitions p20, GTEC Linings p178, GTEC Floors and Ceilings p120 and external sheathing

Megadeco

Type D,F, I and R to BS EN 520

Pre-sealed, white faced board for ease of decoration and finishing.

- Unique pre-sealed, white, paper facing
- Equivalent sound resistance to GTEC dB Board
- Equivalent fire resistance to GTEC Fire Board
- Substitute with GTEC Universal Board for skim plastering
- Fire, sound and impact performance allowing specification of just one board type per project



See System Tables on pages 28-31

Suitable for GTEC Partitions p20, GTEC Linings p178, GTEC Floors and Ceilings p120 and GTEC Fire Protection p242

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SYSTEM SOLUTIONS

Each of our three unique boards elevates the final layer of the partition, ceiling or lining, to previously unknown levels of standard plasterboard construction. These capabilities drive a different ethos in specifying drywall systems – the basic demands of acoustics and fire are always achievable and the focus can now switch to these extra benefits. Good design means every space has its own needs and tuning boards to best suit these demands is made possible.

FROM TWO BOARDS TO ONE

For many performance requirements the board configuration can be improved with Siniat products, from two layers of a lower spec board to just one layer of a board such as GTEC Megadeco or LaDura. This can drastically reduce the number of boards needed on site. One high performance technical board can often do the job of two standard boards. Installation time is reduced without having to fix multiple layers, there is less waste as material volumes are reduced and the whole project becomes simpler to specify and manage.

OPPOSING NEEDS

Great architectural design will not always place identical rooms on opposite sides of a partition. With Siniat systems this problem is solved with hybrid system make-ups giving different finishing performance on each side of the partition. For example, a partition between a shower room and a corridor in a school could use GTEC Aqua Board on one side and GTEC LaDura for the corridor side. The lower of the two corresponding performance values for sound or fire being would be used unless the system has been tested in a hybrid make-up.



RCP 006

- 2x12.5mm GTEC Standard Board
- 25mm Mineral Wool Insulation

Performance Fire: 60 Mins. Acoustic: 49 R_w dB Severe Duty 3.4m Max. Height Thickness: 100mm



LDP 003

- 1x 15mm GTEC LaDura Board
- 25mm Mineral
 Wool Insulation

Performance Fire: 60 Mins. Acoustic: 49 R_w dB Severe Duty 4.0m Max. Height Thickness: 100mm



Symmetrical System

 Same performance through the wall in both directions

Hybrid System

 Different finishing layer performances in different rooms

MIXING LAYERS

As Siniat's unique boards offer their key improvements to the final layer of a system it can make sense to lower the capabilities of the inner board. Lower performing base layers can be used to open up new opportunities in system design, to value engineer, or to tune performance characteristics. These standardised layers, used as a base, are composed to build a system exactly right for the situation, e.g.:

- GTEC Fire Board where fire resistance is key
- GTEC dB Board where high sound insulation is most important
- density base layer will suffice

FINISHING LAYER	HIGHER PERFORMANCE	STANDARD PERFORMANCE
	GTEC LaDura GTEC Aqua Board GTEC Megadeco GTEC Universal Board	GTEC Fire Board GTEC dB Board GTEC E Board GTEC Moisture Board GTEC Fire MR Board
BASE LAYER	HIGHER PERFORMANCE	STANDARD PERFORMANCE
	GTEC Fire Board GTEC Fire MR Board GTEC dB Board GTEC Moisture Board	GTEC Standard Board GTEC Plank GTEC E Board

NOTE: System specific system boards, e.g. GTEC Acoustic Homespan Board and GTEC Contour Board are not included in the above matrix.





Homogenous System

- Single board type required
- More limited performance

Mixed Board System

- Superior final layer performance
- Improved attenuation range

LININGS

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PARTITIONS

FLOORS AND CEILINGS

- GTEC Standard Board or Plank where a lower

THE EXTERNAL ENVELOPE

Siniat is not just about internal works - gypsum solutions are revolutionising the external envelope too. Siniat has developed Weather Defence – an external sheathing board which has transformed building envelope performance and construction. Weather Defence is made from gypsum and has a patented hydrophobic core and water resistant liner – and is a replacement for cement particle boards.

It is being used on hundreds of projects throughout the UK because its benefits have proved too many for designers and installers to ignore.

It has been specified by 45% of AJ100 British Architects.

For a detailed guide to Weather Defence, including system performances and installation guide, please refer to our Weather Defence brochure, available from:

www.siniat.co.uk/weatherdefence T: 01275 377582 E: literatureline@siniat.co.uk



INTRODUCTION

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REFERENCE

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Sector: Education Project Value: £10.5 million Client: South Devon UTC Architect: Stride Treglown Main Contractor: BAM Construction Ltd Sub Contractor: External: Korbuild Internals: CAP Ceilings & Partitions

Siniat Innovations: Weather Defence

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SYSTEM PERFORMANCE

Gypsum is a naturally fire resistant material, locking in water which will be released during a fire. This water controls the temperature allowing plasterboard systems to survive a fire for substantial lengths of time.

The requirement for fire protection in a project is driven by the Building Regulations, fire strategy and any high risk equipment or activity in a building. The ratings in this manual represent the minimum passive fire protection that can be expected in a fire and can be used to show compliance with the current Building Regulations in the UK and Northern Ireland.

The fire ratings of the systems are determined by testing and assessment to British and European standards. In the UK the BS 476 series of test standards and BS EN 1363, 1364, 1365 standards are used to establish the fire resistance of building elements such as walls and ceilings. A different temperature monitoring method is adopted in the European test methods and the results obtained are not the same as the British Standard results; both results are declared in this manual where possible. The tests are carried out in 3m x 3m aperture furnaces which simulate the most intensive period in a fire. The results of these tests are expressed in terms of integrity, insulation and loadbearing capacity (where applicable).

	TYPICAL PARTITION AND FLOOR REQUIREMENTS*
30 mins	Between rooms within a dwelling or office unit
60 mins	Separating adjacent units in low rise buildings
90 mins	Between units in medium rise buildings
120 mins	Fire fighting or escape routes and between units in higher rise buildings

 $\ensuremath{^*\!Consult}$ relevant building regulations and fire strategy consultants for precise needs

The ratings in the system tables give the worst of the three criteria rounded down to the nearest 30, 60, 90 or 120 minutes, e.g. if insulation fails before integrity or loadbearing capacity then this will be the rating quoted.

GTEC products are tested for reaction to fire and other fire sensitive properties to European and British Standards test methods and are classified as Materials of Limited Combustibility Euroclass A2-s1-d0, the second highest performance level for construction materials. In UK Building Regulations plasterboard products are generally considered Class 0.

System Ref.	Component	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. B5476-22 B5 EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf, R, dB (C, if applicable)
LDP 008: C St	ud Partition - see p50						
E	Facing Outer Layer(s): 1x 12.5mm GTEC LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 15km/ml class	27	3.7	95	30 30	Severe	48

ACOUSTICS

Control of sound in buildings is essential for comfort. Plasterboard systems can assist with acoustic requirements in two ways, through sound insulation and sound absorption. Sound insulation is principally driven by the surface mass of a building element. As a thin, dense material plasterboard can be used to provide adaptable solutions for minimising sound transmission. Plasterboards generally reflect sound, however, perforated boards enable effective sound absorbing systems to be built.

For residential construction the Building Regulations contain minimum values for sound transmission between rooms and absorption within communal areas. For many other projects acoustics are beyond the remit of building regulations. It is essential to consider the noise tolerance and noise output of neighbouring spaces to select the right levels of sound insulation for the separating element, consultation with acousticians is recommended.

The sound insulation values quoted in this manual use consistent laboratory testing to allow system comparison. Elements are placed in an aperture between spaces with the reduction in sound pressure between the two spaces being recorded; this testing is carried out to BS EN ISO 140 and BS EN ISO 717 standards. The result is the Weighted Sound Reduction Index (R_w) measured in decibels (dB) with higher values offering better insulation.

Site testing uses a different measurement method of Standardised Level Difference $(D_{nT,w})$ where values around 7dB lower than laboratory tests can be expected. It is critical to seal all air paths, avoid routes for sound to 'flank' the element and build to high standards to achieve

R _w dB	RELATIVE ACOUSTIC PRIVACY
30	Normal conversation can be distinguished
35	Loud conversation can be distinguished
40	Loud conversation can be heard but not distinguished
45	Loud conversation cannot be heard
50	Shouting can be heard but not distinguished
55	All speech is totally blocked with a high level of privacy from other domestic noise
60	High level of privacy including noise from television or stereos

the best site results – just one air path can dramatically diminish the sound insulation of an element.

Sound absorption is calculated through laboratory testing to European and ISO standards where a component is located in a space with known reverberation – the resulting reduction in reverberation time gives a coefficient of sound absorption. This co-efficient varies between 0 and 1 with higher values representing greater absorption per square metre.

System Ref.	Component	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf, R_dB (C _t if applicable
LDP 008: C 5	itud Partition – see p50						
E	Facing Outer Layer(s): 1x 12:5mm GTEC LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres	27	3.7	95	30 30	Severe	48

STRUCTURE

A major advantage of plasterboard systems is their low mass to height/span ratio, this enables tall partitions and wide spans to be created without imposing high loads on structures supporting the system. As a lightweight system overall robustness must be considered and by using the correct framework and board combinations extremely tough partitions, ceilings and linings can be built.

The maximum height of a partition is determined from its ability to resist a uniformly distributed lateral pressure, taken as 0.2kN/m² for most internal applications, and limiting the resulting deflection to height/240. Greater lateral pressures and other imposed loads are possible and depend on the layout adopted. The 'Strength' criterion in the System Performance Tables is determined according to the test methods and criteria given in BS 5234-2. There are four grades in the standard, increasing in robustness from Light, Medium, Heavy to Severe Duty. In most projects the use of the lowest duty grade will result in walls which are too flexible for the expectations of users and are not generally recommended. Based on extensive testing and calculations the height values shown in this manual are the maximum that the system can safely satisfy when fully built. Care must be taken during construction to ensure that the construction sequence does not undermine structural strength and construction loads are not applied to the systems.

The ceiling systems in this publication will not support imposed loads in addition to those given in the appropriate sections. Fixings to structural elements must be determined by suitably qualified professionals and are not the responsibility of Siniat.

GRADE	CATEGORY	EXAMPLES
Light Duty	Adjacent space only accessible to persons with high incentive to exercise care. Small chances of accident or of misuse.	Domestic accommodation
Medium Duty	Adjacent space moderately used primarily by persons with some incentive to exercise care. Chances of accident occurring and of misuse.	Office accommodation
Heavy Duty	Adjacent space frequently used by the public and others with little incentive to exercise care. Chances of accident occurring and of misuse.	Public circulation areas Industrial areas
Severe Duty	Adjacent space intensively used by the public and others with little incentive to exercise care. Prone to vandalism and abnormally rough use.	Major circulation areas Heavy industrial areas
Table extract from BS 5234-2	2: 1992	

System Ref.	Component	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. B5476-22 B5 EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf. R dB (C, if applicable)
LDP 008: C S	tud Partition – see p50						
E	Facing Outer Layer(s): 1x 12.5mm GTEC LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kn/m1 class	27	3.7	95	30 30	Severe	48

THERMAL

Plasterboard is not a low conductivity material but can be combined easily with different types of thermal insulation to create systems or products (such as GTEC Thermal Boards) which offer excellent thermal insulation properties. Plasterboard systems can contribute to construction with the most thermally efficient U-values satisfying new build or renovation building regulation requirements.

Plasterboard is dimensionally stable and can be ideal as the air-tightness envelope in a building, with projects typically achieving $3m^3/hr/m^2$ @ 50Pa, exceeding the building regulation requirement. The stability of plasterboard systems also allows construction independent of the substrate to prevent thermal bridging.

The U-values quoted in the system performance tables can be used in SAP and SBEM calculations either as part of an external element or as the whole element where no other material is involved. For thermal upgrades to existing dwellings the default U-values for construction types and ages found in RdSAP 2009 have been used to indicate a resulting U-value with GTEC products and systems. Only a select range of systems configurations can be shown in this manual so it is often possible to achieve improved U-values by changing the quality and quantity of insulation, contact Technical Services for further information.

U-values are calculated, following the conventions of BR 443, using specialist calculation software, from conductivity values in international standards or manufacturers' information. In product reference tables the quoted conductivity values (λ) W/mK for the materials in specific products have been used to calculate the thermal resistance (R) mK/W for that product. The GTEC range does not include independent insulation and therefore U-values should always be checked against manufacturer's data for the actual insulation used in construction.

TYPICAL U-VALUES		RENOVATION	NEW		
I ON FANT L 2010	App. Doc. L1B/L2B	App. Doc. L1B/L2B	App. Doc. L1B/L2B	App. Doc. L1A/L1B	Low Carbon*
	'New'	'Improved'	'Threshold'	'Limiting'	Construction
Wall (cavity insulation in place)	0.28	0.55	0.70	-	_
Wall	0.28	0.30	0.70	0.30	0.15
Pitched roof (insulation at ceiling level)	0.16	0.16	0.35	0.20	0.13
Pitched roof (insulation at rafter level)	0.18	0.18	0.35	0.20	0.13
Flat roof	0.18	0.18	0.35	0.20	0.13
Floors	0.22	0.25	0.70	0.25	0.12
Thermal Bridging (W/m²K)	-	-	-	-	0.04
Air permeability (m³/hr/m² @ 50Pa)	-	-	-	-	5.2

*Worked examples to meet Fabric Energy Efficiency Standard (FEES) proposals for detached house – Zero Carbon Hub 2012

System Ref.	Component	Max Height (m)	Min Thickness (mm)	U-Value (W/m ² k)	Fire Perf. BS476-21 BS EN 1365-1 (mins)	Acoustic Perf, R_dB (C, where applicable
RFL 002		-				
	Facing Inner Layer(s): – Facing Outer Layer(s): 1x 15mm GTEC Vapour Fire Board Lining: Sheathing board – Recommended	2.4		0.30	30 30	51



PARTITIONS

The GTEC range of metal stud profiles provides system solutions for most building projects. Combining the right GTEC plasterboard, fixings, frame and finishing products, gives partition solutions up to the most demanding levels of fire, acoustic and thermal performance.

System Performance Tables

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GTEC E Board Partition Systems	44
GTEC Structural Frame Partition Systems	45
Masonry Robust Detail Systems	46
GTEC Timber Partition Systems	47
GTEC C Stud Partitions	50
GTEC Acoustic Stud Partitions	72
GTEC Acoustic Homespan Partitions	80
GTEC Resilient Bar Partitions	88
GTEC Twin Frame Partitions	94
GTEC Timber Partitions	110

PARTITIONS

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LADURA PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	5 5254-2	applicable)
LDP 008: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	27	3.7	95	30 30	Severe	48
LDP 001: C Stud	l Partition – see p50						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	33	4.0	100	60 60	Severe	41
LDP 003: C Stud	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	33	4.0	100	60 60	Severe	49
ADP 003: Acous	tic Stud Partition – see p72						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	33	3.8	100	60 60	Severe	51
LDP 004: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	33	4.0	100	60 60	Severe	50
LDP 050: C Stud	d Partition – see p50						
	Facing Inner Layer(s): 1x 9.5mm GTEC Standard Board Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	45	4.6	120	60 60	Severe	56

See p49 for notes on alterations to partition configuration.

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	50 525 1 2	applicable)
LDP 011: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm LaDura Board Facing Outer Layer(s): 1x 12.5mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	52	5	120	120 90	Severe	56
LDP 011F: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	52	5	120	120 120	Severe	56
LDP 024: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 15mm LaDura Board Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	64	5.6	130	120 120	Severe	57
LDP 128: C Stud	l Partition – see p50						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	33	5.0	120	60 60	Severe	50
LDP 138: C Stud	l Partition – see p50						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	33	5.0	120	60 60	Severe	51

LADURA PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	1364-1 (mins)	BS 5234-2	(C _{tr} if applicable)
ADP 138: Acous	tic Stud Partition – see p72						
	Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC AS90Rx Acoustic C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	33	4.7	120	60 60	Severe	52
LDP 086: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	52	6.2	145	60 60	Severe	56
LDP 130: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm LaDura Board Facing Outer Layer(s): 1x 12.5mm LaDura Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	52	6.4	140	120 90	Severe	57
ADP 130: Acous	tic Stud Partition – see p72						
	Facing Inner Layer(s): 1x 12.5mm LaDura Board Facing Outer Layer(s): 1x 12.5mm LaDura Board Studs: Single GTEC AS90Rx Acoustic C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	52	6.4	140	120 90	Severe	60
LDP 140: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 15mm LaDura Board Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	64	7.2	150	120 120	Severe	58

See p49 for notes on alterations to partition configuration.

System Ref.	Component	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf. $R_w dB$ $(C_{tr} if$ applicable)
	Frame Partition – see p94 Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Twin GTEC CS50Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 1500mm centres	33	5.0	170	60 60	Severe	56
	Frame Partition – see p94 Facing Inner Layer(s): 1x 15mm LaDura Board Facing Outer Layer(s): 1x 15mm LaDura Board Studs: Twin GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 1500mm centres	64	6.4	200	120 120	Severe	65, -8 Ctr

AQUA BOARD PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	5 5254-2	applicable)
RAP 004: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm Aqua Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	23	3.2	95	30 30	Medium	46
RAP 001: C Stud	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Aqua Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	28	3.6	100	60 60	Severe	40
RAP 003: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Aqua Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	28	3.6	100	60 60	Severe	46
RAP 044: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Aqua Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	28	3.6	100	60 60	Severe	47
RMAP 003: C SI	ud Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Aqua Board, 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	28	3.6	100	60 60	Severe	46
RMAP 004: C S	tud Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Aqua Board, 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	28	3.6	100	60 60	Severe	47

See p49 for notes on alterations to partition configuration.

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. $R_w dB$ $(C_{tr} if$
System Ref.	Component	(Kg/m²)	(m)	(mm)	(mins)		applicable)
AMAP 004: Acc	oustic C Stud Partition – see p50)					
	Facing Outer Layer(s): 1x 15mm Aqua Board, 1x 15mm Megadeco Board Studs: Single GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: GTEC AS70Rx Acoustic C Studs at 600mm centres Accessories: –	28	3.6	100	60 60	Severe	52
RMAP 050: C S	tud Partition – see p50						
	Facing Inner Layer(s): 1x 9.5mm GTEC Standard Board Facing Outer Layer(s): 1x 15mm Aqua Board, 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	44	4.4	120	60 60	Severe	56

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MEGADECO PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB (C_if		
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)		
RMP 001: C Stu	d Partition – see p50								
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	27	3.8	100	60 60	Severe	40		
RMP 003: C Stu	d Partition – see p50								
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	27	3.8	100	60 60	Severe	49		
RMP 004: C Stu	RMP 004: C Stud Partition – see p50								
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	27	3.8	100	60 60	Severe	50		
AMP 004: Acou	stic Stud Partition – see p72								
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	30	3.65	100	60 60	Severe	48		
AMP 140: Acous	stic Stud Partition – see p72								
	Facing Outer Layer(s): 1x 15mm Megadeco Board Facing Inner Layer(s): 1x 15mm Megadeco Board inside studs one side Studs: GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	27	3.65	100	60 60	Severe	53		

See p49 for notes on alterations to partition configuration.

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		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R dB (C _{tr} if
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)
	Ad Partition – see p50 Facing Inner Layer(s): 1x 9.5mm GTEC Standard Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	40	4.6	120	60 60	Severe	56
RMP 009: C Stu	ud Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	43	4.6	120	120 120	Severe	52
RMP 011: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm Megadeco Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	44	4.6	120	120 120	Severe	56
RMP 127: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: – Accessories: –	27	4.6	120	60 60	Severe	42
RMP 128: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	27	4.6	120	60 60	Severe	50
RMP 138: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	27	4.6	120	60 60	Severe	51

MEGADECO PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	85 5234-2	(C _{tr} If applicable)
AMP 141: Acous	tic Stud Partition – see p72						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Facing Inner Layer(s): 1x 15mm Megadeco Board inside studs one side Studs: Single GTEC AS90Rx Acoustic C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	40	4.35	120	60 60	Severe	54
AMP 138: Acous	stic Stud Partition – see p72						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC AS90Rx Acoustic C Studs at 600mm centres Insulation: 75mm 16kg/m ³ glass mineral wool Accessories: –	31	4.35	120	60 60	Severe	52
RMP 130: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC dB Board Facing Outer Layer(s): 1x 12.5mm Megadeco Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	45	5.8	140	90 90	Severe	57
RMP 140: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	54	6.5	150	90 90	Severe	58
AMP 142: Acous	stic Stud Partition - see p72						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC AS90Rx Acoustic C Studs at 600mm centres Insulation: 75mm 16kg/m ³ glass mineral wool Accessories: –	53	6.3	150	90 90	Severe	60

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB (C _{tr} if
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)
RMP 062: C Stu	ıd Partition – see p50	1					
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS146Y C Studs at 600mm centres Insulation: – Accessories:–	29	8.8	176	60 60	Severe	42
RMP 075: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	28	7.3	176	60 60	Severe	52
RMP 017: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	57	8.9	206	90 90	Severe	57
RMP 038: C Stu	ıd Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Twin GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 1500mm centres	55	5.3	200	120 90	Severe	63 -8 Ctr
AMP 017: Acous	stic Stud Partition – see p72	1					
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm Megadeco Board Studs: Single GTEC AS146Rx C Studs at 600mm centres Insulation: 100mm 10kg/m ³ glass mineral wool Accessories: –	54	7.35	206	120 120	Severe	61 -6 Ctr

GTEC UNIVERSAL BOARD PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R, dB (C, if
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)
RUP 055: C Stud Partition - see p50							
	Facing Outer Layer(s): 1x 12.5mm GTEC Universal Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	24	3.5	95	60 30	Heavy	45
RUP 001: C Stud	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm GTEC Universal Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	27	3.8	100	60 60	Severe	40
RUP 048: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Universal Board Facing Outer Layer(s): 1x 12.5mm GTEC Universal Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	46	4.6	120	120 120	Severe	55
RUP 053: C Stud Partition – see p50							
	Facing Inner Layer(s): 1x 12.5mm GTEC Universal Board Facing Outer Layer(s): 1x 12.5mm GTEC Universal Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: – Accessories: –	46	8.5	196	120 120	Severe	50
RUP 054: C Stud Partition – see p50							
	Facing Inner Layer(s): 1x 12.5mm GTEC Universal Board Facing Outer Layer(s): 1x 12.5mm GTEC Universal Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	47	8.5	196	120 120	Severe	57

See p49 for notes on alterations to partition configuration.

GTEC dB BOARD PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R. dB	
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	85 5254-2	(C _{tr} If applicable)	
RSP 001: C Stud	l Partition – see p50							
	Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: – Accessories: –	27	3.0	80	30 30	Heavy	40	
RSP 002: C Stud Partition – see p50								
	Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	23	2.75	75	30 30	Medium	44	
RSP 006: C Stud Partition – see p50								
	Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	23	3.5	95	30 30	Medium	40	
RSP 028: C Stud	d Partition – see p50							
	Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	23	3.5	95	30 30	Medium	45	
RSP 007: C Stud Partition – see p50								
	Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	27	3.75	100	30 30	Heavy	42	
RSP 008: C Stud Partition – see p50								
	Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	27	3.75	100	30 30	Heavy	46	

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GTEC dB BOARD PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	1364-1 (mins)	BS 5234-2	(C _{tr} if applicable)
ASP 003: Acoustic Stud Partition – see p72							
	Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: –	28	3.65	100	30 30	Heavy	49
RSP 027: C Stud Partition – see p50							
	Facing Inner Layer(s): 1x 12.5mm GTEC dB Board Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	45	3.6	100	60 60	Severe	53
ASP 011: Acoustic Stud Partition – see p72							
	Facing Inner Layer(s): 1x 12.5mm GTEC dB Board Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	45	4.6	120	60 60	Severe	57
RSP 013: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	53	5.1	130	90 90	Severe	56
ASP 013: Acoustic Stud Partition – see p72							
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: GTEC AS70Rx Acoustic C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	53	5.1	130	90 60	Severe	57

See p49 for notes on alterations to partition configuration.
		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB (C_if
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)
RSP 017: C Stuc	l Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	54	8.9	206	90 90	Severe	57
RSP 038: Twin	Frame Partition – see p94						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Twin GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 1500mm centres	54	5.3	200	90 60	Severe	63 -7 Ctr
RSP 022: Twin I	Frame Partition – see p94						
	Facing Inner Layer(s): 1x 12.5mm GTEC dB Board Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Studs: Twin GTEC CS90W C Studs at 600mm centres Insulation: 100mm 10kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 3000mm centres plus extension	52	9.10	295	60 60	Severe	67 -9 Ctr
RSP 023: Twin I	Frame Partition – see p94						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Twin GTEC CS90W C Studs at 600mm centres Insulation: 100mm 10kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 3000mm centres plus extension	60	9.10	300	90 60	Severe	69 -9 Ctr

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GTEC dB BOARD PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	1364-1 (mins)	BS 5234-2	(C _{tr} if applicable)
RSP 037: Twin F	rame Partition – see p94						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 2x 15mm GTEC dB Board Studs: Twin GTEC CS90W C Studs at 600mm centres Insulation: 2x 100mm 10kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 3000mm centres plus extension	86	12	400	120 90	Severe	74 -7 Ctr
RSP 085: I Stud	Partition – contact Technical S	ervices					
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Staggered GTEC IS60B I-Studs at 300mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: 72mm GTEC Track with IS10 clips	56	5.3	130	60 60	Severe	59
RSP 157: Resilie	nt Bar Partition – see p88						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: Single GTEC Resilient Bar at 600mm vertical centres	54	3.7	147	90 90	Severe	62 -9 Ctr
RSP 159: Resilie	nt Bar Partition – see p88						
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: Single GTEC Resilient Bar at 600mm vertical centres	54	7.2	223	90 90	Severe	63 -8 Ctr

See p49 for notes on alterations to partition configuration.

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System Ref. ASP 017: Acous	Component tic Stud Partition - see p72	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf. $R_w dB$ $(C_t if$ applicable)
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Single GTEC AS146Rx C Studs at 600mm centres Insulation: 100mm 10kg/m ³ glass mineral wool Accessories: –	55	7.85	206	90 90	Severe	61 -6 Ctr

GTEC FIRE BOARD PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	1364-1 (mins)	BS 5234-2	(C _{tr} If applicable)
RFP 016: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	42	3.4	100	120 120	Severe	52
RFP 044: C Stud	l Partition – see p50						
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	26	3.4	100	60 60	Heavy	47
RFP 054: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	42	4.3	120	120 120	Severe	46
RFP 050: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	42	4.3	120	120 120	Severe	53
RFP 045: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: – Accessories: –	50	4.5	130	120 120	Severe	48

See p49 for notes on alterations to partition configuration.

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	1364-1 (mins)	BS 5234-2	(C _{tr} if applicable)
RFP 046: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	51	4.5	130	120 120	Severe	56
RFP 127: C Stud	Partition – see p50						
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: – Accessories: –	26	4.15	120	60 60	Heavy	40
RFP 134: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: None Accessories: –	42	5.3	140	120 120	Severe	48
RFP 135: C Stud	Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS90Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	42	5.3	140	120 120	Severe	56
RFP 062: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: – Accessories: –	26	6.6	176	60 60	Heavy	42

GTEC FIRE BOARD PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	03 5254-2	applicable)
RFP 076: C Stuc	Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	43	8.0	196	120 120	Severe	57
RFP 112: Fire Wa	all Partition – contact Technical	Service	s				
	Facing Inner Layer(s): 3x 15mm GTEC Fire Board down centre Facing Outer Layer(s): 2x 15mm GTEC Fire Board each side Studs: Twin Staggered GTEC CS50Rx C Studs at 600mm centres Insulation: 2x 25mm 16kg/m ³ glass mineral wool Accessories: –	88	6	205	240 240	Severe	65 -10 Ctr
RFP 157: Resilie	nt Bar Partition – see p88						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 50mm 16kg/m ³ glass mineral wool Accessories: Single GTEC Resilient Bar at 600mm vertical centres	50	3.3	147	120 120	Severe	61 -7 Ctr
RFP 038: Twin F	Frame Partition – see p94						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Twin GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: GTEC V-Brace at 1500mm centres	52	4.5	200	120 120	Severe	62 -7 Ctr

GTEC STANDARD BOARD PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)
RCP 001: C Stud	d Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: – Accessories: –	17	2.6	75	30 -	Medium	34
RCP 002: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 33kg/m ³ rock mineral wool Accessories: –	18	2.6	75	30 30	Medium	41
RCP 042: C Stu	d Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 33kg/m ³ rock mineral wool Accessories: –	18	3.2	95	30 30	Medium	42
RCP 045: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: None Accessories: –	34	4.05	120	60 30	Severe	45
RCP 046: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	35	4.05	120	60 30	Severe	49

GTEC STANDARD BOARD PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	85 5254-2	applicable)
RCP 064: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: None Accessories: –	35	7.6	196	60 30	Severe	48
RCP 067: C Stud	d Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	35	7.6	196	60 30	Severe	52
RCP 068: C Stu	d Partition – see p50						
	Facing Inner Layer(s): 1x 15mm GTEC Standard Board Facing Outer Layer(s): 1x 15mm GTEC Standard Board Studs: Single GTEC CS146Rx C Studs at 600mm centres Insulation: 25mm 33kg/m ³ rock mineral wool Accessories: –	43	8.2	206	90 60	Severe	56

See p49 for notes on alterations to partition configuration.

GTEC ACOUSTIC HOMESPAN PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB (C _r if		
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)		applicable)		
AHP 001: Acous	tic Homespan Partition – see p8	30							
E	Facing Outer Layer(s): 1x 15mm GTEC Acoustic Homespan Board Studs: GTEC AHS44Rx Acoustic Homespan Studs at 450mm centres Insulation: – Accessories: –	28	2.7	74	30 30	Heavy	40		
AHP 002: Acoustic Homespan Partition – see p80									
	Facing Outer Layer(s): 1x 15mm GTEC Acoustic Homespan Board Studs: GTEC AHS44Rx Acoustic Homespan Studs at 450mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	29	2.7	74	30 30	Heavy	43		
AHP 003: Acous	tic Homespan Partition – see p8	30							
E	Facing Outer Layer(s): 1x 15mm GTEC Acoustic Homespan Board Studs: GTEC AHS50Rx Acoustic Homespan Studs at 450mm centres Insulation: – Accessories: –	28	2.8	80	30 30	Heavy	41		
AHP 004: Acous	stic Homespan Partition – see p8	30							
	Facing Outer Layer(s): 1x 15mm GTEC Acoustic Homespan Board Studs: GTEC AHS50Rx Acoustic Homespan Studs at 450mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	29	2.8	80	30 30	Heavy	43		

GTEC E BOARD PARTITION SYSTEMS

System Def	Component	System Weight (kg/m²)	Max. Height (m)	Overall Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234-2	Acoustic Perf. $R_w dB$ $(C_{tr} if$ applicable)
REP 002: C Stud	Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC E Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	21	2.6	75	30 30	Medium	41
REP 005: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC E Board Facing Outer Layer(s): 1x 12.5mm GTEC E Board Studs: Single GTEC CS50Rx C Studs at 600mm centres Insulation: None Accessories: –	41	3.4	100	60 60	Severe	43
REP 042: C Stud	l Partition – see p50						
	Facing Outer Layer(s): 1x 12.5mm GTEC E Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	21	3.35	95	30 30	Medium	42
REP 045: C Stud	l Partition – see p50						
	Facing Inner Layer(s): 1x 12.5mm GTEC E Board Facing Outer Layer(s): 1x 12.5mm GTEC E Board Studs: Single GTEC CS70Rx C Studs at 600mm centres Insulation: None Accessories: –	41	4.3	120	60 60	Severe	46

See p49 for notes on alterations to partition configuration.

GTEC STRUCTURAL FRAME PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-21 BS EN 1365-1	Strength Duty Rating to BS 5234-2	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	03 <i>5254 2</i>	applicable)
E-WS-1							
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Twin Structural C-Studs at 600mm centres Insulation: 1x 50mm 33-60kg/m ³ mineral wool Accessories: –	_	4.5	310	60 60	Severe	Robust Detail Solution
E-WS-1 alt.		1					
	Facing Inner Layer(s): 1x 19mm GTEC Plank Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Twin Structural C-Studs at 600mm centres Insulation: 1x 50mm 33-60kg/m ³ mineral wool Accessories: –	-	4.5	315	60 60	Severe	Robust Detail Solution
RLB 003							
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: Twin 100mm Structural C-Studs at 600mm centres Insulation: 2x 75mm 24kg/m ³ glass mineral wool Accessories: –	_	4.0	310	90 60	Severe	66 -9 Ctr
RLB 014							
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1 x 15mm GTEC Fire Board Studs: Single 150mm Structural C-Studs at 600mm centres Insulation: 50mm 24kg/m ³ glass mineral wool Accessories: Single GTEC Resilient Bar at 600mm vertical centres both sides	_	4.5	245	60 60	Severe	61 -7 Ctr

MASONRY ROBUST DETAIL SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-21 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	65 5254-2	applicable)
E-WM-3							
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board both sides Lining: Sand Cement render Universal Bonding Compound to form 10mm cavity Cavity: 75mm; Insulation: – Internal Wall Leaf: 100mm Blocks Density 1850-2300kg/m ³ External Wall Leaf: 100mm Blocks Density 1850-2300kg/m ³	-	5.2	315	240 240	-	Robust Detail Solution
E-WM-4							
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board both sides Lining: GTEC E Coat Render Universal Bonding Compound to form 10mm cavity Cavity: 75mm; Insulation: – Internal Wall Leaf: 100mm Blocks Density 1350-1600kg/m ³ External Wall Leaf: 100mm Blocks Density 1350-1600kg/m ³	-	5.2	315	240 240	-	Robust Detail Solution
E-WM-5							
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board both sides Lining: Sand Cement render Universal Bonding Compound to form 10mm cavity Cavity: 75mm; Insulation: – Internal Wall Leaf: 100mm Star Performer Blocks External Wall Leaf: 100mm Star Performer Blocks	_	5.2	315	240 240	-	Robust Detail Solution
E-WM-11							
	Facing Outer Layer(s): GTEC 12.5mm Standard Board both sides Lining: GTEC E Coat Render Universal Bonding Compound to form 10mm cavity Cavity: 100mm; Insulation: – Internal Wall Leaf: 100mm Blocks Density 1350-1600kg/m ³ External Wall Leaf: 100mm Blocks Density 1350-1600kg/m ³	_	5.2	315	240 240	-	Robust Detail Solution

See p49 for notes on alterations to partition configuration.

GTEC TIMBER PARTITION SYSTEMS

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 Non-load bearing (NLB) BS EN 1364-1	Fire Perf. BS476-21 Load bearing (LB) BS EN 1365-1	Strength Duty Rating to BS 5234	Acoustic Perf. $\mathbf{R}_{w} \mathbf{dB}$ $(\mathbf{C}_{w} \text{ if}$ applicable)
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	(mins)		
RTP 152: Timbe	r Partition – see p110							
	Facing Inner Layer(s): 1x 15mm GTEC dB Board Facing Outer Layer(s): 1x 15mm GTEC dB Board Studs: 38x89mm Timber Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: GTEC Resilient Bar at 600mm centres	55	3.6	166	60 60	60 60	Severe	57
RTP 021: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: 38x63mm Timber Studs at 600mm centres Insulation: – Accessories: –	21	3.0	88	30 30	-	Medium	36
RTP 001: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x63mm Timber Studs at 600mm centres Insulation: – Accessories: –	18	3.0	88	30 -	-	Medium	35
RTP 005: Timbe	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x63mm Timber Studs at 600mm centres Insulation: – Accessories: –	18	3.0	88	30 -	-	Medium	35
RTP 005: Timbe	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x63mm Timber Studs at 600mm centres Insulation: – Accessories: – Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x89mm Timber Studs at 600mm centres Insulation: – Accessories: –	18 21	3.0	88	30 - 30 30	- - 30 -	Medium	35
RTP 005: Timbe	Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x63mm Timber Studs at 600mm centres Insulation: – Accessories: – Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x89mm Timber Studs at 600mm centres Insulation: – Accessories: –	21	3.0	88	30 - 30 30	- - 30 -	Medium	35

FLOORS AND CEILINGS

REFERENCE

GTEC TIMBER PARTITION SYSTEMS continued

		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 Non-load bearing (NLB) BS EN 1364-1	Fire Perf. BS476-21 Load bearing (LB) BS EN 1365-1	Strength Duty Rating to BS 5234	Acoustic Perf. $R_w dB$ $(C_{tr} if$ applicable)
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	(mins)		
RFL 011 RD: Tim	iber Partition – see p11	0						
	Facing Inner Layer(s): 1x 19mm GTEC Plank Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: Twin 38x89mm Timber Studs at 600mm centres Insulation: 2x 50mm 16kg/m ³ glass mineral wool Accessories: Brace at mid height	53	5.8	295	60 60	60 60	Severe	65 -12Ctr
RFL 050 RD: Tir	nber Partition – see p1 [•]	10						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: Twin 38x89mm Timber Studs at 600mm centres Insulation: 2x 50mm 16kg/m ³ glass mineral wool Accessories: Brace at mid height	54	5.7	290	60 60	60 60	Severe	66 -9Ctr
RTP 006: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: 50x100mm Timber Studs at 600mm centres Insulation: – Accessories: –	28	4.7	130	60 30	60 30	Heavy	38
RTP 012: Timbe	r Partition – see p110							
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 50x75mm Timber Studs at 600mm centres Insulation: – Accessories: –	36	2.9	125	60 30	60 30	Severe	43
RTP 035: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: 38x88mm Timber Studs at 600mm centres Insulation: – Accessories: –	23	3.9	113	30 30	30 30	Medium	36

See p49 for notes on alterations to partition configuration.

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		System Weight	Max. Height	Overall Thickness	Fire Perf. BS476-22 Non-load bearing (NLB) BS EN 1364-1	Fire Perf. BS476-21 Load bearing (LB) BS EN 1365-1	Strength Duty Rating to BS 5234	Acoustic Perf. $R_w dB$ $(C_{tr} if$ applicable)
System Ref.	Component	(kg/m²)	(m)	(mm)	(mins)	(mins)		
RTP 043: Timbe	r Partition – see p110							
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Studs: 38x88mm Timber Studs at 600mm centres Insulation: – Accessories: –	39	3.4	138	60 60	60 60	Severe	45
RTP 045: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: 38x88mm Timber Studs at 600mm centres Insulation: – Accessories: –	27	3.5	118	60 30	30 -	Heavy	37
RTP 047: Timbe	r Partition – see p110							
	Facing Outer Layer(s): 1x 15mm GTEC Fire Board Studs: 38x88mm Timber Studs at 600mm centres Insulation: 25mm 16kg/m ³ glass mineral wool Accessories: –	27	3.5	118	60 30	30 -	Heavy	41
RTP 059: Timbe	RTP 059: Timber Partition – see p110							
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Studs: 38x88mm Timber Studs at 600mm centres Insulation: – Accessories: –	35	3.4	138	30 30	30	Severe	42

PARTITION PERFORMANCE NOTES

- Performance values are for imperforate, jointed systems using Siniat GTEC components (metal studs and tracks, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type, thickness and density) and installed to Siniat specification and installation guides.
- Any alterations may impair the quoted performance. Contact Technical Services for further system configurations and their resulting performances.
 All maximum partition heights are calculated with a uniform lateral pressure of 0.2kN/m², the quoted height reflects the most onerous deflection limit of two conditions: 10mm deflection at 1.5m height (equivalent to Severe duty); or maximum deflection of height/240 at mid-height.
- Maximum height can be increased by 0.3m for single layer boarding and by 0.6m for double layer boarding when studs centres are reduced to 400mm.
- It may be possible to increase heights from those quoted in the system tables where reduced deflection limits or pressure criteria are acceptable.
- The maximum partition height may vary from the quoted values if the fire resistance of the system is specified according to BS EN 1364-1.
- Insulation shown may be replaced with thicker and/or heavier quilt material without impairing the quoted performances.

See pages 16-19 for further explanation of the performance values quoted in system tables.

GTEC C STUD PARTITION SYSTEMS

GTEC Metal Stud Partitioning is an economical, friction-fit system for assembling internal partitions. The unique design of the components ensures high strength, easy installation and a higher performing alternative to traditional timber frame partitions.

GTEC C Stud Partitions are constructed using a frame of GTEC U Track at the head and base with GTEC C Studs for vertical framing elements. A range of GTEC C Stud and U Track widths allow varying partition depth, enhancing fire resistance, sound insulation and maximum heights. For individual system performances, refer to the System Performance Tables on pages 22 to 44.

WHERE TO USE:

 GTEC C Stud Partitions create internal dividing walls within both domestic and commercial projects.

FEATURES	BENEFITS
Strong	Less material is required than a similar timber frame structure
Lightweight	Multiple lengths can be carried at one time
Natural resistance to bowing, bending and insect infestation	Metal maintains shape, removing the chance of 'screw popping'
High fire resistance levels	Fire performance levels are easily achieved using metal
High acoustic performance levels	Acoustic performance levels are easily achieved using metal
Flat finish	Provides an easy surface for decoration



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference			
BOARDS					
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p22-44			
FRAME					
	GTEC C Stud Metal profile for vertical frame elements	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/B, CS90/W, CS70/Y, CS90/Y, CS146/Y			
	GTEC U Track Metal profile for head and base frame elements	UT52/RX, UT62/RX, UT72/RX, UT92/RX, UT148/RX			
	GTEC U Track Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UDT62/B, UDT72/B, UDT92/B, UDT148/B			
	GTEC U Track Extra Deep Flange Used for partitions with heights exceeding 7.2m and with deflection heads	UXT72/B, UXT92/W, UXT148/W			
	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX			
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330			
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W			
Inapper	GTEC Flex Track Deep Flange Steel track for curved partitions	DFLEX/B			
INSULATION					
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others			
	GTEC Insulation Hold Secures insulation to prevent slump	INSR			
FIX					
v//	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See fixing selector, p334-335			
FINISHING					
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a			
	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a			
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a			
Brec C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280			
erer Synaal Sector	GTEC Sealers To seal plasterboard prior to decoration	n/a			
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2			

SYSTEM GUIDANCE

FRAME

PT-CS-101S-Head - no deflection



PT-CS-103S-Base with timber sole plate and screed



GTEC Board to suit required performance 5mm shorter than floor to ceiling height GTEC C Stud cut 5mm shorter than floor to ceiling height screw fix plasterboard to track GTEC Intumescent Acoustic Sealant GTEC U Track fixed at 600mm centres

PT-CS-104P-End detail

PT-CS-102S-Base



PT-CS-105M-Stud splice



PARTITIONS

FLOORS AND CEILINGS

LININGS

FIRE PROTECTION

FINISHING

FRAME continued

- Select compatible sizes (e.g. 50mm stud and 52mm track) of GTEC C Stud and GTEC U Track framing elements to meet system performance.
- GTEC U Track Deep or Extra Deep Flange to be used for heights greater than 4.2m and where deflection allowance is required.
- Studs abutting structure (starter studs) to be fixed with web flat to structure using appropriate fixings by others at maximum 600mm centres and fixed to head and track with appropriate GTEC Drywall Screws (see screw selector, p334-335).
- GTEC U Track to be fixed flat to structure using appropriate fixings by others at maximum 600mm centres.
- Timber sole plate may be required on uneven floors or where partition is constructed prior to screeding.

- Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- All GTEC C Studs to be 5mm shorter than floor to ceiling height except in case of head deflection requirement (see p61).
- Intermediate GTEC C Studs, facing in same direction, to be friction fitted into tracks to allow for adjustment during boarding.
- GTEC C Studs to be at centres required to meet system performance with a maximum of 600mm centres.
- Where wall height exceeds available GTEC Stud length splice two lengths together ensuring overlap of 600mm for heights less than 4m and 1000mm for heights more than 4m.

INSULATION

PT-CS-151M-Insulation Hold



- Insulation, if required, to be of type and thickness to achieve performance and installed in a continuous layer between frames or studs.
- Where insulation may be expected to slump suspend from GTEC Insulation Hold strips fixed across studs, 150mm from top of partition and at 1200mm vertical centres.

BOARDING

PT-CS-201M-Board fixing – single layer



PT-CS-203M-Horizontal joint reinforcement, single layer



- GTEC Twin Frame partition system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Performance Tables (p22-24) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide (p12-15) for further selection information.
- Boards to be 5mm less than floor to ceiling height except in case of deflection requirement, see p61.
- Strips of board 300mm wide or less to be avoided by stud location rearrangement.

PT-CS-202M-Board fixing – double layer







- Boards to be mechanically fixed to studs at 300mm centres using appropriate GTEC Drywall Screws (see screw selector, p334-335).
- Base layers of boarding may be temporarily fixed at 600mm centres providing final layer is fixed through to stud at 300mm centres.
- Board edges to be centred over studs.
- Stagger all board joints between layers.
- Stagger all board joints on opposing sides of partition.

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BOARDING continued

Over-height single layer boarding:

Where partition height exceeds board height GTEC Flat Strap FS90/W or GTEC MFIX to be fixed behind all horizontal joints to provide substrate for board fixing.

Over-height multiple layer boarding:

Where partition height exceeds board height for double or multiple layer boarding GTEC Flat Strap FS50/RX to be fixed behind all horizontal joints in outer layer of board.

MOVEMENT CONTROL JOINTS

PT-CS-301P-Movement control joint – single boarded



- Form movement control joints at maximum 10m intervals in the partition run.
- Form movement control joints where the partition crosses a structural movement joint.

PT-CS-302P-Movement control joint – double boarded



 Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS

PT-CS-401P-Door frames - 30kg to 100kg door loads



PT-CS-403E-Single and double door frames



A

OPENINGS continued

- Form openings following guidance in Construction Detail Drawings to suit door weights.
- Reinforce head-to-jamb junction 150mm down each jamb stud by cutting and folding head track.
- Reinforce jamb studs with timber and boxed studs as described in Construction Detail Drawings.
- Jamb studs to be fixed to track with appropriate GTEC Drywall Screws (see screw selector, p334-335).

CORNERS AND JUNCTIONS

PT-CS-501P-Corner detail, single layer



PT-CS-503P-Non-acoustic T-junction, single layer



PT-CS-502P-Corner detail, double layer



PT-CS-504P-Non-acoustic T-junction, double layer



GTEC Intumescent

Acoustic Sealant

GTEC Intumescent

Acoustic Sealant

stud to stud connection on

alternating sides



screw fix

plasterboard to stud

Min. 10mm gap

GTEC Board

to suit required performance

PT-CS-506P-Acoustic rated T-junctions, double layer





PT-CS-507P-Splayed corners



PT-CS-509P-Junction with Masonry – Plastered







CORNERS AND JUNCTIONS continued

PT-CS-509P-Junction with Masonry – Plastered



PT-CS-513P-T-Junction of Single into Twin Frame



- Abutting partitions to coincide with studs, install additional intermediate 'pick-up' stud if required.
- Connect studs through plasterboards at corners and junctions at 600mm vertical centres using appropriate GTEC Drywall Screws.



PT-CS-514P-T-Junction of Twin into Single Frame



 See Construction Details Drawings for further guidance on arrangement and fixing.

HEAD DEFLECTION

PT-CS-601S-Deflection head, general arrangement



Deflection required:	Packer for all fire ratings:	Track for all fire ratings:	30 & 60 mins	90 & 120 mins
0-5mm	12.5mm GTEC Fire Board	GTEC U Track (UT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
6-10mm	15mm GTEC Fire Board	GTEC U Track (UT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
11-20mm	2x 12.5mm GTEC Fire Board or 25mm GTEC Fire Core Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
21-25mm	2x 15mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
26-32mm	3x 12.5mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
33-40mm	3x 15mm GTEC Fire Board	GTEC Extra Deep Flange U Track (UXT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
41-45mm	2x 25mm GTEC Fire Core Board or 4x 12.5mm GTEC Fire Board	GTEC Extra Deep Flange U Track (UXT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle

HEAD DEFLECTION continued

PT-CS-603S-Def. Head – parallel to profiled soffit



PT-CS-605S-Def. Head – perpendicular to complex profile



PT-CS-606S-Def. Head - parallel to purlins - purlins cloaked



PT-CS-604S-Def. Head – perpendicular to simple profile



PT-CS-608S-Def. Head – perpendicular to purlins

PT-CS-609S-Def. Head - under beam





PT-CS-610M-Telescopic deflection head assembly



HEAD DEFLECTION continued

PT-CS-611S-Telescopic deflection head – parallel to purlins



- See Construction Detail Drawings and Tables for full details. Contact Siniat Technical Services for further information.
- Continuity of head packer to be maintained.
- No mechanical connection to be made between stud and head track.
- All air paths to be sealed with GTEC Intumescent Acoustic Sealant.

- GTEC Studs to be cut short of track by deflection amount.
- GTEC Studs and Tracks to overlap by minimum 20mm.
- GTEC Boards to be short of partition height by deflection amount.
- GTEC Boards to overlap packer by minimum of 5mm.

PENETRATIONS

PT-CS-701P-Small diameter pipe penetration



PT-CS-703M-Cable tray penetration at soffit



PT-CS-702E-Cable tray penetration



PT-CS-704E-Socket pad fitting



PENETRATIONS continued

PT-CS-705P-Multiple pipe penetrations – Single frame



PT-CS-706S Fire damper



- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated partitions.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

PT-CS-801M-Flat strap for light-weight fixings

PT-CS-802M-Plywood pattress for heavy-weight fixings

GTEC C Stud GTEC Shallow Wall Channel screw fix 15mm plywood to **GTEC Shallow Wall Channel** at max. 300mm centres GTEC Flat Strap or Fixing Channel to provide fixing screw fix GTEC Shallow Wall reinforcement Channel to GTEC C Stud at max. 300mm centres fix final layer of board to stud over pattress and through channel face ISOMETRIC

PT-CS-803M-Timber support for extreme-weight fixings



PT-CS-804M-LaDura adhesive pattress for heavy-weight fixings



FIXTURES continued

PT-CS-806S-LaDura pattress types for fixings both sides



- Select fixture details for recommended fixture provision in combination with fixing capability.
- Appropriate fixings for loadings and substrate to be supplied by others.
- Site testing of fixings with plasterboard is recommended.
- LaDura is recommended as pattress or facing to enhance mechanical resistance of the fixing.
- Mobile or adjustable fixtures, e.g. swing arm brackets require pattressing.
- For high loadings partitions must be checked for overall robustness and upgrades of studs may be required.
- GTEC Boards have been tested for pull-out strength in combination with Spit fixings, see maximum loadings and required arrangements in summary table. For complete results please consult Technical Services. Other manufacturer's fixings will require further testing before use.

PT-CS-807M-Spit fixings



DESIGN PULL-OUT LOADS (kN) including safety factor

	With 15mm La	Dura pattress	Without	pattress			
Board Arrangement	Spit Driva®	Spit Hollow Wall Anchor	Spit Driva®	Spit Hollow Wall Anchor			
Single layer 15mm GTEC Standard Boards*	0.35	0.7	0.15	0.35			
Single layer 15mm GTEC Technical Boards**	0.35	0.75	0.2	0.4			
Single layer 15mm LaDura	0.4	0.85	0.25	0.5			
Double layer 15mm GTEC Standard Boards*	0.4	0.85	0.25	0.55			
Double layer 15mm GTEC Technical Boards**	0.45	1.0	0.3	0.65			
Double layer 15mm LaDura	0.5	1.15	0.4	0.85			

*Standard boards are those up to 10kg/m² for 15mm boards **Technical boards are those up to 13kg/m² for 15mm boards

FINISHING

 All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Finish materials appropriate to board type to be used.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.

CURVED PARTITIONS

PT-CS-901M-Single frame curved partition


CURVED PARTITIONS continued

PT-CS-902M-Flex track component



PT-CS-903P-Curved partition plan



	MAXIMUM STUD CENTRES (mm)			
Radius (m)	6mm GTEC Contour Board	9.5mm GTEC Board	12.5mm GTEC Board	15mm GTEC Board
0.6 – 0.9	150 Wet	-	-	_
0.9 – 1.0	200 Dry	150 Wet	-	_
1.0 – 1.5	200 Dry	200 Wet	150 Wet	_
1.5 – 2.0	200 Dry	250 Wet	200 Wet	_
2.0 - 3.0	200 Dry	300 Wet	200 Wet	150 Wet
3.0 - 4.0	300 Dry	450 Wet	400 Wet	200 Wet
4.0 - 8.0	300 Dry	450 Wet	500 Wet	400 Wet
8.0 – 12.0	300 Dry	600 Dry	600 Dry	600 Wet
12.0 -	300 Dry	600 Dry	600 Dry	600 Dry

- Fix boards to continuous band of GTEC Flat Strap FS90/W behind all horizontal joints.
- Consult Technical Services for further guidance on curved partition specification.
- System performance may vary.

PARTITIONS

GTEC ACOUSTIC STUD PARTITION SYSTEMS

The GTEC Acoustic Stud is an alternative to 70mm, 90mm and 146mm GTEC C Studs, where higher levels of acoustic performance are needed from a partition.

With a unique profile design, the engineered slots create a spring section, resulting in less acoustic energy being transmitted through the stud and sound is absorbed within the partition.

Compatibility with the GTEC C Stud system and all GTEC Boards allows a range of partition performances within identical footprints. For individual system performances, refer to the System Performance Tables on pages 22 to 44.

WHERE TO USE:

 GTEC Acoustic Stud is an internal partition system for commercial and domestic applications requiring high acoustic performance levels.

FEATURES	BENEFITS
Compatible with GTEC U Tracks	Only requires one change in component in a specification and on site
	Partition types can be mixed on site
Unique spring section design	Can eliminate insulation or board layers to achieve acoustic performance

Benefits from all key features as detailed for GTEC C Stud, plus:



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference	
BOARDS			
	All GTEC Boards Provides wall surface suitable for finishing	See performance table, p22-44	
FRAME			
	GTEC Acoustic Stud Metal profile for vertical frame elements with improved acoustic performance	AS70/RX, AS90/RX, AS146/RX	
	GTEC C Stud Metal profile for vertical frame elements at corners, door openings, abutments	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/B, CS90/W, CS70/Y, CS90/Y, CS146/Y	
	GTEC U Track Metal profile for head and base frame elements	UT52/RX, UT62/RX, UT72/RX, UT92/RX, UT148/RX	
	GTEC U Track Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UDT62/B, UDT72/B, UDT92/B, UDT148/B	
	GTEC U Track Extra Deep Flange Used for partitions with heights exceeding 7.2m and with deflection heads	UXT72/B, UXT92/W, UXT148/W	
	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX	
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330	
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W	
INSULATION			
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others	
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR	
FIX			
×//	GTEC Screws (as appropriate) For connecting plasterboard and metal components	See fixing selector, p334-335	
FINISHING			
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a	
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a	
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a	
Brec State	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280	
ATEC THE AND	GTEC Sealers To seal plasterboard prior to decoration	n/a	
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2	

SYSTEM GUIDANCE

See guidance in GTEC C Stud section and additional considerations given below:

FRAME

PT-AS-101M-Stud splice



- Select compatible size (e.g. 70mm stud and 72mm track) GTEC Acoustic Stud, GTEC C Stud and GTEC U Track framing elements to suit system performance.
- Studs abutting structure (starter studs) to be GTEC C Stud, fixed with web flat to structure using appropriate fixings at maximum 600mm centres and fixed to head and track with appropriate GTEC Drywall Screws (see screw selector, p334-335).
- All GTEC C and Acoustic Studs to be 5mm shorter than floor to ceiling height or to suit deflection.

- Intermediate studs to be GTEC Acoustic Studs, facing in same direction, to be friction fitted to allow for adjustment during boarding.
- GTEC Studs to be at centres required to achieve performance and at a maximum of 600mm centres
- Where wall height exceeds available GTEC Stud length splice two lengths together ensuring overlap of 600mm for heights below 4m and 1000mm for heights above 4m.

BOARDING

PT-AS-201M- Horizontal joint reinforcement, single layer



fixing strap to reinforce horizontal edge of boards where partition > board height screw fix to fixing strap at max. 300mm centres GTEC Flat Strap FS50/RX screw fix strap to stud through board

PT-AS-203M-Board fixing - single layer





PT-AS-204M-Board fixing – double layer

 GTEC Acoustic Stud partition system is suitable for single, double and multiple layer boarding.



OPENINGS

PT-AS-401P- Door frames – 25 to 100kg



- Form openings following guidance in Construction Detail Drawings to suit door weights.
- GTEC C Studs to be used as jambs at openings to provide flat web for fixing.

CORNERS AND JUNCTIONS

PT-AS-501P- Acoustic T-junction, double layer



 GTEC C Studs to be used at corners and junctions to provide flat web for fixing. PT-AS-502P-Corner – double layer



 See Construction Details Drawings for further guidance on arrangement and fixing.

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X

X

CURVED PARTITIONS

 GTEC Acoustic Studs are not suitable for use in curved partitions.



GTEC ACOUSTIC HOMESPAN PARTITION SYSTEMS

The GTEC Acoustic Homespan system is a lightweight partition specifically designed to meet Building Regulation Part E where 40R dB is required for internal partitions in dwellings. This performance is achieved using 44mm and 50mm GTEC Acoustic Homespan Studs and Tracks and GTEC Acoustic Homespan Board without the need to install insulation to achieve a 40R dB rating.

The narrow stud width and specially configured boards simplify specification and use the least material to achieve the demands of Part E.

WHERE TO USE:

 GTEC Acoustic Homespan is an internal partition for new-build domestic applications.

Benefits from all key features as detailed for GTEC C Stud, plus:

FEATURES	BENEFITS
Achieves acoustic performance using narrow width studs	Maintains a low system footprint to minimise the effect on the room size
Achieves acoustic performance without the need for insulation	Quicker to install than other systems which use insulation to achieve the same performance



REFERENCE

SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference	
BOARDS			
	GTEC Acoustic Homespan Board 900mm board to provide wall surface suitable for finishing	See performance table, p43	
	GTEC Acoustic Homespan MR Board Moisture resistant 900mm board	See performance table	
FRAME			
	GTEC Acoustic Homespan Stud Metal profile for vertical frame elements with improved acoustic performance	AHS44/RX, AHS50/RX	
	GTEC Acoustic Homespan Starter Stud Metal profile for vertical frame elements at corners, door openings, abutments	CS44/RX, CS50/RX	
	GTEC U Track Metal profile for head and base frame elements	UT45/RX, UT52/RX	
INSULATION			
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others	
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR	
FIX			
v//	GTEC Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334-335	
FINISHING			
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a	
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a	
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a	
Brace Contract	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280	
draz and the System Sector	GTEC Sealers To seal plasterboard prior to decoration	n/a	
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2	

GTEC ACOUSTIC HOMESPAN PARTITION

SYSTEM GUIDANCE

See guidance in GTEC C Stud section and additional considerations given below:

FRAME

- Select compatible size (e.g. 44mm stud and 45mm track) GTEC Acoustic Homespan Stud, GTEC Acoustic Homespan Starter Stud and GTEC U Track framing elements to suit system performance.
- GTEC Acoustic Homespan is not suitable for heights above 2.8m and so does not require deeper flange tracks.
- Studs abutting structure to be GTEC Acoustic Homespan Starter Studs fixed with web flat to structure using appropriate fixings at maximum 600mm centres and fixed to head and track with appropriate GTEC Drywall Screws (see screw selector, p334-335).

INSULATION

Insulation is not required to achieve 40 R_wdB performance with the GTEC Acoustic Homespan system but may be fitted to increase performance, see performance tables p43.

- Intermediate GTEC Acoustic Homespan Studs, facing in same direction, to be friction fitted to allow for adjustment during boarding.
- All GTEC Studs to be 5mm shorter than floor to ceiling height.
- GTEC Acoustic Homespan Studs to be at a maximum of 450mm centres.

BOARDING

PT-AH-201M-Horizontal joint reinforcement, single layer



PT-AH-203M-Board fixing – single layer



REFERENCE

OPENINGS

PT-AH-401P-Door frames – 25kg to 50kg door loads



 Form openings following guidance in Construction Detail Drawings to suit door weights. GTEC Acoustic Homespan Starter Studs to be used as jambs at openings to provide flat web for fixing.

CORNERS AND JUNCTIONS

PT-AH-501P-Acoustic T-junction, single layer



▶ GTEC Acoustic Homespan Starter Studs to be ▶ See Construction Details Drawings for further used at corners and junctions to provide flat web for fixing.



CURVED PARTITIONS

▶ GTEC Acoustic Homespan Studs are not suitable for use in curved partitions.







GTEC RESILIENT BAR PARTITION SYSTEMS

GTEC Resilient Bar is a versatile component that can be used with a variety of partitions to provide improved acoustic performance.

GTEC Resilient Bar decouples the plasterboard from the metal frame to reduce sound transmission with little increase in thickness. It is fixed across the flanges of GTEC C Stud to provide a substrate for the plasterboard away from the metal framing. Refer to the System Performance Tables on pages 22 to 44 for full details.

See the GTEC Timber Partitions section for details on using the GTEC Resilient Bar with timber construction.

WHERE TO USE:

 GTEC Resilient Bar is used with the GTEC C Stud Partition system in both domestic and commercial applications.

FEATURES	BENEFITS
Easy to fit and install	Reduced installation time compared with more complex systems
Low profile component design	Increases acoustics with minimal effect on room size
Decouples board and frame	Gives increase in acoustic performance



50mm maximum from floor

SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference	
BOARDS			
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p22-44	
FRAME			
	GTEC Resilient Bar Metal profile to provides acoustic separation of board and frame	RBD3000	
	GTEC C Stud Metal profile for vertical frame elements	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/W, CS90/W, CS70/Y, CS146/Y	
	GTEC U Track Metal profile for head and base frame elements	UT52/RX, UT62/RX, UT72/RX, UT92/RX, UT148/RX	
	GTEC U Track Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UDT62/B, UDT72/B, UDT92/B, UDT148/B	
	GTEC U Track Extra Deep Flange Used for partitions with heights exceeding 7.2m and with deflection heads	UXT72/B, UXT92/W, UXT148/W	
	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX	
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330	
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W	
INSULATION			
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others	
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR	
FIX			
s //	GTEC Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334-335	
FINISHING			
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a	
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a	
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a	
Brac Contract	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280	
draz and a	GTEC Sealers To seal plasterboard prior to decoration	n/a	
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2	

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SYSTEM GUIDANCE

See guidance in GTEC C Stud section and additional considerations given below:

FRAME



 GTEC Resilient Bar to be installed on one side of partition, across studs at 600mm vertical centres and fixed to each stud with suitable GTEC Drywall Screws (see screw selector, p334-335).





- Uppermost GTEC Resilient Bar to be installed in inverted position at maximum of 50mm from top of partition.
- Lowest GTEC Resilient Bar to be installed at maximum of 50mm from base of partition.

BOARDING

PT-RB-201M-Board fixing – double layer



- GTEC Resilient Bar partition system is suitable for single and double layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Tables (p22-44) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide (p12-15) for further selection information.
- Boards to be fixed to GTEC Resilient Bar only at 300mm centres using shortest appropriate GTEC Drywall Screws (see screw selector, p334-335). Screws must not penetrate through to substrate.
- Base and final layers of boarding to be fixed at 300mm centres.
- Boards must not be fixed to studs or tracks to ensure acoustic performance.

OPENINGS

PT-RB-401P-Door frame – 25-100 kg



PT-RB-402M-Horizontal joint reinforcement



 Form openings following guidance in Construction Detail Drawings to suit door weights.

PARTITIONS

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CORNERS AND JUNCTIONS

PT-RB-501P-Junction with masonry wall



PT-RB-502P-Corner detail (External Resbar)



PT-RB-503P-Corner detail (Internal Resbar)





 See Construction Details Drawings for further guidance on arrangement and fixing.

CURVED PARTITIONS

 GTEC Resilient Bar is not suitable for curved partitions.

GTEC TWIN FRAME PARTITION SYSTEMS

Separating walls and divisions between noisy or noise sensitive rooms requires very high levels of sound insulation. The GTEC Twin Frame metal system is a dual layer C Stud Partition used where the highest fire and acoustic performance is required.

GTEC Twin Frame Partitions are constructed from two metal frames in parallel, braced together with GTEC Acoustic V Brace and boarded on the external sides only. Varying cavity size options help optimise acoustic insulation and provide a service cavity. The GTEC Twin Frame system is a lightweight, flexible option compared to traditional masonry separating walls. Refer to the System Performance Tables on pages 22 to 45 for full performance details.

WHERE TO USE:

- GTEC Twin Frame systems are suitable for creating internal dividing walls in both domestic and commercial applications with increased performance and / or height requirements.
- The highest performing GTEC Twin Frame partitions are commonly used in cinemas, theatres and schools.

Benefits from all key features as detailed for GTEC C Stud, plus:

FEATURES	BENEFITS
Cavity space between the two frames	Provides high levels of acoustic, thermal and fire performance
Varying cavity size	Optimisable for obstacles in the path of the partition
	Higher partition heights
Increased height capabilities	Enables use in large commercial spaces



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing	See performance table, p22-45
FRAME		
	GTEC C Stud Metal profile for vertical frame elements	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/B, CS90/W, CS70/Y, CS90/Y, CS146/Y
	GTEC I Stud Alternative metal profile for vertical frame elements	IS50/RX, IS60/B, IS60/B, IS70/B, IS90/B
	GTEC U Track Metal profile for head and base frame elements	UT52/RX, UT62/RX, UT72/RX, UT92/RX, UT148/RX
	GTEC U Track Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UDT62/B, UDT72/B, UDT92/B, UDT148/B
	GTEC U Track Extra Deep Flange Used for partitions with heights exceeding 7.2m and with deflection heads	UXT72/B, UXT92/W, UXT148/W
	GTEC Acoustic V Brace Acoustic frame bracing	VBRACE
	GTEC Acoustic V Brace 90 Acoustic frame bracing for connecting at 90°	VBRACE90
0	GTEC Resilient Tape Provides acoustic isolation between components	RAFT50
	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W
Incase!	GTEC Flex Track Deep Flange Steel track for curved partitions	DFLEX/B
INSULATION		
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR

System Component	System primary use	Product Reference
FIX		
«//	GTEC Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334-335
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
A Gree Stand	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
drag and an	GTEC Sealers To seal plasterboard prior to decoration	n/a
•	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2

SYSTEM GUIDANCE

FRAME

PT-CT-101S-Head - no deflection



PT-CT-102S-Base



80

FRAME continued

PT-CT-103S-Base with timber sole plate and screed



- Select compatible size (e.g. 50mm stud and 52mm track) GTEC C Stud and GTEC U Track framing elements to suit system performance.
- GTEC U Track Deep or Extra Deep Flange to be used for heights greater than 4.2m and where deflection allowance is required (see p105).
- GTEC Twin Frame partition to be constructed using two parallel track and stud frames braced together with GTEC Acoustic V Brace at 1500mm vertical centres, mechanically fixed to both studs with four appropriate GTEC Drywall screws (see screw selector, p334-335).
- Separate parallel frames as required by system performance. Where frame separation is wider than GTEC Acoustic V Brace extend with additional length of GTEC Primary Channel or Dryliner Channel.
- Studs abutting structure (starter studs) to be fixed with web flat to structure using appropriate fixings at maximum 600mm centres and fixed to head and track with appropriate GTEC Drywall Screws (see screw selector, p334-335).
- GTEC U Track to be fixed flat to structure using appropriate fixings at maximum 600mm centres.

- Timber sole plate may be required on uneven floors or where partition is constructed prior to screeding.
- Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- All GTEC C Studs to be 5mm shorter than floor to ceiling height except in case of deflection requirement (see p105).
- Intermediate GTEC C Studs, facing in same direction, to be friction fitted to allow for adjustment during boarding.
- GTEC C Studs to be at centres required to achieve performance and at a maximum of 600mm centres.
- Where wall height exceeds available GTEC Stud length splice two lengths together ensuring overlap of 600mm for heights below 4m and 1000mm for heights above 4m.
- Acoustic break in slab for party walls may be required.

PT-CT-104M-Stud splice



PT-CT-105M-V-brace fixing and extensions



INSULATION

PT-CT-151M-Insulation Hold



- Insulation, if required, to be of type and thickness to achieve performance and installed in a continuous layer between studs.
- Where insulation may be expected to slump suspend from GTEC Insulation Hold strips fixed across studs, 150mm from top of partition and at 1200mm vertical centres.

BOARDING

PT-CT-201M-Board fixing – double layer



- GTEC Twin Frame partition system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Tables (p22-45) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide (p12-15) for further selection information.
- Boards to be 5mm less than floor to ceiling height except in case of deflection requirement, see below.
- Strips of board 300mm wide or less to be avoided by stud location rearrangement.

PT-CT-202M-Horizontal joint reinforcement



- Boards to be mechanically fixed to studs at 300mm centres using appropriate GTEC Drywall Screws (see screw selector and guidance, p334-335).
- Base layers of boarding may be temporarily fixed at 600mm centres providing final layer is fixed through to stud at 300mm centres.
- Board edges to be centred over studs.
- Stagger all board joints between layers.
- Stagger all board joints on opposing sides of partition.

Over-height single layer boarding:

Where partition height exceeds board height fix boards to continuous band of GTEC Flat Strap FS90/W or GTEC MFIX behind all horizontal joints to maintain fire integrity.

Over-height multiple layer boarding:

Where partition height exceeds board height for double or multiple layer boarding fix outer layer of boards to continuous band of GTEC Flat Strap FS50/RX behind outer horizontal joints.

MOVEMENT CONTROL JOINTS

PT-CT-301P-Movement control joint – double boarded



- Form movement control joints at maximum 10m intervals in the partition run.
- Form movement control joints where the partition crosses a structural movement joint.
- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS

PT-CT-401P-Door frames – 25kg to 100kg door loads



PT-CT-403E-Single and double door frames



- ▶ Form openings following guidance in Construction Detail Drawings to suit door weights.
- Reinforce head-to-jamb junction 150mm down each jamb stud by cutting and folding head track.
- Reinforce jamb studs with timber and boxed studs as described in Construction Detail Drawings.
- Jamb studs to be fixed to track with appropriate GTEC Drywall Screws (see screw selector, p334-335).

CORNERS AND JUNCTIONS

PT-CT-501P-Corner detail, double layer





PT-CT-502P-Acoustic T-junctions, double layer

PARTITIONS

CORNERS AND JUNCTIONS continued

PT-CT-503P-Splayed corners



PT-CT-505P-Junction with Masonry – Plastered



- Abutting partitions to coincide with studs, install additional intermediate 'pick-up' stud if required.
- Connect studs through plasterboards at corners and junctions at 600mm vertical centres using appropriate GTEC Drywall Screws.
- See Construction Details Drawings for further guidance on arrangement and fixing.







PT-CT-507P-Junction with external SFS wall, acoustic rated

HEAD DEFLECTION

PT-CT-601S-Deflection head, general arrangement



Deflection required:	Packer for all fire ratings:	Track for all fire ratings:	30 & 60 mins	90 & 120 mins
0-5mm	12.5mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
6-10mm	15mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
11-20mm	2x 12.5mm GTEC Fire Board or 25mm GTEC Fire Core Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
21-25mm	2x 15mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
26-32mm	3x 12.5mm GTEC Fire Board	GTEC Deep Flange U Track (UDT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
33-40mm	3x 15mm GTEC Fire Board	GTEC Extra Deep Flange U Track (UXT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle
41-45mm	2x 25mm GTEC Fire Core Board or 4x 12.5mm GTEC Fire Board	GTEC Extra Deep Flange U Track (UXT)	GTEC Intumescent Acoustic Sealant	Mineral wool & cloaking angle

HEAD DEFLECTION continued

- See Construction Detail Drawings and Tables for full details. Contact Siniat Technical Services for further information.
- Continuity of head packer to be maintained.
- No mechanical connection to be made between stud and head track.
- All air paths to be sealed with GTEC Intumescent Acoustic Sealant.

- GTEC Studs to be cut short of track by deflection amount.
- GTEC Studs and Tracks to overlap by minimum 30mm.
- GTEC Boards to be cut short of partition height by deflection amount.
- GTEC Boards to overlap packer by minimum of 5mm.

PENETRATIONS

PT-CT-701P-Small diameter pipe penetration



PT-CT-703M-Socket pad



PT-CT-702E-Cable tray penetration



- M&E runs and other penetrating services to be pre-planned to minimise or eliminate penetrations through rated partitions.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.
PT-CT-704P-Multiple pipe penetrations



FIXTURES

 Consult fixture details in GTEC C Stud Section (p67-69) for recommended fixture provision.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.

CURVED PARTITIONS

PT-CT-901M-Curved partition



PT-CT-902M-Flex track component



Boards to be installed horizontally.

- Fix boards to continuous band of GTEC Flat Strap FS90/W behind all horizontal joints.
- Consult Technical Services for further guidance on curved partition specification.

PT-CT-903P-Twin frame curved partition plan



	MAXIMUM STUD CENTRES (mm)					
Radius (m)	6mm GTEC Contour Board	9.5mm GTEC Board	12.5mm GTEC Board	15mm GTEC Board		
0.6 – 0.9	150 Wet	-	_	-		
0.9 – 1.0	200 Dry	150 Wet	-	-		
1.0 – 1.5	200 Dry	200 Wet	150 Wet	-		
1.5 – 2.0	200 Dry	250 Wet	200 Wet	_		
2.0 - 3.0	200 Dry	300 Wet	200 Wet	150 Wet		
3.0 - 4.0	300 Dry	450 Wet	400 Wet	200 Wet		
4.0 - 8.0	300 Dry	450 Wet	500 Wet	400 Wet		
8.0 – 12.0	300 Dry	600 Dry	600 Dry	600 Wet		
12.0 -	300 Dry	600 Dry	600 Dry	600 Dry		

PARTITIONS

GTEC TIMBER PARTITION SYSTEMS

In timber frame construction or where traditional methods dominate, a timber partition may be the preferred construction method.

GTEC Timber Partitions use timber studs and plates in place of metal framing with GTEC Board screw fixed to complete the partition. Refer to the System Performance Tables on pages 47 to 49 for full details.

Separating walls can also be constructed with double layers of GTEC Board and twin timber frames built in parallel to create a separating cavity. Insulation is applied in between for further sound reduction.

WHERE TO USE:

 GTEC Timber Partitions are used to create internal and separating partitions within domestic applications.

FEATURES	BENEFITS
Strong	Less material required than masonry construction
GTEC Resilient Bar option	Provides improved acoustic performance
Compatible with full range of GTEC boards	Achieves excellent partition performance
Flat finish	Provides an easy surface for decoration
Cavity space between two frames	High levels of acoustic and fire performance



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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p47-49
FRAME		
	Timber Drywall partition framing	Supplied by others
	GTEC Resilient Bar Metal profile to provides acoustic separation of board and frame	RBD3000
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W
Incast	GTEC Flex Track Deep Flange Steel track for curved partitions	DFLEX/B
INSULATION		
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others
1	GTEC Insulation Hold Secures insulation to prevent slump	INSR
FIX		
~//	GTEC High Thread Screws (as appropriate) For attaching plasterboard to timber frame	See screw selector, p334-335
FINISHING		
	GTEC Corner and Edge beads Galvanised metal reinforcements for corner and edge protection	n/a
-	GTEC Joint Tape White perforated cross fibre tape for reinforcing joints in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
The Construction	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
erzz ta (** Jreed Josep	GTEC Sealers To seal plasterboard prior to decoration	n/a
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2

SYSTEM GUIDANCE

FRAME

PT-TS-101S-Head Detail (Load Bearing)



PT-TS-103S-Base Detail (Load Bearing)



PT-TS-105P-End Detail





PT-TS-104S-Base Detail (Non-Load Bearing)

PT-TS-102S-Head Detail (Non-Load Bearing)



FRAME continued





- Timber stud framing to be straight, plumb and true. Studs to be fixed to timber sole and head plates.
- All framing elements abutting structure to be fixed at maximum 600mm centres using appropriate fixings.
- Studs to have minimum board bearing width of 38mm.
- Studs to be arranged at maximum 400mm centres for 9.5mm board and maximum 600mm centres for 12.5 and 15mm board.

GTEC Resilient Bar option only:

PT-TT-102S-Base Detail

- GTEC Resilient Bar may be installed on one side of partition, across studs at 600mm vertical centres and fixed to each stud with suitable GTEC Drywall Screws (see screw selector, p334-335).
- Uppermost GTEC Resilient Bar to be installed in inverted position at maximum of 50mm from top of partition.
- Lowest GTEC Resilient Bar to be installed at maximum of 50mm from base of partition.

INSULATION

PT-TS-151M-Insulation Hold



Insulation, if required, to be of type and thickness to achieve performance and installed in a continuous layer between frames or studs to suit required performance. Where insulation may be expected to slump suspend from GTEC Insulation Hold strips fixed across studs, 150mm from top of partition and at 1200mm vertical centres.

BOARDING

PT-TS-201M-Board fixing – single layer



PT-TS-202M-Overheight partition - single layer



BOARDING continued

PT-TS-203M-Overheight partition – double layer



PT-TT-202M-Overheight partitions - double layer



- GTEC Timber Single Stud partition system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Performance Tables (p47-49) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide (p12-15) for further selection information.
- Boards to be 5mm less than floor to ceiling height.
- Strips of board 300mm wide or less to be avoided by stud arrangement.





PT-TT-203M-Overheight partitions – Single layer



- Boards to be mechanically fixed to studs at 300mm centres using appropriate GTEC High-Thread Drywall Screws (see screw selector, p334-335).
- Base layers of boarding may be temporarily fixed at 600mm centres providing final layer is fixed through to stud at 300mm centres
- Board edges to be centred over studs.
- Stagger all board joints between layers.
- Stagger all board joints on opposing sides of partition.

Over-height single layer boarding:

Where partition height exceeds board height fix boards to continuous band of GTEC Flat Strap FS90/W, GTEC MFIX, or timber nogging behind all horizontal joints to maintain fire integrity.

Over-height multiple layer boarding:

Where partition height exceeds board height for double or multiple layer boarding fix outer layer of boards to continuous band of GTEC Flat Strap FS50/RX behind all horizontal joints.

GTEC Resilient Bar option only:

- Boards to be mechanically fixed to GTEC Resilient Bar only at 300mm centres using shortest appropriate GTEC Drywall Screws (see screw selector, p334-335). Screws must not penetrate through to substrate.
- All layers of boarding to be fixed at 300mm centres.
- Boards must not be fixed to studs or tracks to ensure acoustic performance.

OPENINGS

PT-TS-401P-Door jamb



 Form door openings following guidance in Construction Detail Drawings to suit door weights.



A

CORNERS AND JUNCTIONS

PT-TS-501P-Corner Detail



PT-TS-503P-Junction of Twin and Single partition (LB)





screw fix plasterboard

to suit required performance

to stud

GTEC Board

PT-TS-504P-Non-rated T-junction



- Abutting partitions to coincide with studs, install additional intermediate 'pick-up' stud if required.
- Additional studs to be installed where required to provide fixing substrate for boards.
- See Construction Details Drawings for further guidance on arrangement and fixing.

HEAD DEFLECTION

 Timber stud partitions are not generally compatible with deflection head requirements.

PENETRATIONS

- M&E runs and other penetrating services to be pre-planned to minimise or eliminate penetrations through rated partitions.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

See guidance on p67-69 for further information.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.

FIRE PROTECTION



FLOORS AND CEILINGS

GTEC Floor and Ceiling systems are used to achieve acoustic and fire rated solutions for both domestic and commercial building projects.

A range of solutions are available; from direct soffit application to the creation of full supporting frames. They are suitable for varying building projects and can be built in large runs.

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REFERENCE

GTEC ENGINEERED JOIST SYSTEMS

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R, dB (C, where	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	(mins)	applicable)	(L _{nw} dB)
REJ 023: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: – Structure: min. 240mm engineered timber I-joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	29	292	30 30	47	74
REJ 024: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Standard Board Accessories: (Single GTEC Resilient Bar at max. 450mm centres recommended) Insulation: – Structure: min. 240mm engineered timber I-joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	27	277 (294)	30 -	40	83
REJ 026: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC E Board Accessories: (Single GTEC Resilient Bar at max. 450mm centres recommended) Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: min. 240mm engineered timber I-joists at 400mm centres Flooring Make-up: 22mm tongue and grooved chipboard	31	275 (292)	30 30	40	80
REJ 027: Direct-	to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Standard Board Accessories: (Single GTEC Resilient Bar at max. 450mm centres recommended) Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: min. 240mm engineered timber I-joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	31	277 (294)	30	43	74
REJ 028: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board Accessories: (Single GTEC Resilient Bar at max. 450mm centres recommended) Insulation: – Structure: min. 240mm engineered timber I-joists at 450mm centres Flooring Make-up: 22mm tongue and grooved chipboard	30	277 (294)	30 30	41	80

See p137 for notes on alterations to floors and ceilings configuration.

GTEC CEILING SYSTEMS TO TIMBER FLOORS

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R, dB (C, where	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	(mins)	applicable)	(L _{nw} dB)
RTC 052: Direct	·to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Standard Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 400mm centres without noggings Flooring Make-up: 18mm tongue and grooved chipboard	37	233	30 30	38	77
RTC 012: Direct-	to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 400mm centres without noggings Flooring Make-up: 22mm tongue and grooved chipboard	35	235	30 -	38	78
RTC 065: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: – Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 400mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	38	235	30 -	40	79
RTC 061: Direct	·to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Standard Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: – Structure: 47mm x 200mm joists at 450mm centres Flooring Make-up: 22mm tongue and grooved chipboard	43	254	30 30	40	76
RTC 017: Direct-	to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	38	252	30 30	52	69

GTEC CEILING SYSTEMS TO TIMBER FLOORS continued

Sustan Dat	Compagaget	System Weight (kg/m²)	Minimum Thickness (mm)	Fire Perf. BS476-21 BS EN 1365-2 (mins)	Acoustic Perf. R, dB (C _{tr} where applicable)	Impact Sound Insulation (L _{nw} dB)
RTC 003: Direct	to-Timber – see p162					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Standard Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	48	247	30 30	40	78
RTC 004: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Standard Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: – Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 600mm centres Flooring Make-up: 22mm tongue and grooved chipboard	48	247	30 30	42	75
RTC 028: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Accessories: – Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 600mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	38	235	30 30	44	75
RTC 037: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 600mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	34	235	30 30	41	77
RTC 018: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board (Fixed with 63mm GTEC High Thread screws) Accessories: – Insulation: – Structure: 47mm x 200mm joists at 600mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	37	237	60 60	41	76

See p137 for notes on alterations to floors and ceilings configuration.

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R dB (C, where	Impact Sound Insulation
System Ref.	Component	(Kg/m²)	(mm)	(mins)	аррисаріе)	(L ^{nw} 0B)
RTC 016: Direct	-to-Timber – see p162 Ceiling Inner Layer(s): 1x 15mm GTEC Standard Board Ceiling Outer Layer(s): 1x 15mm GTEC Standard Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 600mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	50	252	60 30	43	72
RTC 014: Direct	-to-Timber – see p162 Ceiling Inner Layer(s): 1x 12.5mm GTEC E Board Ceiling Outer Layer(s): 1x 12.5mm GTEC E Board Accessories: – Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 450mm centres without noggings Flooring Make-up: 22mm tongue and grooved chipboard	52	247	30 30	44	75
RTC 029: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): Existing Lath & Plaster with Chicken Wire & Battens at 400mm centres Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: – Insulation: – Structure: 47mm x 200mm joists at 450mm centres without noggings Flooring Make-up: 22mm tongue and grooved chipboard	54	_	30 30	47	71
RTC 020: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): Existing Lath & Plaster with Chicken Wire & Battens at 400mm centres Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board (Fixed with 63mm GTEC High Thread screws) Accessories: – Insulation: – Structure: 47mm x 200mm joists at 450mm centres without noggings Flooring Make-up: 22mm tongue and grooved chipboard	55	-	60 60	48	70

GTEC CEILING SYSTEMS TO TIMBER FLOORS continued

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R, dB (C, where	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	(mins)	applicable)	(L _{nw} dB)
RTC 051: Direct-	to-Timber – see p162					
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 450mm centres without noggings Flooring Make-up: 22mm tongue and grooved chipboard	55	269	60 60	55	62
RTC 023: Direct	-to-Timber – see p162					
	Ceiling Inner Layer(s): 1x 15mm GTEC Fire Board (Fixed with 50mm GTEC High Thread screws) Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board (Fixed with 75mm GTEC High Thread screws) Accessories: – Insulation: – Structure: 47mm x 200mm joists at 600mm centres with noggings Flooring Make-up: 22mm tongue and grooved chipboard	50	252	120 90	45	70

GTEC DRYLINER CEILING SYSTEMS TO CONCRETE SOFFIT System Minimum Fire Part Acquetia Impact

		Weight	(mm)	BS476-21 BS EN 1365-2 (mios)	Acoustic Perf. R, dB (C _{tr} where	Impact Sound Insulation
System Ref.	Component	(kg/iii)	(mm)	(111113)	арріїсаоїе)	(L _{nw} 0D)
RDC 016: Drylin	er – see p154					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: GTEC Dryliner Channel RD1 at 450mm max. centres Insulation: – Structure: Any Concrete Soffit Flooring Make-up: –	11	-	-	-	-
RDC 017: Drylin	er – see p154					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Standard Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Accessories: GTEC Dryliner Channel RD1 at 450mm max. centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: Any Concrete Soffit Flooring Make-up: –	22	_	30 -	_	-
RDC 018: Drylin	er – see p154					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Accessories: GTEC Dryliner Channel RD1 at 450mm max. centres Insulation: 50mm 24kg/m ³ glass mineral wool Structure: Any Concrete Soffit Flooring Make-up: –	13	-	30 -	_	-
RDC 019: Drylin	er – see p154					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Fire Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Accessories: GTEC Dryliner Channel RD1 at 450mm max. centres Insulation: 50mm 24kg/m ³ glass mineral wool Structure: Any Concrete Soffit Flooring Make-up: –	23	_	60	_	-

GTEC SEPARATING FLOOR SYSTEMS

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R, dB (C _t where	Impact Sound Insulation
System Ref.	Component	(Ky/111 ⁻)	(11111)	(111115)	аррпсаоте)	(L _{nw} UB)
RTC 025						
	Ceiling Inner Layer(s): 1x 19mm GTEC Plank Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 600mm centres Flooring Make-up: 18mm tongue and grooved chipboard (from external layer) on 19mm GTEC Plank on 30mm 150kg/m ³ rock mineral wool on 12mm plywood or OSB	70	323	60 60	61, -11	54
RTC 049						
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Frame: GTEC MF Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 400mm centres Flooring Make-up: 18mm tongue and grooved chipboard (from external layer) on 19mm GTEC Plank on 30mm 150kg/m ³ rock mineral wool on 12mm plywood or OSB	71	_	60 60	60, -9	55
RTC 050						
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 400mm centres Flooring Make-up: 18mm tongue and grooved chipboard (from external layer) Spot bonded on GTEC 15mm dB Board on 30mm 150kg/m ³ rock mineral wool on 12mm plywood or OSB	71	317	60 60	60, -9	55

See p137 for notes on alterations to floors and ceilings configuration.

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R dB	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	(mins)	applicable)	(L _{nw} dB)
E-FT-1: Robust D	Detail					
	Ceiling Inner Layer(s): 1x 15mm GTEC Fire Board Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10-33kg/m ³ glass mineral wool Structure: min. 240mm engineered timber I-joists Flooring Make-up: 18mm tongue and grooved chipboard (from external layer) Resilient Timber battens 13mm 33-36kg/m ³ Rock mineral wool between battens on 15mm plywood or OSB	72	-	60 60	Robust Detail Solution	Robust Detail Solution
RSF 002						
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 23kg/m ³ glass mineral wool Structure: 150mm Structural Steel Joists at 400mm centres Flooring Make-up: 18mm tongue and grooved chipboard (from external layer) Spot bonded on GTEC 15mm dB Board on 30mm 120kg/m ³ Rock Slab Insulation on 11mm OSB Sterling T&G Board	44	271	60 60	65, -12	53
RSF 003						
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10kg/m ³ glass mineral wool Structure: 150mm Structural Steel Joists at 400mm centres Flooring Make-up: 40mm Gyvlon Screed on 6mm Ethafoam (from external layer) on 20mm OSB Sterling Board	112	313	60 60	61, -7	57
RCC 015 Modifi	ed: Refurbishment as Approved Doc. E	4-3				
	Ceiling Inner Layer(s): 1x 12.5mm GTEC dB Board Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Frame: GTEC MF Ceiling Channels at Max 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Existing Ceiling: Existing Lath & Plaster Ceiling plus 15mm GTEC Fire Board Flooring Make-up: 18mm tongue and grooved chipboard	80	_	60 60	-	-

GTEC SEPARATING FLOOR SYSTEMS continued

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN 1365-2	Acoustic Perf. R _w dB (C _{r.} where	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	(mins)	applicable)	(L _{nw} dB)
E-FC-1						
	Applicable Ceilings: (CT1) Metal ceiling system: GTEC MF Ceiling system providing 100mm (min) ceiling void with one layer 12.5mm GTEC Standard Board (CT2) Timber battens and counter battens: 50mm x 50mm softwood battens with 50mm x 50mm counter battens below and one layer 12.5mm GTEC Standard Board (CT3) Metal ceiling system (shown): GTEC Dryliner SR or MF ceiling system providing 75mm (min) ceiling void with one layer 10+kg/m ² GTEC Board (CT4) Timber battens and resilient bar: 50mm x 50mm softwood with GTEC resilient bar RBD3000 mounted at 90° to softwood battens at 450mm c/c (max) and one layer 12.5mm GTEC E Board Floating floor: 18mm tongue and groove floorboards on resilient composite timber battens type FFT1 Screed: 40mm sand/cement or similar, minimum 80kg/m ²			-	Robust Detail Solution	Robust Detail Solution
E-FC-2						
	Applicable Ceilings: Metal ceiling system (shown): GTEC Dryliner SR or MF ceiling system providing 75mm (min) ceiling void with one layer 10+kg/m ² GTEC Board Timber ceiling system Any ceiling system providing 75mm void with one layer 12.5mm GTEC E Board Floating floor: 18mm tongue and groove floorboards on 25mm mineral wool batt insulation density 150kg/m ³ type FFT4 Structural floor: 250mm minimum in-situ concrete slab, minimum 2400kg/m ³ without screed	-	-	-	Robust Detail Solution	Robust Detail Solution

GTEC PREGYBEL MF CEILING SYSTEMS

System Ref.	Component	System Weight (kg/m²)	Acoustic Absorption Class, BS EN ISO 11654	Absorption co-efficient (α_w), BS EN ISO 11654
PGC 001: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 75mm glass mineral wool and 600mm void Structure: Any suitable soffit	12	В	0.80
PGC 002: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 50mm glass mineral wool and 600mm void Structure: Any suitable soffit	12	С	0.75
PGC 003: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 50mm glass mineral wool and 300mm void Structure: Any suitable soffit	12	С	0.70
PGC 004: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 300mm void Structure: Any suitable soffit	12	С	0.60
PGC 101: Pregyt	pel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R12no2 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 50mm glass mineral wool and 300mm void Structure: Any suitable soffit	12	С	0.7
PGC 102: Pregyl	oel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R12no2 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 300mm void Structure: Any suitable soffit	12	С	0.65

REFERENCE

GTEC PREGYBEL MF CEILING SYSTEMS continued

		System Weight (kg/m ²)	Acoustic Absorption Class, BS EN ISO 11654	Absorption co-efficient (Cu,), BS EN ISO 11654
System Ref.	Component			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R15no1 Frame: GTEC MF Ceiling Channels at Max 600mm centres	12	С	0.70
<u></u>	Insulation: 50mm glass mineral wool and 600mm void Structure: Any suitable soffit			
PGC 202: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R15no1 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 30mm glass mineral wool and 50mm void Structure: Any suitable soffit	12	С	0.7
PGC 301: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R15no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 50mm glass mineral wool and 300mm void Structure: Any suitable soffit	12	С	0.60
PGC 302: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel R15no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 300mm void Structure: Any suitable soffit	12	D	0.50
PGC 401: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel L5x80no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 80mm glass mineral wool and 300mm void Structure: Any suitable soffit	12	D	0.55
PGC 402: Pregy	bel MF – see p148			
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x GTEC Pregybel L5x80no8 Frame: GTEC MF Ceiling Channels at Max 600mm centres Accessories: GTEC Frame should be screw fixed Insulation: 80mm glass mineral wool and 100mm void Structure: Any suitable soffit	12	D	0.55

See p137 for notes on alterations to floors and ceilings configuration.

GTEC SUSPENDED MF CEILING SYSTEMS TO TIMBER FLOORS

System Def	Component	System Weight (kg/m²)	Minimum Thickness (mm)	Fire Perf. BS476-21 BS EN 1365-2 (mins)	Acoustic Perf. $R_w dB$ $(C_{tr} if$ applicable)	Impact Sound Insulation (L _{nw} dB)
RCC 011: Susper	nded MF – see p138					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC E Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Connecting Clips Insulation: – Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	33	n/a	30 30	43	72
RCC 042: Suspe	nded MF – see p138					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Standard Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	40	n/a	60 30	44	72
RCC 012: Suspe	nded MF – see p138					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC E Board Ceiling Outer Layer(s): 1x 12.5mm GTEC E Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	42	n/a	60 30	46	69

PARTITIONS

GTEC SUSPENDED MF CEILING SYSTEMS TO TIMBER FLOORS continued

		System Weight	Minimum Thickness	Fire Perf. BS476-21 BS EN	Acoustic Perf. R _w dB	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mm)	1365-2 (mins)	(C _{tr} if applicable)	(L _{nw} dB)
RCC 013: Suspe	nded MF – see p138					
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Connecting Clips Insulation: – Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	34	n/a	60 30	44	70
RCC 014: Suspe	nded MF – see p138					
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Fire Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	45	n/a	90 30	54	62
RCC 015: Suspe	nded MF – see p138					
	Ceiling Inner Layer(s): 1x 15mm GTEC Fire Board Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm Joists at 600mm centres Floor: Min. 18mm tongue and grooved boarding or similar	50	n/a	120 30	56	60

GTEC SUSPENDED MF CEILING SYSTEMS TO PROTECT STRUCTURE

		System Weight	Fire Perf. BS476-21 BS476-22	Fire Perf. BS476-23	Fire Perf. BS EN 1364-2 BS EN	Acoustic Perf. R _w dB (C _{tr} if	Impact Sound Insulation
System Ref.	Component	(kg/m²)	(mins)	(mins)	1365-2 (mins)	applicable)	(L _{nw} dB)
RCC 016: Suspe	nded MF – see p138						
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Connecting Clips Insulation: – Structure: Any suitable soffit	11	-	_	-	_	-
RCC 017: Suspen	nded MF – see p138						
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Standard Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Standard Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: Any suitable soffit	22	-	30	30 -	_	-
RCC 018: Suspe	nded MF – see p138						
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Connecting Clips Insulation: 50mm 24kg/m ³ glass mineral wool Structure: Any suitable soffit	13	-	30	30	_	-
RCC 019: Suspe	nded MF – see p138						
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Fire Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Frame: GTEC Ceiling Channels at max. 450mm centres Accessories: GTEC Frame should be screw fixed Insulation: 50mm 10.5kg/m ³ glass mineral wool Structure: Any suitable soffit	26		60	30 -	_	-

PARTITIONS

GTEC MASS BARRIER CEILINGS

		System Weight (kg/m ²)	Fire Perf. BS476-21 BS476-22 (mins)	Fire Perf. BS476-23 (mins)	Fire Perf. BS EN 1364-2 BS EN 1365-2	Acoustic Perf. $\mathbf{R}_{w} d\mathbf{B}$ $(C_{tr} if$ applicable)	Impact Sound Insulation (L _{nw} dB)
System Ref.	Component				(mins)		
RCC 060: Suspe	ended MF – see p138						
	Ceiling Inner Layer(s): 1x 12.5mm GTEC dB Board Ceiling Outer Layer(s): 1x 12.5mm GTEC dB Board Frame: GTEC Ceiling Channels at max. 450mm centres Heavy Duty Primary channels UT52/Y at 900mm Centres Accessories: Phonissimo Acoustic Hangers as 1200mm Centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: Any suitable soffit	30	Ξ	60	30 -	_	-
RCC 061: Suspe	nded MF – see p138						
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 2x 15mm GTEC dB Board Frame: GTEC Ceiling Channels at max. 450mm centres Heavy Duty Primary channels UT52/Y at 900mm Centres Accessories: Phonistar Acoustic Hangers as 1200mm Centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: Any suitable soffit	50	-	90	90 -	-	-

GTEC ACOUSTIC FLOOR SYSTEMS

System Ref.	Component	System Weight (kg/m²)	Fire Perf. BS476-21 BS EN 1365-2 (mins)	Acoustic Perf. $R_w dB$ $(C_{tr} where applicable)$	Impact Sound Insulation (L _{nw} dB)
RAF 050: Acous	tic Floor – see p170				
	Ceiling Inner Layer(s): 1x 15mm GTEC dB Board Ceiling Outer Layer(s): 1x 15mm GTEC dB Board Accessories: Single GTEC Resilient Bar at max. 450mm centres Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 450mm centres Floor Inner Layer(s): 1x 15mm GTEC dB Board on GTEC Acoustic Floor Clips Floor Outer Layer(s): 22mm tongue and grooved chipboard	60	60 60	63, -10	54
RAF 006: Acous	tic Floor – see p170				
	Ceiling Inner Layer(s): 15mm GTEC Fire Board to joists and bridged over insulation Ceiling Outer Layer(s): Existing lath and plaster decorative ceiling Accessories: – Insulation: 100mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 200mm joists at 450mm centres Floor Inner Layer(s): 1x 19mm GTEC Plank on GTEC Acoustic Floor Clips Floor Outer Layer(s): 22mm tongue and grooved chipboard	60	60 60	53	65

FLOORS AND CEILINGS PERFORMANCE NOTES

- Performance values are for imperforate, jointed systems using Siniat GTEC components (metal studs and tracks, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type, thickness and density) and installed to Siniat specification and installation guides.
- Any alterations may impair the quoted performance. Contact Technical Services for further system configurations and their resulting performances.
- Insulation shown may be replaced with thicker and/or heavier quilt material without impairing the quoted performances.
- For maximum framing centres, joist connector and bracket centres and loading see tables within system guidance pages.

GTEC SUSPENDED MF CEILING SYSTEMS

The GTEC Suspended MF Ceilings are used to create 'false ceilings' which house services between the ceiling and soffit. The large voids created also improve acoustic, fire and thermal performance.

GTEC Suspended MF Ceilings are formed from a series of GTEC Primary Channels hung from the soffit. Attached to these channels are GTEC Ceiling Channels, slotted into GTEC Edge Channel to form the frame. GTEC Board is fixed to the MF frame to complete the system. Refer to the System Performance Tables on pages 133 to 136 for full details.

WHERE TO USE:

- GTEC Suspended MF Ceilings are used for commercial applications where services are required below the soffit.
- For ceilings with enhanced fire and acoustic performance in commercial and residential applications.

FEATURES	BENEFITS
Variable cavity depth	Optimisable cavity size for service and insulation requirements
High acoustic, fire and thermal capabilities	Required performance levels are easily achieved
Creates a 'false ceiling'	Can be used to upgrade or protect existing structures
Demountable	Easy to renovate
Flat finish	Provides a smooth surface for decorating



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p133-136
FRAME		
Ad	GTEC Ceiling Channel Steel channel to support boards	MFCC50
	GTEC Primary Channel Steel channel to support GTEC Ceiling Channel	MFCP44
	GTEC Heavy Gauge Primary Channel Heavy duty steel channel to support GTEC Ceiling Channel	UT52/Y
	GTEC Edge Channel Steel channel used to form perimeter board support	MFCE26
	GTEC Metal Angle Multi-purpose metal section as suspension hanger	MFC2330, MFC2525, MFC2550
W	GTEC Connecting Clip Steel clip for joining GTEC Ceiling Channel to GTEC Primary Channel	MFCCLIP
	GTEC Soffit Cleat Steel bracket to fix suspension hangers to substrate	MFCCLEAT
۲	GTEC Phonistar Acoustic Hanger A heavy duty (up to 120kg) acoustic suspended ceiling hanger bracket	PHONI
C	GTEC Phonissimo Acoustic Hanger A medium duty (up to 50kg) acoustic suspended ceiling hanger bracket	PHONIMO
Service -	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048
INSULATION		
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance tables supplied by others
FIX		
8	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334
FINISHING		
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
direct and the second	GTEC Sealers To seal plasterboard prior to decoration	n/a

SYSTEM GUIDANCE

FRAME

FC-MF-101S-Ceiling perimeter



FC-MF-102M & 103M-Ceiling channel splicing



- GTEC Edge Channel to be fixed to structure at perimeter of ceiling run and around any obtrusions within the ceiling, e.g. columns. Fix at 600mm centres using appropriate fixings. Allow for board depth when positioning channel.
- GTEC Metal Angle suspension hangers at maximum 1200mm centres along Primary Channel to be fixed to structural soffit using GTEC Soffit Cleats and appropriate structural fixings by others.
- Hangers to be at maximum of 900mm from ceiling perimeter.

GTEC Primary Channels to be arranged at maximum centres (see table) according to expected loadings including system and board weight (as indicated in performance tables). Channels to be fixed to hangers using appropriate GTEC Drywall Screws.

Max. primary channel centres	Maximum loading including system and board weight
600mm	74kg/m²
900mm	50kg/m²
1200mm	35kg/m²

A

FRAME continued

- GTEC Ceiling Channels at maximum 450mm centres to be located into GTEC Edge Channel and fixed at right angles to GTEC Primary Channel.
- Fixing between Ceiling and Primary channels to be made using appropriate GTEC Drywall Screws.
- GTEC Connecting Clips may only be used to connect GTEC Ceiling Channel to Primary Channel in single board layer systems with no additional loadings. GTEC Connecting Clips to be alternated in direction to counteract any movement.

INSULATION

Any insulation to be of type and thickness to achieve performance and installed in a continuous layer between primary channels and over ceiling channels and boards.

- GTEC Primary Channels may be spliced if necessary by fixing back-to-back with minimum four appropriate GTEC Drywall Screws.
- GTEC Ceiling Channels may be jointed by overlapping profiles by minimum 150mm and fixing with minimum four appropriate GTEC Drywall Screws.
BOARDING

FC-MF-201M & 202M Board Layout



- GTEC Suspended MF Ceiling system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Performance Tables (p133-136) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide p12 for further selection information.
- Boards to span across GTEC Ceiling Channels. Joints between boards must occur at centre of channels.
- Board ends and joints to be centred over channels.

- Boards to be mechanically fixed to GTEC Edge Channel at 150mm centres using appropriate GTEC Drywall Screws. See screw selector p334.
- Boards to be mechanically fixed to GTEC Ceiling Channels at 230mm centres in centre of board or at bound edges and at 150mm centres at cut edges, using appropriate GTEC Drywall Screws. See screw selector p334.
- Board joints to be staggered between layers.
- Any GTEC Fire Board, or other GTEC Type F (BS EN 520) board, required by the system performance, to be installed as the outermost/finishing layer.

A

MOVEMENT CONTROL JOINTS

FC-MF-301S-Movement joint - parallel to c. channels



- Form movement control joints at maximum 10m intervals in any direction in ceiling run.
- Form movement control joints where ceiling crosses a structural movement joint.



- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.
- Follow measures to ensure fire resistance and stability as shown in Construction Details.

OPENINGS

FC-MF-401M-Opening in ceiling



 Frames around openings and large penetrations in ceiling to be formed from GTEC Edge Channel with additional GTEC
Primary Channel to support opening frame and GTEC Ceiling Channels.

HEIGHT CHANGE & JUNCTIONS

FC-MF-501S-Junction of partition to ceiling



FC-MF-503S-Change in ceiling height



- Abutting partitions to coincide with and fix to GTEC Ceiling Channel, install additional intermediate 'pick-up' channels if required.
- Separate boards at partition head to reduce sound transmission.





FC-MF-504S-Bulkhead



- Where ceiling abuts partition fix GTEC Edge Channel through to stud.
- Form 90° junction in ceiling by fixing GTEC Edge Channels at right angle with GTEC Ceiling Channel spanning vertically as required. Hangers to be positioned at maximum 150mm from change in height.

A

FIXTURES

- Where possible fixtures and loadings to be suspended from structural soffit and not GTEC Suspended MF Ceiling system.
- Loads suspended from ceiling to be fixed to frame not boards. Framing centres to suit total load, see guidance on centres in 'Frame' guidance section, and appropriate fixings selected to suit full loadings.
- Services running through ceiling void to be supported by structural soffit and not GTEC Suspended MF Ceiling System.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire and sound resisting material.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances. Where a ceiling is not intended to be decorated GTEC Intumescent Sealant to be used to seal board joints.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.

FIRE PROTECTION

ACOUSTIC MASS BARRIER CEILINGS

FC-MF-002S-Phonissimo Acoustic Hanger – general arrangement FC-MF-003M-Phonissimo Acoustic Hanger – assembly



FC-MF-004S-Phonistar Resilient Hanger – general arrangement





FC-MF-005M-Phonistar Resilient Hanger – assembly



- For Acoustic Mass Barrier system configurations suspend frame from GTEC Phonistar or GTEC Phonissimo hangers at maximum 1200mm centres using M6 threaded rod.
- GTEC Phonissimo and GTEC Phonistar hangers are acoustically dampened, high strength hangers to support higher mass ceilings which offer the highest acoustic insulation.
- GTEC Heavy Gauge Primary Channel UT52/Y to be used instead of GTEC Primary Channel.

GTEC PREGYBEL MF CEILING SYSTEMS

The GTEC Pregybel MF Ceiling system is used for creating sound absorbing ceilings to control sound reflection in larger spaces, creating a more comfortable level of sound and improved audibility.

GTEC Pregybel MF Ceilings combine the easy to install advantages of the GTEC Suspended MF Ceiling with the sound absorption capability of GTEC Pregybel Board. Using frame components from the GTEC Suspended MF system enables flexible design and specification. GTEC Pregybel board is perforated in a range of patterns for attractive designs and reduction in the reflective surface of the board to limit echo or reverberation. Refer to the System Performance Tables on pages 131 to 132 for full performance details.

WHERE TO USE:

- GTEC Pregybel MF ceilings are used in commercial applications where large, hard-surfaced and uninterrupted spaces would otherwise suffer from echoing.
- GTEC Pregybel MF ceilings are also required for corridors and stairwells in residential blocks to reduce sound travel through the building.

FEATURES	BENEFITS	
Variable cavity depth	Cavity size can be optimised for service and insulation requirements	
	Up to Class B acoustic absorption	
Utilises GTEC Suspended MF framing	One set of components on site	
	Easy to install	
Creates a 'false ceiling'	Can be used to upgrade existing structures	
Perforated boards in a range of patterns	Provides a range of aesthetic options to add variation in large spaces	

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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p131-132
FRAME		
A	GTEC Ceiling Channel Steel channel to support boards.	MFCC50
	GTEC Primary Channel Steel channel to support GTEC Ceiling Channel	MFCP44
	GTEC Edge Channel Steel channel used to form perimeter board support	MFCE26
	GTEC Metal Angle Multi-purpose metal section as suspension hanger	MFC2330, MFC2525, MFC2550
W	GTEC Connecting Clip Steel clip for joining GTEC Ceiling Channel to GTEC Primary Channel	MFCCLIP
	GTEC Soffit Cleat Galvanised steel bracket to fix suspension hangers to substrate	MFCCLEAT
0	GTEC Strap Hanger Suspension hanger for depths up to 1m	MFSTRAP
CONTRACTOR OF	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048
INSULATION		
	Mineral wool insulation Increases acoustic absorption	See performance tables supplied by others
FIX		
v//	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334
FINISHING		
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to prevent dust accumulation	n/a
A Orac ()	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
erer Synaal Seder	GTEC Sealers To seal plasterboard prior to decoration	n/a

SYSTEM GUIDANCE

See guidance in GTEC Suspended MF section and additional considerations given below:

FRAME

FC-PG-101S-Pregybel Secondary Ceiling



 GTEC Connecting Clips may be used to connect GTEC Ceiling Channel to Edge Channel in all single layer GTEC Pregybel MF systems providing no additional loads are being carried. GTEC Ceiling Channel to be at maximum 600mm centres to coincide with unperforated areas of board.

INSULATION

Any insulation to be of type and thickness to achieve performance and installed in a continuous layer between primary channels and over ceiling channels and boards.

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BOARDING

FC-PG-201E-Pregybel board designs



152

Max Max. GTEC Metal Angle 150mm 150mm GTEC Primary Channel GTEC Edge Channel GTEC Ceiling Channel Max. 600mm screw fixed at 400mm centres GTEC Edge Channel fix channels together GTEC Corner 90° External / GTEC Flex Tape SECTION

FC-PG-501S-Pregybel Ceiling Height Change

FC-PG-002S-Pregybel Standalone Bulkhead



PENETRATIONS

- M&E runs and other penetrating services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire and sound resisting material.

SYSTEM CONTINUITY

- Only areas with full system continuity will achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings to prevent dust accumulation.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Pregybel Board, once sealed, to be painted with rollers to prevent paint blocking tissue backing and reducing absorption capacity.
- GTEC Finish materials appropriate to board type to be used.
- GTEC Pregybel MF Ceiling system is suitable for single layer boarding.
- Select GTEC Pregybel Board according to acoustic performance required and desired perforation pattern.
- GTEC Pregybel boards to be arranged to achieve desired board pattern. GTEC Pregybel Boards and GTEC Boards may be mixed for decorative effect however acoustic absorption only occurs where board, void and insulation match the system performance.
- Boards to span across GTEC Ceiling Channels.

GTEC DRYLINER CEILING SYSTEMS

The GTEC Dryliner Ceiling system is a simple, quick and cost-effective method for constructing a true, flat ceiling, even when connecting to uneven joists or concrete soffits. It also creates a small cavity to accommodate services.

GTEC Dryliner ceilings are made from GTEC Dryliner Brackets fixed to the soffit or joists, with GTEC Dryliner Channels secured to them. The channels provide a strong, level substrate for fixing the plasterboard. GTEC Dryliner Brackets are available for a range of cavity depths up to 130mm.

Fire rating and acoustic performance can be enhanced by the selection of appropriate GTEC Boards. Refer to the System Performance Tables on page 127 for full details.

WHERE TO USE:

 GTEC Dryliner Ceilings are used for both domestic and commercial applications for either new build or renovation projects.

FEATURES	BENEFITS
Improved fire protection for timber joists	Cost effective solution for achieving required performance
Creates a cavity	Accommodates services without the need to drill joists
Adjustable brackets	Creates a flat surface even with uneven joists or soffit
Separation from soffit	Provides improved acoustic performance
No direct connection between board and joists	Reduces risk of plasterboard cracking from movement of wooden joists



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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p127
FRAME		
	GTEC Dryliner Channel A galvanised steel furring channel for plasterboard fixing	RD1
	GTEC Dryliner Channel Connector A galvanised clip used to join sections of GTEC Dryliner Channel	RD3
L	GTEC SR bracket Adjustable bracket to connect GTEC Dryliner Channel to substrate	RD2
U	GTEC XR bracket Adjustable, extended reach bracket to connect GTEC Dryliner Channel to substrate	RD11
	GTEC Dryliner Track J shaped metal section used as a track and perimeter channel	RD9
	GTEC Metal Angle Multi-purpose metal section as suspension hanger	MFC2330, MFC2525, MFC2550
A REAL PROPERTY	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048
INSULATION		
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance tables supplied by others
FIX		
~~/	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334
FINISHING		
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
BYTHE STATE	GTEC Compounds To finish joints between boards prior to decorating. Ensures system performance	See compounds guidance, p280
erer Synan Sector	GTEC Sealers To seal plasterboard prior to decoration	n/a

SYSTEM GUIDANCE

FC-DC-101E-Dryliner cavity sizes



- GTEC Dryliner Channel to be positioned at maximum 450mm centres. GTEC Dryliner Brackets to be positioned at maximum 600mm centres for double layer boarding and at maximum 900mm centres for single layer boarding.
- GTEC Dryliner Brackets to be fixed to soffit/joists in line to receive GTEC Dryliner Channel: GTEC SR and XR Brackets to be fixed using appropriate structural fixings by others.





- GTEC Dryliner Track to be fixed to structure at perimeter of ceiling run and around any obtrusions within the ceiling, e.g. columns.
 Fix at 600mm centres using appropriate fixings by others. Allow for board depth when positioning channel.
- Select GTEC Dryliner Brackets (SR and XR) to suit cavity depth required:

GTEC Dryliner Bracket	Cavity Depth Range
GTEC SR Bracket	25mm-60mm
GTEC XR Bracket	25mm-130mm

- GTEC Dryliner Channel to be 5mm shorter than ceiling length/width, located into GTEC Dryliner Track, attached to both GTEC Dryliner Bracket legs with appropriate GTEC Drywall Screws (see screw selector p334) and levelled by adjusting brackets. Excess bracket leg length to be removed or bent back.
- GTEC Dryliner Channel may be spliced if necessary using GTEC Dryliner Channel Connector. Any jointed sections to be fixed to soffit/joist with additional brackets where required.

REFERENCE

INSULATION

Any insulation to be of type and thickness to achieve performance and tightly installed in a continuous layer between brackets and over channels.

BOARDING

FC-DC-201P & 202P-Single boarding and double layer boarding



- GTEC Dryliner Ceiling system is suitable for single and double layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System
 Performance Tables (p133-136) and Product
 Specification (p294-307) to achieve required
 performance. See High Performance Boards
 guide p12 for further selection information.
- Boards to span across GTEC Dryliner Channels with bound edges at right angles to channels.
- Board ends and joints to be centred over channels.

- Boards to be mechanically fixed to GTEC Dryliner Track at 150mm centres using appropriate GTEC Drywall Screws. See screw selector p334.
- Boards to be mechanically fixed to GTEC Dryliner Channels at 230mm centres in field of board or at bound edges and at 150mm centres at cut edges, using appropriate GTEC Drywall Screws. See screw selector p334.
- Board joints to be staggered between layers.
- Any GTEC Fire Board, or other GTEC Type F (BS EN 520) board, required by the system performance, to be installed as the outermost/finishing layer.

MOVEMENT CONTROL JOINTS

FC-DC-301S-Movement joint

Max. Max. 50mm 50mm 0. po-٥Ô 0,0 50 0:A GTEC Movement 50mm Rock Mineral wool Control Joint insulation 40kg/m³ (if fire rated system) 10mm SECTION

- Form movement control joints at maximum 10m intervals in any direction in ceiling run.
- Form movement control joints where ceiling crosses a structural movement joint.
- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.
- Follow measures to ensure fire resistance and stability as shown in Construction Details.

REFERENCE

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HEIGHT CHANGE & JUNCTIONS

FC-DC-501S-Junction of partition to ceiling



FC-DC-503S-Bulkhead



- Abutting partitions to coincide with and fix to GTEC Dryliner Channel, install additional intermediate 'pick-up' channels with brackets where required.
- Where ceiling abuts partition fix GTEC Dryliner Track through to stud and install GTEC Dryliner Channels with brackets within 150mm of partition.



FC-DC-504S-Change in ceiling height



Form 90° junction in ceiling with GTEC Dryliner Track as corner reinforcement or position GTEC Dryliner brackets to receive edge board along legs.

FC-DC-502S-Junction of ceiling to partition

FIXTURES

- Fixtures and loadings to be suspended from structural soffit/joist and not GTEC Dryliner Ceiling system.
- Any services or installations in ceiling void to be supported by structural soffit/joist and not GTEC Dryliner Ceiling System.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire and sound resisting material.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances. Where ceiling is not intended to be decorated GTEC Intumescent Acoustic Sealant to be used to seal board joints.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- GTEC Dryliner Ceiling system may be used to upgrade existing, retained ceilings provided all fixing is into structural soffit/joists and any combustible material is removed from retained ceiling or evaluated as inert.

PARTITIONS

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GTEC DIRECT-TO-TIMBER CEILING SYSTEMS

The GTEC Direct-to-Timber Ceiling system is the simplest method of creating a flat ceiling surface for decoration and achieving excellent fire performance.

GTEC Plasterboard is attached directly to the underside of floor joists or to the bottom chords of roof trusses with insulation between rafter to boost acoustic and fire performance. Refer to the System Performance Tables on pages 122 to 126 for full details.

WHERE TO USE:

 The GTEC Direct to Timber system is used in both renovation and new-build domestic applications.

FEATURES	BENEFITS
Only requires board and screws	Reduces installation time and costs
Compatible with GTEC Board options	Achieves required fire performance
Flat finish	Provides easy to decorate surface
Can be used with GTEC Resilient Bar	Improves acoustic performance and reliability with some engineered joists



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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
$\langle \rangle \rangle$	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p122-126
FRAME		
	Timber frame Structural frame forming part of an external or internal wall	Supplied by others
	GTEC Resilient Bar Metal profile to provide acoustic separation of board and joists	RBD3000
FIX		
Banna	GTEC High Thread Screws (as appropriate) For attaching plasterboard to timber	See screw selector, p334
FINISHING		
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
OTEC S	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
Orean Search	GTEC Sealers To seal plasterboard prior to decoration	n/a

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SYSTEM GUIDANCE

FRAME

FC-DT-101S-Perimeter detail



FC-DT-102M-Timber ceiling with resilient bar



- Joist spacings without noggings to be maximum 450mm for boards up to 15mm and maximum 600mm for 19mm GTEC Plank.
- Joist spacings with noggings to be maximum 600mm for all boards.
- Noggings to be fitted around perimeter of ceiling, around any obtrusions such as columns and between joists to provide board fixing at bound board edges.
- Joists and noggings to have minimum bearing face of 44mm. Trusses to BS 5268-3 may have bearing face of minimum 38mm.
- Inclusion of GTEC Resilient Bar is recommended when fixing boards to engineered joists to mitigate potential for differential movement between substrate and board.

INSULATION

Any insulation to be of type and thickness to achieve performance and tightly installed in a continuous layer between joists.

GTEC Resilient Bar option only:

- GTEC Resilient Bar to be installed across joists at maximum 450mm centres and fixed to each joist with suitable GTEC High Thread Drywall Screws (see screw selector p334).
- GTEC Resilient Bar to be spliced if necessary by overlapping at joists and fixing both sections to joist.
- Pieces of Resilient Bar required to provide fixing of boards at perimeter of ceiling.

BOARDING

FC-DT-201, 202 & 203P-Board Layout - single layer



- GTEC Direct-to-Timber Ceiling system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Performance Tables (p133-p136) and Product Specification (p294-307) to achieve required performance. See High Performance Boards guide p12 for further selection information.
- Boards to span across joists with bound edges at right angles to joists.
- Board ends and joints to be centred over joists or intermediate noggings.
- Boards to be mechanically fixed to perimeter noggings at 150mm centres using appropriate GTEC High Thread Drywall Screws. See screw selector p334.
- Boards to be mechanically fixed to joists or intermediate noggings at 230mm centres in centre of board or bound edges and at 150mm centres at cut edges, using appropriate GTEC High Thread Drywall Screws. See screw selector p334.

- Board joints to be staggered between layers.
- Any GTEC Fire Board, or other GTEC Type F (BS EN 520) board, required by the system performance, to be installed as the outermost/finishing layer.

GTEC Resilient Bar option only:

- GTEC Resilient Bar is suitable for single and double layer boarding.
- Boards to be mechanically fixed to GTEC Resilient Bar only at 150mm centres for cut edges and perimeter and at 230mm centres in centre of board and bound edges, using shortest appropriate GTEC Drywall Screws. See screw selector p334.
- Boards to be fixed to GTEC Resilient Bar only to ensure acoustic performance. Screws must not penetrate through to substrate.

JUNCTIONS

FC-DT-501S-Junction of partition to ceiling



- Abutting partitions to coincide with and fix to joist install additional intermediate 'pick-up' joists/noggings as required.
- Separate boards at partition head to reduce sound transmission.

PARTITIONS

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FIXTURES

- Fixtures and loadings to be suspended from structural soffit/joist and not GTEC Board.
- Services running through ceiling void to be supported by structural soffit/joist and not GTEC Board.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire and sound resisting material.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances. Where ceiling is not intended to be decorated GTEC Intumescent Acoustic Sealant to be used to seal board joints.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.



GTEC ACOUSTIC FLOOR SYSTEMS

Load bearing timber floors separating dwellings or other spaces have limited sound reduction properties. The GTEC Acoustic Floor, 'floating floor' system improves the acoustic performance of these floors with minimal additional depth.

The system is installed in a two stage process. GTEC Acoustic Clips temporarily support GTEC Board mounted on GTEC Metal Angle between the joists, until the final floorboard layers are fixed to the plasterboard. The only contact between the board and structure is through GTEC Resilient Tape. The GTEC Acoustic Floor system also enables fire protection for existing, hard to renovate, decorative ceilings by applying GTEC Fire Board from above. Refer to the System Performance Tables on page 137 for full details.

WHERE TO USE:

 GTEC Acoustic Floors are used for domestic renovation and conversion projects or new build.

FEATURES	BENEFITS
Improved acoustic performance	Meets new build and conversion regulations
Provision of GTEC Fire Board	Cost effective method of achieving required fire rating to existing timber joist flooring
Low profile system design	Minimal addition to floor depth

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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
$\langle \rangle \rangle$	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p137
FRAME		
1	GTEC Acoustic Floor Clip Metal clips for connecting to wooden joists	RAFC25
	GTEC Resilient Tape Self adhesive acoustic isolation tape	RAFT50
	GTEC Metal Angle Metal section to brace joists and acoustic floor	MFC2330 MFC2525 MFC2550
	GTEC Resilient Bar Metal profile to provide acoustic separation of board and joists	RBD3000
FIX		
	GTEC Acoustic Floor Self Tapping Screws For attaching plasterboard to metal angle	See screw selector, p334
FINISHING		
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration	n/a
OTEC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating	See compounds guidance, p280

SYSTEM GUIDANCE

FRAME

FC-AF-101S-Perimeter detail



- GTEC Acoustic Floor Clips to be fixed to joists at 400mm centres each side of joist.
 Perimeter joists to be fitted with clips on open side. Joists to be minimum 38mm thick and structurally sound.
- GTEC Acoustic Floor Clips on opposing sides to be fixed at same point where joist width allows and staggered where joist is too narrow.
- GTEC Resilient Tape to be fitted along top of joist and any full depth noggings, over clips, to isolate floorboards.
- GTEC Acoustic Floor Screws to be used to fix floorboard through plasterboard to GTEC Metal Angle.

INSULATION

Insulation to be of type and thickness to achieve performance and tightly installed in a continuous layer between joists.

- GTEC Metal Angle MFC2330 to be fitted into GTEC Acoustic Floor Clips Joists with short leg into clip. Lengths of metal angle to have minimum number of joints with any joints located at clips.
- Where required by system configuration GTEC Resilient Bar to be installed across underside of joists at maximum 450mm centres and fixed to each joist with suitable GTEC High Thread Drywall Screws (see screw selector p334).
- GTEC Resilient Bar may be spliced by overlapping at joists and fixing both sections to joist.
- Pieces of Resilient Bar required to provide fixing of board at perimeter of ceiling.

BOARDING

FC-AF-201S-Assembly stages – 1 and 2



FC-AF-202S-Retained ceiling



FC-AF-203P-Flooring layout



FC-AF-501S-Acoustic Floor and Twin Frame partition



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BOARDING continued

- Boarding to underside of ceiling to follow guidance in GTEC Direct-to-Timber section p162-169.
- Where required by retained ceiling system configuration 100mm strips of 15mm GTEC Fire Board to be fitted along each side of joists. Further 15mm GTEC Fire Board to be installed to bridge from strip to strip providing a continuous barrier between joists.
- Select GTEC Board as required by system performance cut 4mm shorter than space between joists, to be temporarily secured to GTEC Metal Angle only at approx. 600mm centres.
- Floorboards to be installed across joists and fixed through GTEC Board to GTEC Metal Angle both sides of every joist using appropriate GTEC Acoustic Floor Screws in pattern shown in Construction Detail drawing. Free-floating floor is created when angle is pulled out of clips during fixing of floorboards and GTEC Board to GTEC Metal Angle.
- Floorboards to be in contact with GTEC Resilient Tape only.
- Floorboards to be 3mm clear of perimeter wall and sealed with GTEC Acoustic Intumescent Sealant.
- Softwood floorboards may require gluing to a plywood base to prevent warping.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated ceilings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire and sound resisting material.

SYSTEM CONTINUITY

- Full, imperforate system continuity to be maintained to achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.




LININGS

GTEC Lining systems offer a wide range of plasterboard lining fixing systems to walls and roofs for most typical substrates. Different depths of cavity spaces can be created between the GTEC Board or GTEC Thermal Board lining and underlying wall. These cavities hide services or help to achieve high levels of fire resistance, U-Values and sound insulation.

System Performance Tables

GTEC Lining Systems to New External Walls	180
GTEC Lining Systems to Upgrade Internal Walls	182
GTEC Lining Systems to Thermally Upgrade External Walls	184
GTEC Lining Systems to Framed External Walls	187
GTEC Roof Lining Systems	188
GTEC Pregybel Independent Lining Systems	190
GTEC GTEC Direct Bond Linings	192
GTEC Contour Linings	202
GTEC Shallow Wall Linings	208
GTEC Dryliner Linings	216
GTEC Independent Wall Linings	226
GTEC Pregybel Independent Linings	236

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REFERENCE

GTEC LINING SYSTEMS TO NEW EXTERNAL WALLS

		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN 1364-1	Acoustic Perf. R, dB
System Ref.	Component	(m)	(mm)	(W/m²k)	(mins)	applicable)
RDL 101: Direct	Bond or Shallow Channel – see p192	or p208	3			
	Facing layer (s): 1x 30mm GTEC Thermal K Board Lining: GTEC Universal Bonding Compound to form 10mm cavity or GTEC Shallow Channel Insulation: 25mm expanded polystyrene (BS 5250) within cavity Internal Wall Leaf: 100mm Celcon Solar Blocks External Wall Leaf: 102mm brick with 75mm cavity	-	325	0.30	-	-
RDL 102: Direct	Bond or Shallow Channel – see p192	or p208	3			
	Facing layer (s): 1x 60mm GTEC Thermal K Board Lining: GTEC Universal Bonding Compound to form 10mm cavity or GTEC Shallow Channel Insulation: – Internal Wall Leaf: 100mm Celcon Solar Blocks External Wall Leaf: 100mm brick with 75mm cavity	-	342	0.26	-	-
RDS 103: Dryline	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC Standard Board Lining: GTEC Dryliner Channel System Insulation: 120mm glass fibre (BS 5250) Wall Leaf: 100mm concrete blockwork (2300kg/m ³) Finish: 100mm brick with 75mm cavity	-	-	0.28	-	-
RDS 104: Dryline	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC Standard Board Lining: GTEC Dryliner Channel System Insulation: 120mm glass fibre (BS 5250) Wall Leaf: 215mm concrete blockwork (2300kg/m ³) Finish: Sand Cement Render	-	-	0.30	-	-

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		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN	Acoustic Perf. R., dB
System Ref.	Component	(m)	(mm)	(W/m²k)	1364-1 (mins)	(C _{tr} where applicable)
RDS 108: Drylin	er – see p216					
	Facing Layer(s): 1x 70mm GTEC Thermal K Board Lining: GTEC Dryliner Channel System Insulation: – Wall Leaf: 215mm concrete blockwork (2300kg/m ³) Finish: 12mm sand/cement render	_	_	0.28		-
RDS 109: Drylin	er – see p216					
	Facing Layer(s): 1x 70mm GTEC Thermal K Board Lining: GTEC Dryliner Channel System Insulation: – Wall Leaf: 215mm brickwork Finish: 12mm sand/cement render	_	_	0.27	_	-
RDS 110: Dryline	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC Vapour Board Lining: GTEC Dryliner Channel System Insulation: 120mm glass fibre (BS 5250) Wall Leaf: 215mm brickwork Finish: –	_	-	0.29	-	-

GTEC LINING SYSTEMS TO UPGRADE INTERNAL WALLS

		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN	Acoustic Perf. R _w dB
System Ref.	Component	(m)	(mm)	(W/m²k)	1364-1 (mins)	(C _{tr} where applicable)
RDS 023: Drylin	er – see p216					
	Facing Layer(s): 2x 12.5mm GTEC dB Board Lining: GTEC Dryliner Channel System Insulation: 25mm glass mineral wool 16kg/m ³ Wall Leaf: 102mm brickwork Finish: Sand Cement Render	_	202	-	60 30	65 -7
RDS 024: Drylin	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC dB Board Lining: GTEC Dryliner Channel System Insulation: 25mm glass mineral wool 16kg/m ³ Wall Leaf: 102mm brickwork Finish: Sand Cement Render	_	177	-	30 0	60 -9
RDS 031: Dryline	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC dB Board Lining: GTEC Dryliner Channel System Insulation: – Wall Leaf: 102mm brickwork Finish: None	_	140	-	Ξ	49
RDS 032: Drylin	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC dB Board both sides Lining: GTEC Dryliner Channel System both sides Insulation: 25mm glass mineral wool 16kg/m ³ both sides Wall Leaf: 102mm brickwork Finish: –	-	177	-	30 -	59
RDS 021: Dryline	er – see p216					
A CONTRACTOR OF	Facing Layer(s): 1x 12.5mm GTEC dB Board both sides Lining: GTEC Dryliner Channel System both sides Insulation: 25mm glass mineral wool 16kg/m ³ both sides Wall Leaf: 215mm Solid Dense Block 2300kg/m ³ Finish: –	_	290	-	30 -	62 -17

See p191 for notes on alterations to linings configuration.

REFERENCE

		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN	Acoustic Perf. R., dB
System Ref.	Component	(m)	(mm)	(W/m²k)	1364-1 (mins)	(C _{tr} where applicable)
RDS 022: Drylin	er – see p216					
	Facing Layer(s): 1x 12.5mm GTEC dB Board Both sides Lining: GTEC Dryliner Channel System Both sides Insulation: 25mm glass mineral wool 16kg/m ³ both sides Wall Leaf: 2 x 100mm Solid Dense Block 2300kg/m ³ with cavity Finish: –	_	325	_	30 -	63 -15
RCL 004: Indep	endent Wall – see p226					
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire V Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Lining: GTEC IS50Rx/IS60B/IS70B/IS90B GTEC I Studs at 600mm centres Insulation: 150mm glass fibre (BS 5250) External Wall Leaf: Profiled metal cladding	IS50Rx 2.7 IS60B 3.9 IS70B 4.5 IS90B 5.4	_	0.29 Based on IS70B stud	60 60	_
RCL 005: Indep	endent Wall – see p226					
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire V Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Lining: GTEC IS50Rx/IS60B/IS70B/IS90B GTEC I Studs at 600mm centres Insulation: 140mm glass fibre (BS 5250) External Wall Leaf: 102mm brick or block work	IS50Rx 2.7 IS60B 3.9 IS70B 4.5 IS90B 5.4	_	0.30 Based on IS70B stud	60 60	_
RCL 021: Indepe	endent Wall – see p226					
	Facing Inner Layer(s): 1x 60mm GTEC Thermal K Board Facing Outer Layer(s): 1x 12.5mm GTEC dB Board Lining: GTEC IS50Rx/IS60B/IS70B/IS90B GTEC I Studs at 400mm centres Insulation: 50mm glass fibre (BS5250) External Wall Leaf: 300mm concrete	IS50Rx 2.7 IS60B 3.9 IS70B 4.5 IS90B 5.4	_	0.26 Based on IS50Rx stud	60 60	_
RCL 017: Indepe	endent Wall – see p226					
	Facing Inner Layer(s): 1x 12.5mm GTEC Standard Board Facing Outer Layer(s): 1x 12.5mm GTEC Standard Board Lining: GTEC IS50Rx/IS60B/IS70B/IS90B GTEC I Studs at 600mm centres Insulation: 130mm glass fibre (BS 5250) External Wall Leaf: 102mm brickwork with a λ of 0.752W/mK	IS50Rx 2.7 IS60B 3.9 IS70B 4.5 IS90B 5.4	_	0.30 Based on IS50Rx stud	30 30	_

GTEC LINING SYSTEMS TO THERMALLY UPGRADE EXTERNAL WALLS

		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN	Acoustic Perf. R _w dB
System Ref.	Component	(m)	(mm)	(W/m²k)	1364-1 (mins)	(C _{tr} where applicable)
RdSAP 01: Direc	t Bond or Shallow Channel – see p19	2 or p2	08			
	RdSAP Wall: Solid brick walls to 1966 and cavity walls pre 1900					
	Facing Inner Layer(s): 1x 50mm GTEC Thermal K Board	-	-	0.40		-
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.33		-
	Or: 1x 70mm GTEC Thermal K Board	_	_	0.28		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					
RdSAP 02: Direc	t Bond or Shallow Channel – see p19	92 or p2	08	_		
	RdSAP Wall: Cavity walls 1900-1975					
	Facing Inner Layer(s): 1x 50mm GTEC Thermal K Board	-	-	0.38		-
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.31		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.27		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					
RdSAP 03: Direc	t Bond or Shallow Channel – see p19	92 or p2	08			
	RdSAP Wall: Solid brick walls and cavity walls 1976-1982					
	Facing Inner Layer(s): 1x 40mm GTEC Thermal K Board	-	-	0.40		-
	Or: 1x 50mm GTEC Thermal K Board	-	-	0.33		-
	Or: 1x 60mm GTEC Thermal K Board	-	_	0.28		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.24		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					
RdSAP 04: Direc	ct Bond or Shallow Channel – see p19	€2 or p2	08			
	RdSAP Wall: Solid brick walls and cavity walls 1983-1995					
	Facing Inner Layer(s): 1x 35mm GTEC Thermal XP Board	-	-	0.40		-
	Or: 1x 55mm GTEC Thermal XP Board	-	-	0.33		-
	Or: 1x 30mm GTEC Thermal K Board	-	-	0.38		-
	Or: 1x 40mm GTEC Thermal K Board	-	_	0.31		-
	Or: 1x 50mm GTEC Thermal K Board	-	-	0.27		-
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.23		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.21		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					

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		Max Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN 1364-1	Acoustic Perf. R _w dB
System Ref.	Component	(m)	(mm)	(W/m²k)	(mins)	applicable)
RdSAP 05: Di	irect Bond or Shallow Channel – see p19	92 or p2	08			
	RdSAP Wall: Solid brick walls and cavity walls 1996-2002					
	Facing Inner Layer(s): 1x 22mm GTEC Thermal Board	-	-	0.38		-
	Or: 1x 30mm GTEC Thermal Board	-	-	0.35		-
	Or: 1x 40mm GTEC Thermal Board	-	-	0.32		-
	Or: 1x 50mm GTEC Thermal Board	-	-	0.29		-
	Or: 1x 27mm GTEC Thermal XP Board	-	-	0.36		-
	Or: 1x 35mm GTEC Thermal XP Board	-	-	0.33		-
	Or: 1x 55mm GTEC Thermal XP Board	-	-	0.28		-
	Or: 1x 30mm GTEC Thermal K Board	-	-	0.31		-
	Or: 1x 40mm GTEC Thermal K Board	-	-	0.27		-
	Or: 1x 50mm GTEC Thermal K Board	-	-	0.24		_
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.21		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.19		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					
RdSAP 06: D	irect Bond or Shallow Channel – see p1	92 or p2	08			
	RdSAP Wall: Solid brick walls and cavity walls 2003-2006					
	Facing Inner Layer(s): 1x 22mm GTEC Thermal Board	-	-	0.31		-
	Or: 1x 30mm GTEC Thermal Board	-	-	0.28		-
	Or: 1x 40mm GTEC Thermal Board	-	-	0.26		-
	Or: 1x 50mm GTEC Thermal Board	-	-	0.25		-
	Or: 1x 27mm GTEC Thermal XP Board	-	-	0.29		-
	Or: 1x 35mm GTEC Thermal XP Board	-	-	0.27		-
	Or: 1x 55mm GTEC Thermal XP Board	-	-	0.24		-
	Or: 1x 30mm GTEC Thermal K Board	-	-	0.26		-
	Or: 1x 40mm GTEC Thermal K Board	-	-	0.23		-
	Or: 1x 50mm GTEC Thermal K Board	-	-	0.21		-
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.18		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.17		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					

GTEC LINING SYSTEMS TO THERMALLY UPGRADE EXTERNAL WALLS continued

		Məx Height	Min Thickness	U-Value	Fire Perf. BS476-22 BS EN 1364-1	Acoustic Perf. R, dB
System Ref.	Component	(m)	(mm)	(W/m²k)	(mins)	applicable)
RdSAP 07: Dire	ct Bond or Shallow Channel – see p19	92 or p2	08			
	RdSAP Wall: Solid brick walls and cavity walls 2007-2010					
	Facing Inner Layer(s): 1x 22mm GTEC Thermal Board	-	-	0.27		-
	Or: 1x 30mm GTEC Thermal Board	-	-	0.25		-
	Or: 1x 40mm GTEC Thermal Board	-	-	0.23		-
	Or: 1x 50mm GTEC Thermal Board	-	_	0.22		-
	Or: 1x 27mm GTEC Thermal XP Board	-	-	0.25		-
	Or: 1x 35mm GTEC Thermal XP Board	-	_	0.24		-
	Or: 1x 55mm GTEC Thermal XP Board	-	-	0.21		-
	Or: 1x 30mm GTEC Thermal K Board	-	-	0.23		-
	Or: 1x 40mm GTEC Thermal K Board	-	-	0.21		-
	Or: 1x 50mm GTEC Thermal K Board	-	-	0.19		-
	Or: 1x 60mm GTEC Thermal K Board	-	-	0.17		-
	Or: 1x 70mm GTEC Thermal K Board	-	-	0.16		-
	Lining: GTEC Universal Bonding Compound to form 10mm cavity					

GTEC LINING SYSTEMS TO FRAMED EXTERNAL WALLS

		Max Height	Min Thickness	U-Value	Fire Perf. BS476-21 BS EN	Acoustic Perf. R, dB
System Ref.	Component	(m)	(mm)	(W/m²k)	(mins)	applicable)
RFL 002						
	Facing Inner Layer(s): – Facing Outer Layer(s): 1x 15mm GTEC Vapour Fire Board Lining: Sheathing board – Recommended Aqua Board Insulation: 120mm glass fibre (BS5250) Internal Wall Leaf: Timber Frame Stud work External Wall Leaf: Brickwork	2.4	_	0.30	30 30	51
RFL 003						
	Facing Inner Layer(s): 1x 12.5mm GTEC Vapour Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Lining: Sheathing Board – Recommended Aqua Board Insulation: 120mm glass fibre (BS5250) Internal Wall Leaf: Timber Frame Stud work External Wall Leaf: Brickwork	2.4	_	0.29	60 60	53
RFL 015						
	Facing Inner Layer(s): – Facing Outer Layer(s): 1x 15mm GTEC Vapour Fire Board Lining: Sheathing Board. Recommended Aqua Board Insulation: 120mm glass fibre (BS 5250) Internal Wall Leaf: Timber Frame Stud work with GTEC Resilient Bars at 400mm Centres External Wall Leaf: Brickwork	2.4	_	0.29	30 30	60 -5
RFL 016						
	Facing Inner Layer(s): 1x 12.5mm GTEC Vapour Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Lining: Sheathing Board. Recommended Aqua Board Insulation: 120mm glass fibre (BS5250) Internal Wall Leaf: Timber Frame Stud work with GTEC Resilient Bars at 600mm Centres External Wall Leaf: Brickwork	2.4	-	0.29	60 60	61 -4
RFL 051						
	Facing Inner Layer(s): 1x 12.5mm GTEC Vapour Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire Board Lining: 1 x 15mm Aqua Board Insulation: 150mm glass fibre (BS 5250) within SFS Internal Wall Leaf: 150mm SFS External Wall Leaf: 100mm brick with 50mm cavity	4.2	_	0.34	60 60	59

PARTITIONS

GTEC ROOF LINING SYSTEMS

		Board Weight	Fire Perf. BS476-22 BS EN 1364-1	U-Value (W/m²k)
System Ref.	Component	(kg/m²)	(mins)	
RIR 001: Pitchec	l roof			
	Ceiling: 1x 70mm GTEC Thermal K Board Lining: – Insulation: 100mm Glass fibre (BS5250) Structure: 47mm x 150mm rafters at 400mm centres with noggings	9.2	-	0.17
RIR 002: Pitched	J roof			
	Ceiling: 1x 70mm GTEC Thermal K Board Lining: – Insulation: 50mm Kooltherm K7 Structure: 47mm x 100mm rafters at 600mm centres with noggings	9.2	-	0.17
RIR 003: Horizor	ntal ceiling at roof apex			
	Ceiling: 1x 30mm GTEC Thermal K Board Lining: – Insulation: 100mm Glass fibre over joists, 100mm between joists (BS 5250) Structure: 38mm x 100mm Truss Joists at 400mm centres with noggings	7.2	-	0.16
RIR 004: Ceiling	under flat roof			
	Ceiling: 1x 70mm GTEC Thermal K Board Lining: – Insulation: 75mm 10.5kg/m ³ glass mineral wool Structure: 47mm x 150mm Joists at 600mm centres with noggings, roofing material above	7.3	-	0.25
RTC 031				
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Accessories: – Insulation: 100mm glass mineral wool between Trusses, 150mm over Trusses, 10.5kg/m ³ Structure: 47mm x 100mm Trusses at 400mm centres with noggings	11	30 30	0.15
RTC 032				
	Ceiling Inner Layer(s): 1x 12.5mm GTEC Fire V Board Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire Board Accessories: – Insulation: 100mm glass mineral wool between Trusses, 150mm over Trusses, 10.5kg/m ³ Structure: 47mm x 100mm Trusses at 600mm centres with noggings	12	60 30	0.15

See p191 for notes on alterations to linings configuration.

System Ref.	Component	Board Weight (kg/m²)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	U-Value (W/m²k)
RTC 033				
	Ceiling Inner Layer(s): – Ceiling Outer Layer(s): 1x 12.5mm GTEC Fire V Board Accessories: – Insulation: 100mm glass mineral wool between Trusses, 150mm over Trusses, 10.5kg/m ³ Structure: 38mm x 100mm Trusses at 600mm centres with noggings	11	30 30	0.15
RTC 034				
	Ceiling Inner Layer(s): 1x 15mm GTEC Fire V Board Ceiling Outer Layer(s): 1x 15mm GTEC Fire Board Accessories: – Insulation: 100mm glass mineral wool between Trusses, 150mm over Trusses, 10.5kg/m ³ Structure: 38mm x 100mm Trusses at 600mm centres with noggings	26	60 60	0.15

GTEC PREGYBEL INDEPENDENT LINING SYSTEMS

			Max Height	Weight	Acoustic Absorption Class, BS EN ISO 11654	Absorption co-efficient (Ctw), BS EN ISO 11654
System Ref.	Component		(m)	(kg/m²)		
PGL 001: Preg	ybel Lining – see p236	1	1			
	Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 75mm glass mineral wool and 600mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	В	0.8
PGL 002: Preg	ybel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 50mm glass mineral wool and 600mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.75
PGL 003: Preg	ybel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 50mm glass mineral wool and 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.70
PGL 004: Preg	ybel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel C10no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.60
PGL 101: Pregy	/bel Lining – see p236	1				
	Ceiling Outer Layer(s): 1x GTEC Pregybel R12no2 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 50mm glass mineral wool and 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.7
PGL 102: Preg	/bel Lining – see p236			·	·	
	Ceiling Outer Layer(s): 1x GTEC Pregybel R12no2 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.65

REFERENCE

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			Max Height	Weight	Acoustic Absorption Class, BS EN ISO 11654	Absorption co-efficient (Ctw), BS EN ISO 11654
System Ref.	Component		(m)	(Kg/M²)		
PGL 201: Pregyt	oel Lining – see p236	1				
	Ceiling Outer Layer(s): 1x GTEC Pregybel R15no1 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 50mm glass mineral wool and 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.70
PGL 202: Pregyl	bel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel R15no1 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 30mm glass mineral wool and 50mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.7
PGL 301: Pregyt	pel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel R15no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 50mm glass mineral wool and 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	С	0.60
PGL 302: Pregybel Lining – see p236						
	Ceiling Outer Layer(s): 1x GTEC Pregybel R15no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	D	0.50
PGL 401: Pregyl	pel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel L5x80no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 80mm glass mineral wool and 300mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	D	0.55
PGL 402: Pregy	bel Lining – see p236					
	Ceiling Outer Layer(s): 1x GTEC Pregybel L5x80no8 Lining: GTEC IS50Rx/IS60B/IS70B/ IS90B GTEC I Studs at 600mm centres Insulation: 80mm glass mineral wool and 100mm void	IS50Rx IS60B IS70B IS90B	2.7 3.9 4.5 5.4	12	D	0.55

LININGS PERFORMANCE NOTES

- Performance values are for imperforate, jointed systems using Siniat GTEC components (metal studs and tracks, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type, thickness and density) and installed to Siniat specification and installation guides.
- All calculations are in accordance with Building Regulations: Conservation of fuel and power, Approved Document L: 2010.

GTEC DIRECT BOND LINING SYSTEMS

The GTEC Direct Bond Lining system is the simplest option for single layer drylining of masonry substrates. It provides a clean, flat and easy to finish surface by bonding GTEC Board to the masonry substrate. This construction method reduces drying out time speeding up internal fit-out.

The system uses GTEC Universal Bonding Compound to directly attach GTEC Plasterboards to the wall and corrects minor surface irregularities. GTEC Thermal Boards can also be bonded to increase thermal performance through the wall.

WHERE TO USE:

 GTEC Direct Bond Lining systems are used in new build residential and general renovation projects.

FEATURES	BENEFITS
Few products required	Low installation cost
Limited increase in wall thickness	Minimal effect on room size and achieves the required finish
Service cavity of 10-25mm can be created	Allows installation of conduits and small services
Suitable for GTEC Thermal Boards	One-fix method of achieving required thermal performance
Workable bonding compound	Easily achieves air tightness by bonding around the wall perimeter
	Allows adjustment during boarding
Bonds to the majority of masonry substrates	Suits most construction projects and corrects surface irregularities





SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards, except Aqua Board and GTEC Vapour Board Provides wall surface suitable for finishing.	See performance tables, p180-191
	All GTEC Thermal Boards Provides wall surface suitable for finishing and thermal insulation	See performance tables, p180-191
FRAME		
	None required	
FIX		
Company Bandy Company Company	GTEC Universal Bonding Compound Directly bonds plasterboard to walls	n/a
-	GTEC Nailable Plug Mechanical secondary fixing of GTEC Thermal Boards	n/a
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
DTRC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
Area and a	GTEC Sealers To seal plasterboard prior to decoration	n/a
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2

SYSTEM GUIDANCE SUBSTRATE

- GTEC Direct Bond Lining system is suitable for most level, masonry substrates.
- All substrates to be clean and dust free with all loose material removed. All grease, oil and contaminants to be removed; chemical cleaning may be required.
- Substrate treatment for bonding:

Substrate	Treatment
Very low suction	May require mechanical fixing
Low and medium suction	None
High suction	PVAC bonding agent

- All loose plasterwork to be removed. Existing plasterwork in good condition may be suitable for GTEC Direct Bonding provided all paint has been removed and adequate key is established by treating with a PVAC bonding agent according to manufacturer's instructions.
- Substrates subject to moisture ingress to use mechanical fixing system. External solid walls with render finishes exposed to severe frosts are not suitable for bonding.

BONDING

LG-DB-180M-Dab sizing



LG-DB-182S-Base detail – GTEC Thermal Boards



LG-DB-183S-Head detail





LG-DB-181S-Base detail

LG-DB-184S-Head detail – GTEC Thermal Boards



 Boards to be fixed to substrate using GTEC Universal Bonding Compound. Minimum 20% contact area between boards and dabs.

Bonding dabs to be:

- ▶ 250mm x 50-75mm.
- Minimum 10mm thick and up to 25mm to provide board levelling.
- At 600mm maximum horizontal centres and 300mm maximum vertical centres.
- At 400mm maximum horizontal centres and 300mm vertical centres for GTEC Thermal Boards.
- Minimum of three 'columns' of dabs per board.
- Minimum 25mm from board edges.

- Continuous ribbons of bonding compound to be provided 50mm from head and base of each board and around perimeter of walls to ensure air-tightness and provide robust fixing for trims.
- Socket boxes to be surrounded by continuous ribbon of bonding compound.

BOARDING

LG-DB-201E-Nailable plug arrangement



MOVEMENT CONTROL JOINTS

- Form movement control joints at maximum 10m intervals in the lining run.
- Form movement control joints where the lining crosses a structural movement joint.

- The GTEC Direct Bond lining system is suitable for single layer boarding only.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System
 Performance Tables, p180-191, and Product
 Specification, p294-307 to achieve required
 performance. See High Performance Boards
 guide p12 for further selection information.
- GTEC Vapour Board and Aqua Board cannot be bonded using the GTEC Direct Bond lining system.
- Boards to be 5mm less than floor to ceiling height.

Thermal Boards only:

- Select GTEC Thermal Board type and thickness according to desired thermal value and requirement for vapour barrier.
- GTEC Thermal Board thickness may be reduced by utilising higher insulation grade boards, e.g. GTEC Thermal K Board.
- Retain each GTEC Thermal Board with two GTEC Nailable Plugs to suit board depth, fitted through holes drilled in board, through cavity and penetrating 25mm into masonry substrate. Render or plaster should not be regarded as a stable substrate for GTEC Nailable Plug penetration.

- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.
- Continuous ribbon of GTEC Universal Bonding Compound to be provided either side of movement control joint.

OPENINGS



LG-DB-403P-Window reveal – GTEC Thermal Boards



 See Construction Details Drawings for further guidance on arrangement and fixing.



PLAN

INTRODUCTION 199

CORNERS AND JUNCTIONS

LG-DB-501P-Internal corner



LG-DB-503P-External corner







LG-DB-502P-Internal corner – GTEC Thermal Boards



LG-DB-504P-External corner – GTEC Thermal Boards



LG-DB-506P-Partition junction – GTEC Thermal Boards



 See Construction Details Drawings for further guidance on arrangement and fixing.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated linings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

 All fixtures to be fixed through to substrate using appropriate fixings.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.

REFERENCE

FINISHING

GTEC CONTOUR LINING SYSTEMS

The GTEC Contour Lining system is a simple and fast means of renovating flat walls which simply need a new, consistently smooth finish e.g. tiled or plastered walls which have become scuffed or chipped.

The system uses GTEC Wall Lining Adhesive to directly attach light and strong GTEC Contour Board to the substrate. It provides a smooth surface by boarding over existing finishes but will not correct substrates which are out of plumb.

Once complete, the system provides a smooth and easy to finish plasterboard surface in the minimum thickness.

WHERE TO USE:

 GTEC Contour Board Lining system is suitable for use over existing wall finishes such as distressed tiled walls.

FEATURES	BENEFITS
8mm total lining thickness	Minimum increase in wall thickness
Quick curing adhesive	Can be jointed and finished quickly after initial installation
High strength adhesive	No need to remove firmly attached plasterwork or tiling from the substrate
Lightweight board	Easy to install



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flat, smooth substrate requiring refurbishment of surface only

PARTITIONS

SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards, except Aqua Board and GTEC Vapour Board Provides wall surface suitable for finishing	
	GTEC Contour Board Provides wall surface suitable for finishing in minimum thickness	
FRAME		
	None required	
FIX		
Artc	GTEC Wall Lining Adhesive Ready mixed adhesive for direct bonding to substrate	n/a
-	GTEC Nailable Plug Mechanical secondary fixing of GTEC Contour Boards	n/a
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
Correction Stream	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
Area Seas	GTEC Sealers To seal plasterboard prior to decoration	n/a
-	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2

SYSTEM GUIDANCE SUBSTRATE

- GTEC Contour Lining system is suitable for most flat, level, secure substrates not subject to moisture ingress which require only surface renovation.
- All substrates to be clean with all loose material, wallpaper and protrusions removed. All contaminants to be removed from ceramic tiles.
- Substrate treatment for bonding:

Substrate	Treatment
Low suction / dusty	May require PVAC bonding agent
Medium suction	Coarse sanding
High suction	n/a

BONDING

 Boards to be fixed to substrate using GTEC Wall Lining Adhesive.

Bonding dabs to be:

- ▶ 25mm x 25mm.
- 2mm thick after board application.
- At 300mm maximum horizontal and vertical centres.
- Minimum 25mm from board edges.

BOARDING

LG-CN-201E-Nailable plug arrangement



- The GTEC Contour Board lining system is suitable for single layer boarding only.
- The GTEC Contour Lining system is designed for use with 6mm GTEC Contour Board only.
- Boards to be 5mm less than floor to ceiling height.
- Retain each GTEC Contour Board with five GTEC Nailable Plugs to suit board depth, fitted through holes drilled in board, penetrating 25mm into substrate. Render or plaster should not be regarded as a stable substrate for GTEC Nailable Plug Penetration.

MOVEMENT CONTROL JOINTS

- Form movement control joints at maximum 10m intervals in the lining run.
- Form movement control joints where the lining crosses a structural movement joint.
- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

Thermal Boards only:

 GTEC Contour Lining system is not suitable for use with GTEC Thermal Boards.

FIXTURES

 All fixtures to be fixed through to substrate using appropriate fixings.

SYSTEM CONTINUITY

The substrate behind the GTEC Contour Lining system must provide the fire, acoustic and thermal performance required by the wall element, GTEC Contour Board is a surface renovation board only.

YSGOL BAE BAGLAN PORT TALBOT, WALES, UK

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Sector: Education Project Value: £40 million Client: Neath Port Talbot County Borough Council Architect: Stride Treglown Main Contractor: Bouygues UK Sub Contractor: Richard Kemble Contracts

Siniat Innovations: Megadeco, Pregybel, Weather Defence

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REFERENCE

GTEC SHALLOW WALL LINING SYSTEMS

The GTEC Shallow Wall Lining system is an alternative to the GTEC Direct Bond Lining system. It provides a mechanical fix for boards which are unsuitable for use with GTEC Universal Bonding Compound. It can also create a fully mechanically fixed option where the substrate cannot be bonded, such as some concrete walls.

The system uses GTEC Universal Bonding Compound to attach GTEC Shallow Wall Channels to the substrate providing a fixing surface for GTEC Boards. When bonded, it can correct minor surface irregularities through minimal levelling adjustment of the shallow channel before the dabs have cured. Alternatively, the GTEC Shallow Wall Channels can be fixed directly into the substrate.

WHERE TO USE:

 The GTEC Shallow Wall Lining system is suitable for most project types and masonry substrates.

FEATURES	BENEFITS
Plasterboard finish	Easy to decorate flat surface
Intermittent cavity up to 25mm deep	Space for small conduits and services
Mechanical board fixing	Substrate for all GTEC Boards
Mechanical or adhesive channel fixing	Fixes to most substrates
Compatible with GTEC Thermal Boards	Improves U-values
Perforated channel for bonding key	Strong and easy to fix



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	All GTEC Boards Provides wall surface suitable for finishing in minimum thickness	See performance tables, p180-191
	All GTEC Thermal Boards Provides wall surface suitable for finishing and thermal insulation	See performance tables, p180-191
FRAME		
	GTEC Shallow Wall Channel Dabbed or fixed to wall to provide fixing substrate for boards	MFCS/RX
Summer -	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ304D
FIX		
Prece Distance Basics Concession	GTEC Universal Bonding Compound Gypsum based compound for bonding GTEC Shallow Wall Channel to walls. Suitable for GTEC thermal boards	n/a
~//	GTEC Drywall Screws (as appropriate) For mechanical fixing of boards to GTEC Shallow Wall Channel	See screw selector, p334
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a
Contract Con	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
graz ta fan Syssel Soam	GTEC Sealers To seal plasterboard prior to decoration	n/a
-	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2

SYSTEM GUIDANCE SUBSTRATE

- GTEC Shallow Wall Lining system is suitable for most level, masonry substrates and may be bonded or mechanically fixed.
- All substrates to be clean and dust free with all loose material removed. All grease, oil and contaminants to be removed; chemical cleaning may be required.
- Substrate treatment for bonding:

Substrate	Treatment
Very low suction	May require mechanical fixing
Low and medium suction	None
High suction	PVAC bonding agent

FRAME

LG-ML-101S-Head Detail



LG-DB-180M-Dab sizing



- All loose plasterwork to be removed. Existing plasterwork in good condition may be suitable for GTEC Universal Bonding Compound provided all paint has been removed and key is established by treating with a PVAC bonding agent according to manufacturer's instructions.
- Substrates subject to moisture ingress require mechanical fixing of GTEC Shallow Wall Channels. External solid walls with render finishes exposed to severe frosts are not suitable for bonding.





LG-ML-181M-Mechanical fixing



PARTITIONS

FRAME continued

- GTEC Shallow Wall Channel to be fixed to substrate in continuous vertical lengths at 600mm horizontal centres using dabs of GTEC Universal Bonding Compound or mechanically fixed using appropriate fixings by others.
- GTEC Shallow Wall Channels may be shot fired to dense substrates following fixing manufacturer's instructions.
- Horizontal lengths of GTEC Shallow Wall Channel to be fixed maximum 50mm from head and base of lining.

Bonding dabs to be:

- 250mm x 50-75mm.
- Minimum 10mm thick and up to 25mm to provide board levelling.
- At 450mm maximum vertical centres.
- Minimum of two dabs per channel not exceeding vertical centres above.
- Minimum 25mm from board edges.
- Continuous ribbons of bonding compound to be provided 50mm from head and base of board and around perimeter of walls and openings to provide fixing for horizontal channel.
- Socket boxes to be surrounded by continuous ribbon of bonding compound.

BOARDING

- The GTEC Shallow Wall lining system is suitable for single layer boarding only.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System Performance Tables, p180-191, and Product Specification, p294-307, to achieve required performance. See High Performance Boards guide p12 for further selection information.
- Boards to be 5mm less than floor to ceiling height.
- Board edges to be centred over channels.
- Boards to be mechanically fixed to channels at 300mm centres using appropriate GTEC Drywall Screws. See screw selector p334.

Height of GTEC Shallow Wall linings should not exceed two boards in height in one operation. Safety precautions should be taken when bonding boards above single board height.

Thermal Boards only:

- Select GTEC Thermal Board type and thickness according to desired thermal value and requirement for vapour barrier.
- GTEC Thermal Board thickness may be reduced by utilising higher insulation grade boards, e.g. GTEC Thermal K Board.

MOVEMENT CONTROL JOINTS

LG-ML-301P-Movement joint



- Form movement control joints at maximum 10m intervals in the lining run.
- Form movement control joints where the lining crosses a structural movement joint.
- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS AND CORNERS



OPENINGS AND CORNERS continued

LG-ML-501P-Internal corner



LG-ML-503P-Junction with partition



 GTEC Shallow Wall Channel to be fixed vertically and horizontally around openings to provide maximum 50mm of unsupported board.



 At corners GTEC Shallow Wall Channel to be fixed vertically to provide maximum 50mm of unsupported board.


FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated linings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

 All fixtures to be fixed through to substrate using appropriate fixings.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.
- Where channels are mechanically fixed there are no inherent restrictions on height providing board loads are fully transferred to substrate.

GTEC DRYLINER LINING SYSTEMS

The GTEC Dryliner Lining system is a fully dry, light frame, drylining system. The cavity created behind the boards allows for heavier services and sound or thermal insulation.

For stable, high performance drylining, the system uses GTEC Dryliner Brackets fixed to the substrate to support a frame of GTEC Dryliner Channel and Tracks.

Once complete, the GTEC Dryliner Lining system provides a clean, flat and easy to finish plasterboard surface with superior technical performance than shallow lining systems.

WHERE TO USE:

The GTEC Dryliner Lining system is ideal for most stable substrates where continuous cavities behind boards of up to 130mm are required and/or where high levels of substrate correction are needed.

FEATURES	BENEFITS
Plasterboard finish	Easy to decorate flat surface
Cavity up to 130mm deep	Space for heavy duty services and insulation
Mechanical fixing board	Fixes all GTEC Boards
Cavity frame design	Achieves higher technical performances
Mechanical fixing bracket	Fixes to most stable substrates
Compatible with GTEC Thermal Boards	Improves U-values
Adjustable bracket design	Can adjust depth for high level of substrate correction



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference				
BOARDS						
	All GTEC Boards Provides ceiling surface suitable for finishing	See performance tables, p180-191				
	All GTEC Thermal Boards Provides wall surface suitable for finishing and thermal insulation	See performance tables, p180-191				
FRAME						
	GTEC Dryliner Channel A galvanised steel furring channel for plasterboard fixing	RD1				
The second secon	GTEC Dryliner Channel Connector A galvanised clip used to join sections of GTEC Dryliner Channel	RD3				
L	GTEC SR bracket Adjustable bracket to brace GTEC Dryliner Channel to substrate	RD2				
L	GTEC XR bracket Adjustable, extended reach bracket to brace GTEC Dryliner Channel to substrate	RD11				
	GTEC Dryliner Track J shaped metal section used as a track and perimeter channel	RD9				
	GTEC Metal Angle Multi-purpose metal section	MFC2330, MFC2525, MFC2550				
AN A	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048				
INSULATION						
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance tables supplied by others				
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR				
FIX						
v / /	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334				

System Component	System primary use	Product Reference			
FINISHING					
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a			
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a			
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a			
BITRC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280			
Brazz State	GTEC Sealers To seal plasterboard prior to decoration	n/a			
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2			

SYSTEM GUIDANCE SUBSTRATE

- GTEC Dryliner Lining system is suitable for most stable substrates where fixing of bracket will be structurally secure.
- Finished substrates may be fixed to provided bracket fixing penetrates into structure.
- GTEC Independent Wall Lining system to be used for substrates subject to uncontrolled moisture ingress.

FRAME

LG-DY-002P-Cavity size range











LG-DY-104S-Base detail – GTEC Thermal Boards



LG-DY-103S-Base detail



- GTEC Dryliner Track to be fixed to structure at perimeter of lining run. Fix at 600mm centres using appropriate fixings. Allow for board depth when positioning channel and to achieve required cavity depth.
- Select GTEC Dryliner Brackets (SR and XR) to suit cavity depth required:

GTEC Dryliner Bracket	Cavity Depth Range
GTEC SR Bracket	25mm-60mm
GTEC XR Bracket	25mm-130mm

 GTEC Dryliner Channel to be positioned at maximum 600mm centres for GTEC Board and at maximum 400mm horizontal centres for GTEC Thermal Boards.

INSULATION

Any insulation to be of type and thickness to achieve performance and tightly installed in a continuous layer between brackets and behind channels.

BOARDING

- The GTEC Dryliner lining system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System
 Performance Tables, p180-191, and Product
 Specification, p294-307, to achieve required performance. See High Performance Boards
 guide p12 for further selection information.
- Boards to be 5mm less than floor to ceiling height.
- Board edges to be centred over channels.
- Boards to be mechanically fixed to channels and track at 300mm centres using appropriate GTEC Drywall Screws.
 See screw selector p334.
- Board joints to be staggered between layers.

- GTEC Dryliner Brackets to fixed to structure in a line at maximum 800mm vertical centres to receive GTEC Dryliner Channel:
- GTEC SR and XR Brackets to be fixed using appropriate structural fixing supplied by others.
- GTEC Dryliner Channel to be 5mm shorter than floor to ceiling height, located into GTEC Dryliner Track.
- GTEC Dryliner Channel to be attached to both GTEC Dryliner Bracket legs with appropriate GTEC Drywall Screws (see screw selector p334) and levelled by adjusting brackets. Excess bracket leg length to be removed or bent back.
- GTEC Dryliner Channel may be spliced if necessary using GTEC Dryliner Channel Connector.
- Where insulation may be expected to slump suspend from GTEC Insulation Hold strips 150mm from top of partition and at 1200mm vertical centres.
- 10mm clear gap to be maintained between substrate and insulation.

Over-height single layer boarding:

Where partition height exceeds board height fix boards to continuous band of GTEC Flat Strap FS90/W or GTEC MFIX behind all horizontal joints to maintain fire integrity.

Over-height multiple layer boarding only:

Where partition height exceeds board height for double or multiple layer boarding fix outer layer of boards to continuous band of GTEC Flat Strap FS50/RX behind all horizontal joints.

Thermal Boards only:

- Select GTEC Thermal Board type and thickness according to desired thermal value and requirement for vapour barrier.
- GTEC Thermal Board thickness may be reduced by utilising higher insulation grade boards, e.g. GTEC Thermal K Board.

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MOVEMENT CONTROL JOINTS

LG-DY-301P-Movement joint



LG-DY-302P-Movement joint – GTEC Thermal Boards Max. Max.



- ► Form movement control joints at maximum 10m intervals in the lining run.
- Form movement control joints where the lining crosses a structural movement joint.
- ▶ Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS AND CORNERS





LG-DY-501P-Internal Corner



LG-DY-503P-External corner



LG-DY-505P-Partition junction





LG-DY-504P-External corner – GTEC Thermal Boards



LG-DY-506P-Partition junction – GTEC Thermal Boards



LG-DY-502P-Internal corner – GTEC Thermal Boards

REFERENCE

OPENINGS AND CORNERS continued

LG-DY-507P-Change in lining depth



At external corners GTEC Dryliner Channel and brackets to be positioned maximum of 25mm from edge of substrate. GTEC Metal Angle to be fixed to head and base track to provide internal reinforcement and fixing substrate.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated linings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

- Fixtures may be fixed through to substrate using appropriate fixings or fixed through board to channels.
- Fixtures may be attached directly to board provided adequate provision has been made.
 See guidance in GTEC C Stud Partitions section, p67.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity to be maintained to achieve rated performances.
- There are no inherent restrictions on height provided loads are fully transferred to substrate. Contact Technical Services for further guidance.



GTEC INDEPENDENT WALL LINING SYSTEMS

Based on the GTEC C Stud Partition system, the GTEC Independent Wall Lining system is a fully dry, light frame, drylining system. It is completely separated from the underlying substrate.

The GTEC Independent Wall Lining system combines GTEC Boards with GTEC I or C Studs fixed into GTEC U Tracks. The cavity created behind the boards can be of any depth. This allows for heavy services, ducting, and insulation.

Once complete, the GTEC Independent Wall Lining system provides a clean, flat and easy to finish plasterboard surface, offering the highest technical performances.

WHERE TO USE:

- Ideal for commercial projects where deep continuous cavities behind boards are needed to correct or isolate substrates and accommodate services.
- Particularly suited to substrates which may not be suitable for direct fixing, e.g. metal cladding and other modern methods of construction.

FEATURES	BENEFITS
Plasterboard finish	Easy to decorate flat surface
Completely variable cavity depth	Provides space for heavy duty services and the highest levels of insulation
Mechanical board fixing	Fix all GTEC Boards
Cavity frame design	Achieves higher technical performances
Based on GTEC Metal C Stud system	Reliable and commonly used
Completely independent from substrate	No thermal bridging created
Drylines any substrate	Can adjust depth for high level of substrate correction
Creates false wall	Upgrade existing structures

PARTITIONS

FLOORS AND CEILINGS

LININGS

FIRE PROTECTION



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FINISHING

SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference				
BOARDS						
	All GTEC Boards Provides wall surface suitable for finishing	See performance tables, p180-191				
	All GTEC Thermal Boards Provides wall surface suitable for finishing and thermal insulation	See performance tables, p180-191				
FRAME						
	GTEC I Studs Metal profile for vertical frame elements	IS50/RX, IS60/B, IS70/B, IS90/B				
	GTEC C Stud Metal profile for vertical frame elements	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/B, CS90/W, CS70/Y, CS90/Y, CS146/Y				
	GTEC U Track Metal profile for head and base frame elements	UT52/RX, UT62/RX, UT72/RX, UT92/RX, UT148/RX				
	GTEC U Track Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UDT62/B, UDT72/B, UDT92/B, UDT148/B				
	GTEC U Track Extra Deep Flange Used for partitions with heights exceeding 4.2m and with deflection heads	UXT72/B, UXT92/W, UXT148/W				
	GTEC Acoustic V Brace 90° For bracing lining to substrate	VBRACE90				
	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX				
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330				
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W				
ACCOUNTS OF	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048				
INSULATION						
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others				
1	GTEC Insulation Hold Secures insulation to prevent slump	INSR				
FIX						
v//	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334				

System Component	System primary use	Product Reference				
FINISHING						
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a				
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a				
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a				
DYRC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280				
erz:	GTEC Sealers To seal plasterboard prior to decoration	n/a				
+	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2				

SYSTEM GUIDANCE SUBSTRATE

- GTEC Independent Wall Lining system is fully independent of the substrate.
- Protrusions greater than design cavity depth to be removed.

FRAME

LG-IW-101S-Head detail



To stud at 300mm centres to stud at 300mm centres GTEC Board to suit required performance GTEC I Stud cut 5mm shorter than floor to ceiling height GTEC U Track Deep Flange fixed at 600mm centres

screw fix plasterboard

I G-IW-102S-Base detail

Min.

- Select compatible sized (e.g. 50mm stud and 52mm track) GTEC I Stud, GTEC C Stud and GTEC U Track framing elements to suit system performance.
- GTEC U Track Deep or Extra Deep Flange to be used for heights greater than 4.2m.
- GTEC C Studs as starter studs to be fixed with web flat to structure using appropriate fixings at maximum 600mm centres and fixed to head and track with appropriate GTEC Drywall Screws (see screw selector p334).
- GTEC U Track to be fixed flat to structure using appropriate fixings at maximum 600mm centres and positioned a minimum of 10mm from substrate.
- Timber sole plate may be required on uneven floors or where lining is constructed prior to screeding.

- Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- All GTEC Studs to be 5mm shorter than floor to ceiling height except in case of deflection requirement.
- Intermediate GTEC Studs to be friction fitted to allow for adjustment during boarding.
- GTEC Studs to be at centres required to achieve performance and at a maximum of 600mm centres.
- For heights over values in performance tables GTEC Acoustic V Brace 90 may be used to brace linings while maintaining acoustic isolation. Contact Technical Services for more information.

INSULATION

- Any insulation to be of type and thickness to achieve performance and installed in a continuous layer between and behind studs to suit required performance.
- Where insulation may be expected to slump suspend from GTEC Insulation Hold strips fixed across studs, 150mm from top of partition and at 1200mm vertical centres.

BOARDING

- GTEC Independent Lining system is suitable for single, double and multiple layer boarding.
- Select base layer(s) and finishing layer(s) GTEC Boards by consulting System
 Performance Tables, p180-191, and Product
 Specification, p294-307, to achieve required performance. See High Performance Boards
 guide p12 for further selection information.
- Boards to be 5mm less than floor to ceiling height.
- Strips of board 300mm wide or less to be avoided by stud location rearrangement.
- Boards to be mechanically fixed to studs at 300mm centres using appropriate GTEC Drywall Screws. See screw selector p334.
- Base layers of boarding may be temporarily fixed at 600mm centres providing final layer is fixed through to stud at 300mm centres
- Board edges to be centred over studs.
- Stagger all board joints between layers.
- Stagger all board joints on opposing sides of partition.

Over-height single layer boarding only:

Where partition height exceeds board height fix boards to continuous band of GTEC Flat Strap FS90/W or GTEC MFIX behind all horizontal joints to maintain fire integrity.

Over-height multiple layer boarding only:

Where partition height exceeds board height for double or multiple layer boarding fix outer layer of boards to continuous band of GTEC Flat Strap FS50/RX behind all horizontal joints.

Thermal Boards only:

- Select GTEC Thermal Board type and thickness according to desired thermal value and requirement for vapour barrier.
- GTEC Thermal Board thickness may be reduced by utilising higher insulation grade boards, e.g. GTEC Thermal K Board.

REFERENCE

MOVEMENT CONTROL JOINTS

LG-IW-301P-Movement joint



- Form movement control joints at maximum 10m intervals in the partition run.
- Form movement control joints where the partition crosses a structural movement joint.
- Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS

LG-IW-401P-Window reveal



- Sections of GTEC C Studs to be fitted to back of jamb C Stud above and below opening.
- Reinforce head-to-jamb junction 150mm down each jamb stud by cutting and folding head track.
- Jamb studs to be fixed to track with appropriate GTEC Drywall Screws (see screw selector p334).
- Reveals may be formed by fixing plasterboard to web of GTEC C Stud. Additional studs and tracks may be required for deeper reveals.

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CORNERS AND JUNCTIONS

LG-IW-501P-Internal Corner



LG-IW-503P-Junction with partition



LG-IW-505P-Braced acoustic lining



LG-IW-502P-External Corner



LG-IW-504P-Acoustic rated junction



- Abutting partitions to coincide with studs, install additional intermediate 'pick-up' stud if required.
- Connect studs through plasterboards at corners and junctions at 600mm vertical centres using appropriate GTEC Drywall Screws.
- See Construction Details Drawings for further guidance on arrangement and fixing.

PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated partitions.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.
- Protect all electrical cables in cavity with conduit.

FIXTURES

 Fixtures may be attached directly to board provided adequate provision has been made.
See guidance in GTEC C Stud Partitions section, p50.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity must be maintained to achieve rated performances.



ABERDEEN SPORTS VILLAGE AQUATICS CENTRE ABERDEEN, SCOTLAND

Sector: Leisure

Project Value: 18.2 million Client: Aberdeen Sports Village Architect: FaulknerBrowns Main Contractor: Graham Construction Sub Contractor: Clarke Contracts

Siniat Innovations: Aqua Board, Megadeco, Pregybel

GTEC PREGYBEL INDEPENDENT LINING SYSTEMS

Sound absorbing wall linings can be created using the GTEC Pregybel Independent Lining system to improve acoustic comfort by reducing sound reflection in larger spaces.

Used above pedestrian height perforated GTEC Pregybel Board is applied to the GTEC Independent Wall Lining system with insulation for an easy to install sound absorbing lining. Flexible design and simple specification can be achieved by using these standard components. Attractive designs are possible created with the variety of patterns in the GTEC Pregybel range.

Standalone acoustic panels can also be created to mount to walls to improve sound absorption.

WHERE TO USE:

 GTEC Pregybel Independent Linings are used in commercial applications to improve the acoustic conditions in large spaces.

FEATURES	BENEFITS		
Variable cavity depth	Cavity size can be optimised for service and insulation requirements		
	Up to Class B acoustic absorption		
Utilises GTEC Independent Wall Lining framing	One set of components on site. Easy to install.		
Creates a false wall	Can be used to upgrade existing structures		
Perforated boards in a range of patterns	Provides a range of aesthetic options for variation in large spaces		



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference				
BOARDS						
>>	GTEC Pregybel Boards Perforated board for acoustic absorption	See performance tables, p180-191				
FRAME						
A	GTEC I Studs Metal profile for vertical frame elements	IS50/RX, IS60/B, IS70/B, IS90/B				
	GTEC C Stud Metal profile for vertical frame elements	CS50/RX, CS60/RX, CS70/RX, CS90/RX, CS146/RX, CS70/B, CS90/B, CS146/B, CS90/W, CS70/Y, CS90/Y, CS146/Y				
	GTEC U Track Metal profile for head and base frame elements	UT52/RX/Y, UT62/RX, UT72/RX, UT92/ RX, UT148/RX				
	GTEC U Track Deep Used for linings with heights exceeding 4.2m	UDT52/B, UDT62/B, UDT72/B, UDT92/B, UDT148/B				
	GTEC U Track Extra Deep Used for linings with heights exceeding 4.2m	UXT72/B, UXT92/W, UXT148/W				
	GTEC Acoustic V Brace 90° For bracing lining to substrate	VBRACE90				
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330				
Support of the second s	GTEC Movement Control Joint Flexible metal profile to create movement joint	MCJ3048				
INSULATION						
	Mineral wool insulation Increases fire and acoustic insulation performance	See performance table supplied by others				
6	GTEC Insulation Hold Secures insulation to prevent slump	INSR				
FIX						
× < /	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334				

System Component	System primary use	Product Reference			
FINISHING					
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a			
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a			
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration. Ensures system performance	n/a			
OTRC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280			
Braz Care	GTEC Sealers To seal plasterboard prior to decoration	n/a			
-	GTEC Socket Pad To maintain acoustic and fire integrity at sockets	PAD1&2			

SYSTEM GUIDANCE

See guidance in GTEC Independent Wall Lining section and additional considerations given below:

BOARDING

LG-PG-101S-Head detail Min. 10mm GTEC Intumescent Acoustic Sealant GTEC U Track Deep Flange fixed at 600mm centres • GTEC Pregybel Board to suit required performance GTEC I Stud 5mm shorter than floor to ceiling height Min. 10mm screw fix plasterboard to stud at 300mm centres SECTION

LG-PG-102S-Base detail

screw fix plasterboard to stud at 300mm centres GTEC Pregybel Board to suit required performance GTEC I Stud cut 5mm shorter than floor to ceiling height GTEC U Track Deep Flange fixed at 600mm centres GTEC Intumescent Acoustic Sealant SECTION 239

INTRODUCTION

PARTITIONS

BOARDING continued

LG-PG-501P-Internal Corner



- GTEC Pregybel Independent Lining system is suitable for single layer boarding.
- Select GTEC Pregybel Board according to acoustic performance required and desired perforation pattern.
- Studs to coincide with areas of unperforated board.



- GTEC Pregybel boards to be arranged to achieve desired board pattern. GTEC Pregybel Boards and GTEC Boards may be mixed for decorative effect however acoustic absorption only occurs where board, void and insulation match the system performance.
- GTEC Pregybel boards are recommended for use above pedestrian height unless otherwise protected.

PENETRATIONS

 M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated linings.

FINISHING

- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Pregybel Board to be sealed and painted with rollers to prevent blocking tissue backing and reducing absorption capability.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Only areas with full system continuity will achieve rated performances.
- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings to prevent dust accumulation.

LG-PG-502P-External Corner

ACOUSTIC PANEL

LG-PG-002M-Pregybel Acoustic Panel



- GTEC Acoustic Panels are suitable for fixing to most, level, stable and secure substrates and should be fixed with appropriate fixings capable of supporting the load of the panel.
- Box to be positioned above height of pedestrian movement to prevent crowd loading, GTEC Acoustic Panels are selfsupporting only.

LG-PG-103E-Acoustic Panel frame options



Board and insulation configuration to be selected according to acoustic absorption and pattern required, see performance tables p180-191.



FIRE PROTECTION

GTEC Shaftwall range uses a specially designed system to protect voids and shafts in buildings. It resists pressure changes and enables installation from one side of the shaft only. GTEC Encasement Fire Protection offers rapid installation of fire protection around columns and beams.

Performance Tables

GTEC Encasement systems	268
GTEC Shaftwall systems	254
GTEC Encasement systems	250
GTEC Horizontal Shaftwall systems	249
GTEC Shaftwall Stairwell systems	248
GTEC Shaftwall systems	244

Note: During 2017, 25mm Fire Core Board products will be replaced with 19mm Fire Core Board. The Drywall Manual will be updated during the year to reflect these changes. For further information please contact Technical Services.

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REFERENCE

GTEC SHAFTWALL SYSTEMS

See p254 for guidance

y== y		System Weight	Max Height	Max Height Back-to- Back GTEC E Studs	Nominal Thickness	Fire Perf. BS476-22 BS EN 1364-1	Strength Duty Rating to BS 5234	Acoustic Perf. R, dB
System Ref.	Component	(kg/m²)	(m)	(m)	(mm)	(mins)		applicable)
RCS 102								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	35	4.2	2x ES60B 4.5	78	60 30	Severe	39
RCS 106								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	36	4.2	2x ES60B 4.5	78	60 60	Severe	45
RCS 203								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	36	6.0	2x ES90B 6.4	107	60 30	Severe	43
RCS 208								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	37	6.0	2x ES90B 6.4	107	60 60	Severe	51
RCS 310								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	38	6.8	2x ES146B 8.0	161	60 60	Severe	43
RCS 311								
	Facing: 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	38	6.8	2x ES146B 8.0	161	60 60	Severe	51

See p251 for notes on alterations to fire protection configuration.

		System Weight	Max Height	Max Height Back-to- Back GTEC E	Nominal Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	Studs (m)	(mm)	1364-1 (mins)	BS 5234	(C _{tr} where applicable)
RCS 103								
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	42	4.4	2x ES60B 4.7	88	90 90	Severe	40
RCS 104								
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	43	4.4	2x ES60B 4.7	88	90 90	Severe	46
RCS 205								
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	43	6.4	2x ES90B 6.8	118	90 90	Severe	45
RCS 207							1	
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	44	6.4	2x ES90B 6.8	118	90 90	Severe	52
RCS 301								
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	47	7.5	2x ES146B 8.2	175	90 90	Severe	50

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REFERENCE

GTEC SHAFTWALL SYSTEMS continued

		System Weight	Max Height	Max Height Back-to- Back GTEC E Studs (m)	Nominal Thickness	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234	Acoustic Perf. R, dB (C _{tr} where
System Ref.	Component	(kg/iii)		(11)	(IIIII)	(111113)		opplicoolc)
	Facing Inner Layer(s):	47	7.5	2x	175	90	Severe	52
	Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool			8.2		90		
RCS 109								
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	45	4.8	2x ES60B 5.1	95	120 90	Severe	41
RCS 110		1						
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	46	4.8	2x ES60B 5.1	95	120 90	Severe	47
RCS 206								
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	47	6.7	2x ES90B 7.1	120	120 90	Severe	47
RCS 210								
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	48	6.7	2x ES90B 7.1	120	120 90	Severe	54

See p251 for notes on alterations to fire protection configuration.

System Ref.	Component	System Weight (kg/m²)	Max Height (m)	Max Height Back-to- Back GTEC E Studs (m)	Nominal Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-1 (mins)	Strength Duty Rating to BS 5234	Acoustic Perf. R _w dB (C _{tr} where applicable)
RCS 303	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	51	8.0	2x ES146B 9.2	180	120 90	Severe	51
RCS 304	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS146B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: 25mm 16kg/m ³ glass mineral wool	52	8.0	2x ES146B 9.2	180	120 90	Severe	54

GTEC SHAFTWALL STAIRWELL SYSTEMS

See p265 for guidance

		System Weight	Max Height	Max Height Back-to- Back GTEC E	Nominal Thickness	Fire Perf. BS476-22 BS EN	Strength Duty Rating to	Acoustic Perf. R _w dB
System Ref.	Component	(kg/m²)	(m)	Studs (m)	(mm)	1364-1 (mins)	BS 5234	(C _{tr} where applicable)
RCS 503								
	Facing: 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: 1x 12.5mm GTEC Fire or Megadeco Board Insulation: –	42	4.5	-	88	120 90	Severe	40
RCS 504								
	Facing: 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: 1x 12.5mm GTEC Fire or Megadeco Board Insulation: 25mm 16kg/m ³ glass mineral wool	43	4.5		88	120 90	Severe	44
RCS 505								
	Facing Inner Layer(s): 1x 12.5mm GTEC Fire Board Facing Outer Layer(s): 1x 12.5mm GTEC Fire or Megadeco Board Studs: GTEC CHS60B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: 1x 12.5mm GTEC Fire or Megadeco Board Insulation: –	54	5.4	_	101	120 120	Severe	43

GTEC HORIZONTAL SHAFTWALL SYSTEMS

See p267 for guidance

System Ref.	Component	System Weight (kg/m²)	Max Span (m)	Max Span Back-to- Back GTEC E Studs (m)	Nominal Thickness (mm)	Fire Perf. BS476-22 BS EN 1364-2 (mins)	Strength Duty Rating to BS 5234	Acoustic Perf. $\mathbf{R}_{w} \mathbf{dB}$ $(C_{tr} where applicable)$
RCS 904: HORIZ	ZONTAL							
	Facing Inner Layer(s): 1x 15mm GTEC Fire Board Facing Outer Layer(s): 1x 15mm GTEC Fire or Megadeco Board Studs: GTEC CHS90B CH-Studs at 600mm centres Core: 1x 25mm GTEC Fire Core Board Core Facing: – Insulation: –	47	3.0		123	60 60	60	47

GTEC ENCASEMENT SYSTEMS

See p268 for guidance

System Ref.	Component type	Component
RCE 001		
	Facing: Framing: Fire resistance columns: Fire resistance beams:	1x 12.5mm GTEC Fire or Megadeco Board GTEC Edge Channel & CB Clips at 600mm Centres 30 Mins up to 280 Hp/A factor 60 Mins up to 280 Hp/A Factor 30 Minutes up to 280 Hp/A factor 60 Minutes up to 115 Hp/A Factor
RCE 002		
	Facing: Framing: Fire resistance columns: Fire resistance beams:	1x 15mm GTEC Fire or Megadeco Board GTEC Edge Channel & CB Clips at 600mm Centres 90 Mins up to 115 Hp/A factor 60 Minutes up to 280 Hp/A factor 90 Minutes up to 50 Hp/A Factor
RCE 003		
	Facing: Inner Facing: Outer Framing: Fire resistance Columns Fire resistance Beams	1x 12.5mm GTEC Fire 1x 12.5mm GTEC Fire or Megadeco Board GTEC Edge Channel & CB Clips at 600mm Centres 90 Minutes up to 280 Hp/A factor 120 Minutes up to 140 Hp/A Factor 90 Minutes up to 280 Hp/A Factor
RCE 004		
	Facing: Framing: Fire resistance columns: Fire resistance beams:	1x 25mm GTEC Fire Core Board GTEC Edge Channel & CB Clips at 600mm Centres 120 Minutes up to 185 Hp/A factor 120 Minutes up to 85 Hp/A factor
RCE 005		
	Facing: Inner Facing: Outer Framing: Fire resistance columns: Fire resistance beams:	1x 15mm GTEC Fire 1x 15mm GTEC Fire or Megadeco Board GTEC Edge Channel & CB Clips at 600mm Centres 120 Minutes up to 235 Hp/A factor 120 Minutes up to 180 Hp/A Factor

See p251 for notes on alterations to fire protection configuration.
System Ref.	Component type	Component
RCE 006		
	Facing: Inner Facing: Outer Framing: Fire resistance columns: Fire resistance beams:	1x 25mm GTEC Fire Core Board 1x 15mm GTEC Fire or Megadeco Board GTEC Edge Channel & CB Clips at 600mm Centres 120 Minutes up to 280 Hp/A factor 180 Minutes up to 130 Hp/A Factor 120 Minutes up to 280 Hp/A Factor 180 Minutes up to 80 Hp/A Factor
RCE 007		
	Facing: Inner Facing: Outer Framing: Fire resistance columns: Fire resistance beams:	1x 25mm GTEC Fire Core Board 1x 25mm GTEC Fire Core Board GTEC Edge Channel & CB Clips at 600mm Centres 180 Minutes up to 280 Hp/A Factor 180 Minutes up to 280 Hp/A Factor

NOTE: All Encasement systems tested to BS476-21.

FIRE PROTECTION PERFORMANCE NOTES

- Performance values are for imperforate, jointed systems using Siniat GTEC components (metal studs and tracks, boards, metal accessories, screws and finishing systems) and specified insulation quilt material (type, thickness and density) and installed to Siniat specification and installation guides.
- Maximum heights depend on deflection criteria and applied air pressure.

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PARTITIONS

UNIVERSAL BEAMS WITH BOX ENCASEMENT

Size of	Mass per	Section fac	tor Hp/A m ⁻¹
steelwork (mm)	metre (ka)	3 sides	4 sides
914 x 419	388	45	55
511X 115	343	50	60
914 x 305	289	60	65
	253	65	75
	224	75	85
	201	80	95
838 x 292	226	70	80
	194	80	90
760 4 267	1/6	90	100
/62 X 26/	197	70	05
	147	95	110
686 x 254	170	75	90
	152	85	95
	140	90	105
	125	100	115
610 x 305	238	50	60
	179	70	80
610 x 220	149	80	95
010 X 229	140	80	95 105
	120 113	100	105
	101	110	130
533 x 210	122	85	95
	109	95	110
	101	100	115
	92	110	125
	82	120	140
457 x 191	98	90	105
	89	100	115
	82	105	125
	74	115	135
467 x 160	67	130	150
457 X 152	82 74	105	120
	67	125	145
	60	140	160
	52	160	180
406 x 178	74	105	125
	67	115	140
	60	130	155
	54	145	170
406 x 140	46	160	185
756 171	39	190	220
א סכ <i>ב</i>	0/ 57	105	145
	51	135	165
	45	155	185
356 x 127	39	170	195
	33	195	225
305 x 165	54	115	140
	46	130	160
	40	150	180
305 x 127	48	125	145
	42	140	160
	37	155	180
305 x 102	33	175	200
	28	200	225
054 415	25	225	260
254 x 146	37	140	170
254 × 102	51	170	200
204 X 102	28	10	200
	22	215	250
203 x 133	30	145	180
202 / 122	25	165	210
203 x 102	23	175	210
172 x 102	19	190	230
152 x 89	16	190	235
127 x 76	13	195	240



Size of	Mass per	Section fac	tor Hp/A m ⁻¹
steelwork (mm)	metre (kg)	3 sides	4 sides
356 x 406	634	15	20
	551	20	25
	467	20	30
	393	25	35
	340	30	35
	287	30	45
	235	40	50
	202	45	60
356 x 368	177	50	65
	153	55	75
	129	65	90
305 x 305	283	30	40
	240	35	45
	198	40	50
	158	50	65
	137	55	70
	118	60	85
	97	75	100
254 x 254	167	40	50
	132	50	65
	107	60	75
	89	70	90
	73	80	110
203 x 203	86	60	80
	71	70	95
	60	80	110
	52	95	125
	46	105	140
152 x 152	37	100	135
	30	120	160
	23	155	205

UNIVERSAL COLUMNS WITH BOX ENCASEMENT



RCE 006

RCE 005

230

RCE 007

280

200

STEEL JOISTS WITH BOX ENCASEMENT

Size of steelwork (mm)	Mass per metre (kg)	Section fact 3 sides	tor Hp/A m ⁻¹ 4 sides
254 x 203	81.85	70	90
254 x 114	37.20	130	155
203 x 152	52.09	85	105
152 x 127	37.20	90	120
127 x 114	29.76	100	130
127 x 114	26.79	110	140
114 x 114	26.79	100	135
102 x 102	23.07	105	140
89 x 89	19.35	105	145
76 x 76	12.65	140	185

EXAMPLE OF USE

Beam = 610mm x 305mm x 179kg/m Exposed on four sides Hp/A = 80m⁻¹ Choice of systems Up to 60mins = RCE001 Up to 90mins = RCE003 Up to 120mins = RCE004 Up to 180mins = RCE007

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GTEC SHAFTWALL SYSTEMS

The GTEC Shaftwall Fire Protection system protects shafts and voids in multi-storey buildings with a rapid installation system preventing continuous routes for the spread of fire.

The system uses a non-symmetrical board assembly for full installation from one side of the shaft, allowing construction in tight spaces. The frame features friction fit channels to receive GTEC Fire Core Board and a fixing flange for the installation of GTEC Fire, Megadeco or Universal Boards ready to finish on the room side. The shaft side can also be decoratively finished using GTEC Shaftwall Stairwell systems, this is commonly used in stairwells.

GTEC Shaftwall Fire Protection can also be used horizontally to protect the underside of ductwork or provide a 'lid' to a shaft. In horizontal applications, further boards may be needed to achieve fire performances. Refer to the System Performance Tables on pages 244 to 249 for full details.

WHERE TO USE:

 GTEC Shaftwall Systems are used to protect voids in commercial or public multi-storey buildings and is suitable for most construction types.

FEATURES	BENEFITS
System designed to be erected from one side only	No scaffolding required
Offers fire protection from both directions	Provides up to 120 minutes fire performance
Lightweight friction fit framing system	Fast to install with less material costs
Specialised components designed as a system	Reliable and easy to specify
Framing includes cavity	Allows space for services to run
High strength frame	Resists pressure changes likely in deep shafts and voids
Fully sealed	Prevents whistling, dirt accumulation and ensures fire performance

REFERENCE



Note: During 2017, 25mm Fire Core Board products will be replaced with 19mm Fire Core Board. The Drywall Manual will be updated during the year to reflect these changes. For further information please contact Technical Services.

SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	GTEC Fire Core Board High strength fire and moisture resistant board for use in steel fire encasement	See performance tables, p250-253
	GTEC Fire Board A fire resistant plasterboard	See performance tables, p250-253
FRAME		
	GTEC CH Stud Metal profile for vertical frame elements	CH60/B, CHS90/B, CHS146/B
	GTEC E Stud Metal profile used for vertical frame element at junctions and end studs	ES60/B, ES90/B, ES146/B
	GTEC J Track Metal profile for head and base channel	JT62/B, JT92/B, JT148/B
	GTEC U Track Deep Flange Deep flange metal profile for deflection heads	UDT62/B, UDT92/B, UDT148/B
	GTEC U Track Extra Deep Flange Extra deep flange metal profile for deflection heads	UXT92/W, UXT148/W
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W
INSULATION		
	Mineral wool insulation Provide fire resistance	See performance table supplied by others
FIX		
1/1 × 1	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334

System Component	System primary use	Product Reference
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances	n/a
BTRC C	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
Brazz Devel Sector	GTEC Sealers To seal plasterboard prior to decoration	n/a

SYSTEM GUIDANCE

FRAME AND SHAFT-SIDE BOARDING

FP-SH-101S-Head



FP-SH-103M-Stud reinforcement (back-to-back E-studs)



FP-SH-102S-Base



FP-SH-201P-Partition assembly – start



FP-SH-202P-Partition assembly - end



REFERENCE





- Select compatible size (e.g. 90mm stud and 92mm track) GTEC CH Stud, GTEC E Stud and GTEC J Track framing elements to suit system performance.
- Bead of GTEC Intumescent Sealant to be applied at junction of all metal framing with structure, at junction of all metal framing with GTEC Fire Core Board, and at all other locations specified in drawings.
- GTEC J Track at head and base to be fixed flat to structure, long leg of track to shaft side, using appropriate fixings at maximum 300mm centres.
- First GTEC E Stud, 10mm less than floor to ceiling height, to be fixed abutting structure using appropriate fixings at maximum 300mm centres. Stud to be fixed to head and base track with appropriate GTEC Drywall Screws (see screw selector, p334-335). Final GTEC E Stud to be installed with final GTEC Fire Core Board.
- Protect base track from moisture with damp proof membrane when situated on newly laid concrete floors.
- GTEC Fire Core Board to be 25mm short of floor to ceiling height with 25mm gap at top of Shaftwall frame.

INSULATION

Insulation to be of type and thickness to achieve performance and installed in a continuous layer between frames or studs to suit required performance. GTEC Fire Core Board to be installed before intermediate stud with construction proceeding progressively, alternating in sequence between board and GTEC CH Stud.

FP-SH-204S-Overheight shaftwalls reinforcement – option 2

- All GTEC CH Studs to be 10mm shorter than floor to ceiling height except in case of deflection requirement. Each GTEC CH Stud to be firmly fitted to board and friction fitted into track.
- 100mm deep strip of GTEC Fire Core Board spanning between studs to be fixed through main GTEC Fire Core Board to GTEC J Track to form fire stop at head.
- Where wall height exceeds available GTEC CH Stud length, lengths of GTEC E Stud to be spliced together, back-to-back, ensuring overlaps of 600mm for heights below 4m and 1000mm for heights above 4m.
- Where partition exceeds 3m height, horizontal joints to be at alternating maximum 1/3 or 2/3 height with reinforcement from GTEC CH Stud noggings or 100mm deep strips of GTEC Fire Core Board.
- Studs and tracks to be clean of fire protective coatings which may have been applied to main structure.

GENERAL BOARDING

- GTEC Fire Core Board to be used as shaft-side boarding (see p299).
- GTEC Fire Board, Megadeco or Universal Board, 5mm short of floor to ceiling height, to be used as room-side boarding.
- Select GTEC Boards by consulting System Performance Tables (p244-251) to achieve required performance.
- All layers of boarding to be mechanically fixed to studs at 300mm centres using appropriate GTEC Drywall Screws (see screw selector, p334-335).
- Board edges to be centred over studs.
- **MOVEMENT CONTROL JOINTS**

FP-SH-301P-Movement control joint



- Form movement control joints at maximum 10m intervals in the partition run.
- Form movement control joints where the partition crosses a structural movement joint.

 Stagger all board joints between layers and stagger screws by 100mm compared to adjacent boards and layers.

Over-height single layer boarding:

Where partition height exceeds board height fix boards to continuous band of GTEC Flat Strap FS90/W or GTEC MFIX behind all horizontal joints to maintain fire integrity.

Over-height multiple layer boarding:

Where partition height exceeds board height for double or multiple layer boarding fix outer layer of boards to continuous band of GTEC Flat Strap FS50/RX behind all horizontal joints.

 Fix GTEC Movement Control Joint, butted end-to-end, to board with sheradised or galvanised staples.

OPENINGS

FP-SH-401P-Door jamb



- Form openings following guidance in Construction Detail Drawings to suit duct penetration or door configuration.
- For doors, reinforce head-to-jamb junction down each jamb stud by cutting and folding head track, continue track down full length of jamb and reinforce with timber as described in Construction Detail Drawings.
- Jamb studs to be configured to ensure continuity of GTEC Fire Core Board to inside of opening.
- Jamb studs to be fixed to track with appropriate GTEC Drywall Screws (see screw selector, p334-335).

CORNERS AND JUNCTIONS

FP-SH-501P-Internal corner





FP-SH-503P-T-junction – room side









FP-SH-502P-External corner

FP-SH-504P-T-junction - shaftside



- Abutting partitions to coincide with Shaftwall stud; additional intermediate 'pick-up' GTEC C Stud; or GTEC Flat Strap at 600mm vertical centres.
- Connect studs through plasterboards at corners and junctions.
- Ensure continuity of GTEC Fire Core Board at corners.
- See Construction Details Drawings for further guidance on arrangement and fixing.

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PENETRATIONS

FP-SH-701M-Duct penetration isometric









PENETRATIONS

- M&E runs and other services to be pre-planned to minimise or eliminate penetrations through rated Shaftwall systems.
- Continuity of GTEC Fire Core Board to be maintained around penetration openings.
- Any penetrations must be fully sealed with GTEC Intumescent Acoustic Sealant or other fire resisting material as specified in Construction Detail Drawings.

FIXTURES

- See fixture guidance in GTEC C Stud Partition section, p50, for further guidance.
- LaDura is recommended as pattress to enhance mechanical resistance of the fixing.

FINISHING

- All room-side board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

- Ductwork to be independently supported and not supported by the Shaftwall system.
- Protect all electrical cables in cavity with conduit.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity must be maintained to achieve rated performances.

STAIRWELL SYSTEMS

FP-SH-010P-Stairwelll system



Where finishing of both sides of Shaftwall system is required one decorative board may be transferred to shaft side in accordance with system requirements, see performance tables p244.

FP-SH-011P-Stairwell perimeter detail



 Transferred board to be screw fixed at maximum 300mm centres to exposed flanges of GTEC CH Stud, GTEC E Stud and track.

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DUCT PROTECTION SYSTEMS

FP-SH-021S-Duct protection shaftwall – 90 minutes



- Horizontal runs of GTEC Shaftwall systems to protect underside of duct work require additional material and configurations of frame, see performance tables p244-251 for requirements.
- GTEC Shaftwall duct protection is not designed to support ductwork or any other loads.

HORIZONTAL SYSTEMS

FP-SH-031S-Horizontal shaftwall



- GTEC Horizontal Shaftwall to be fixed to structure using appropriate fixings as recommended by fixing manufacturer to support self-weight of Shaftwall.
- Horizontal systems are not designed to support any additional loads.

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GTEC ENCASEMENT SYSTEMS

The GTEC Encasement Fire Protection system provides high levels of fire resistance to structural I-section columns and beams, delaying the loss of strength in steel which occurs at temperatures over 550°C.

The system uses push-fit GTEC CB Clips to secure GTEC Edge Channel to the steel. GTEC Fire Core Boards, Fire Boards, and other high performance boards as detailed in the performance tables, are fixed to the edge channel to protect columns and beams. Excellent fire performance is achieved by holding the boards off the columns on a strong metal frame.

WHERE TO USE:

The system is used in commercial multi-storey construction to ensure structural safety during fire. The range of impact resistant boards compatible with the system enables use in high traffic areas.

FEATURES	BENEFITS
Uses GTEC Fire Board	Economical and effective
Uses GTEC Fire Core Board	Fewer board layers required
Fully tested	Allows use of Hp/A factors, giving performance to a range of column and beam dimensions
Fully dry installation	Efficient to install
Friction fit frame installation	Efficient to install
	Allows differential movement during fire
Simple frame design	Requires no specialist equipment
Plasterboard finish	Flat, easy to decorate, surface. Suitable for use with GTEC Partitions, Ceilings and Linings



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SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
BOARDS		
	GTEC Fire Core Board High strength fire and moisture resistant board for use in steel fire encasement	See performance tables, p250-253
	GTEC Fire Board A fire resistant plasterboard	See performance tables, p250-253
FRAME		
	GTEC CB Clip Steel clip for connecting channels to structural steelwork	CB17, CB27, CB40
	GTEC Edge Channel Steel channel to provide metal frame and bearing surface for plasterboard	MFCE26
	GTEC Metal Angle Multi-purpose galvanised metal section	MFC2525, MFC2550, MFC2330
\checkmark	GTEC Fixing Channel Provide support for plasterboard joints and fixtures	MFIX
	GTEC Flat Strap Provide support for plasterboard joints and fixtures	FS50/RX, FS90/W
FIX		
11	GTEC Drywall Screws (as appropriate) For connecting plasterboard and metal components	See screw selector, p334
FINISHING		
	GTEC Corner and Edge beads Corner and edge reinforcement	n/a
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds	n/a
	GTEC Intumescent Acoustic Sealant Perimeter sealing to restrict smoke, sound and fire penetration to achieve quoted performances	n/a
Constant	GTEC Compounds To finish joints between boards and bed corner beads prior to decorating. Ensures system performance	See compounds guidance, p280
erze System Sector	GTEC Sealers To seal plasterboard prior to decoration	n/a

SYSTEM GUIDANCE

FP-EN-101P-Column encasement – single layer



FP-EN-102P-Column encasement – double layer



FP-EN-103S-Single boarded beam encasement



FRAME

FP-EN-104S-Double boarded beam encasement



 Select GTEC CB Clips to suit flange thickness of steel to be protected:

GTEC CB Clip	To fit flange size:
CB 17	7-17mm
CB 27	17-27mm
CB 40	27-40mm

- GTEC CB Clips to be friction fitted to flanges of steel at maximum 600mm centres beginning at 150mm from both ends of steel.
- GTEC Edge Channel to be friction fitted into GTEC CB Clips along length of steel.
- Where steel abuts structure GTEC Metal Angle to be fixed to structure or shot fired to inside of steel flange with appropriate fixings, and following guidance of steel designer, to provide substrate for plasterboard.

BOARDING

FP-EN-201M-300-600mm beam board reinforcement



Over 600mm depth

FP-EN-202M-Over 600mm beam board reinforcement

- Select GTEC Boards by consulting System Performance Tables (p250-251) and Hp/A tables (p252-253) to achieve required performance.
- GTEC Board to be fixed to GTEC Edge Channel, GTEC Metal Angle and any reinforcement at maximum 300mm centres using appropriate GTEC Drywall Screws (see screw selector p334-335). Fixing positions to be staggered on next boarding layer. Minimum 2 screws per board edge.
- Where flange/web dimension exceeds 300mm all plasterboard joints along beam/column to be reinforced with GTEC Flat Strap or GTEC MFIX Channel.
- Where flange/web dimension exceeds 600mm provide reinforcement to board with GTEC Flat Strap or GTEC MFIX fixed to GTEC Edge Channel at maximum 600mm centres and at board joints.

CORNERS AND JUNCTIONS

FP-EN-501P-Junct. partition to column - Opt.1 (non-acoustic)



FP-EN-502P-Junct. partition to column - Opt.2 (acoustic)



CORNERS AND JUNCTIONS continued

FP-EN-503S-Column in masonry wall



FP-EN-504S-Junction of partition along beam (non-acoustic)



Provide GTEC Flat Strap as reinforcement for abutting partitions at 600mm centres behind final layer of encasement board. Studs or tracks to be fixed through to reinforcement.

HEAD DEFLECTION

GTEC Encasement systems are designed to move with beam deflection. Partitions meeting beams liable to deflection to be detailed according to guidance in GTEC C Stud system guidance (see p61).

PENETRATIONS

 Penetrations must not be made through GTEC Encasement systems.

FIXTURES

 Fixtures to be supported by structure and not supported by GTEC Encasement systems.

FINISHING

- All corners to be reinforced with GTEC Corner 90.
- All board joints to be taped, jointed or finished according to guidance in Finishing section (p276-291) to achieve system performances.
- GTEC Finish materials appropriate to board type to be used.

SYSTEM CONTINUITY

- Bead of GTEC Intumescent Acoustic Sealant to be applied to perimeter of all runs and in all other locations specified in Construction Detail Drawings.
- GTEC Intumescent Acoustic Sealant to seal all other acoustic or air paths to prevent fire/ smoke spread and acoustic transmission.
- Full, imperforate system continuity must be maintained to achieve rated performances.

PARTITIONS



FINISHING

GTEC Taping and Jointing provides a finish to joints between GTEC boards creating a continuous, fire resistant and easy to decorate surface. Skimming can achieve similar results but is a more labour and time intensive method. Tiling GTEC moisture and wet area GTEC boards can achieve exceptionally high levels of water resistance.

GTEC Cove is a decorative gypsum element used to finish the junction between partition and ceiling.

GTEC Taping and Jointing	278
Alternative finishing methods	284
GTEC Cove	288

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REFERENCE

GTEC TAPING AND JOINTING

GTEC drywall systems require taping and jointing to complete the wall surface, reinforce joints to prevent cracking, and ensure fire and sound performances are achieved.

GTEC Taping and Jointing products use limited combustibility, gypsum and limestone based compounds which secure the fire rating of the system. These are reinforced with paper tape or corner beads to create a smooth, durable surface, ready for decoration. Two and three stage processes are available using the correct GTEC Finish products to provide options on site and different setting times.

Water resistant compounds and finishing accessories are available for Aqua Board. The GTEC Deco compound range complements the use of Megadeco for direct decoration.

WHERE TO USE:

Taping and jointing are suitable for large surface areas where speed and ease of application can greatly reduce installation cost and drying time.

FEATURES	BENEFITS
Applied to low surface areas	Quicker than a full plaster skim with less drying out time
Can be used with automatic taping tools	Flexible, high speed application
Can be hand applied	Versatile enough to suit any job
Wide product range	Suitable for different applications and needs
Gypsum/limestone finish	Excellent finish quality with limited combustibility
Two and three stage processes	Provides a range of speed and product options

SYSTEM COMPONENT TABLE

System Component	System primary use
BOARDS	
	All GTEC Boards (see specialist compounds for Aqua & Megadeco) Provides wall surface suitable for finishing.
FINISHING	
Joint Filer Xtra	GTEC Joint Filler Xtra Gypsum based joint compound for filling joints in plasterboards, 90 minute set time
GTEC Josef Commen Xora	GTEC Joint Cement Xtra Air-drying joint cement for finishing joints
	GTEC Easy Finish Extra All purpose compound suitable for all stages of the jointing process with 90 minute set time
erec Snartmix Xtra	GTEC Smartmix Ready mixed all purpose jointing compound suitable for all stages of the jointing process
Acuardia Acuardia Acuardia	GTEC Aquamix Ready mixed all purpose jointing compound for use with GTEC Aqua system in severe wet applications
GTEC Deco Filer	GTEC Deco Filler An all purpose gypsum based joint filler for use with Megadeco. 90 minute set time
erec: energy of the second sec	GTEC Deco Joint Cement An air drying ready mixed compound for finishing joints with Megadeco
Deco Machine	GTEC Deco Machine An air drying ready mixed compound for use with automatic taping tools to finish joints with Megadeco
-	GTEC Joint Tape Joint reinforcement in conjunction with GTEC Jointing Compounds
	GTEC Aquastrip Mesh tape for use with GTEC Aqua system to protect exposed drylining perimeters for wet applications
erer Contraction	GTEC Sealers To seal plasterboard prior to decoration
	GTEC Corner and Edge beads Corner and edge reinforcement

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SYSTEM GUIDANCE

COMPOUND SELECTION

Joint compound selection is largely a matter of site preference, depending on weather conditions, time and equipment. GTEC Compounds can be combined in numerous permutations each offering a high quality surface finish. However, Aqua Board and Megadeco require specific compounds to suit their unique facers.

Taping and jointing is conducted in three main stages: Bedding; Second Coat; and Finishing Coat.

TWO STAGE PROCESS THREE STAGE PROCESS 1 BEDDING Tape or bead is bedded into the compound and taper filled out 1 SECOND COAT The taper is re-filled with compound where required 2 4 FINISHING COAT Final compound layer is applied and sanded for a smooth finish 3

COMPOUND TYPES

- All compounds are suitable for Bedding and Second Coat, however, setting and hybrid compounds reduce overall time required.
- Setting and hybrid compounds must not be used over air-drying compounds.
- Only air-drying or hybrid compounds are suitable for the final finishing coat.
- Air-drying and hybrid compounds are low shrinkage. Where low shrinkage compounds have been used in Bedding layer the Second Coat may not be required.
- The drying time of air-drying compounds is dependent on climatic conditions and layer thickness. Drying takes approximately 24 hours but may be extended by adverse conditions.

GTEC Compound	Format	Туре	Compatible Boards	Machine Use	Shrinkage	Setting Time
Joint Filler Xtra	Powder	Setting	All (except Megadeco)	No	Standard	90 mins
Joint Cement Xtra	Powder	Air-drying		Yes	Low	n/a
Smartmix Xtra	Readymix	Air-drying	All (except Megadeco)	Yes	Low	n/a
Easy Finish Xtra	Powder	Hybrid	All (except Megadeco)	No	Low	90 mins
Aquamix	Readymix	Air-drying	Aqua Board	Yes	Standard	n/a
Deco Filler	Powder	Setting	Megadeco only	No	Standard	90 mins
Deco Joint Cement	Readymix	Air-drying		No	Low	n/a

SUBSTRATE

- Plasterboard to be tapered edged to allow GTEC Joint Tape to sit below finished surface for best finish. Square edged plasterboard may also be jointed following guidance in drawings.
- Board surfaces to be dry, clean, protected from weather, secure and evenly fixed.
- Correct screw fixings to be used with screw heads just below surface of board.
- Gaps over 3mm to be filled with GTEC Joint Filler Xtra or GTEC Easy Finish Xtra.
- Taping and jointing should not be carried out at extreme temperatures (greater than 40°C or less than 5°C). Do not tape and joint on frozen backgrounds.

TAPING & JOINTING

FN-TJ-101&102M – Tapered edge



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FN-TJ-103&104M - Square or cut edge



FN-TJ-105 & 106M – Internal corner



FN-TJ-107&108M – External corner



- Screws to be spotted with appropriate jointing compound.
- Compound to be applied in nominal 1mm layers. Thicker layers will extend drying out time.
- GTEC Joint Tape cut to length to be pressed into bedding compound without trapping air bubbles, bedding layer of compound to be flush with plasterboard face. Pound to be flush with plasterboard face.
- Second coat of jointing compound if required to be applied over dry joint, feathered out 50-60mm beyond the edge of first coat. Second coat to be set hard or dry prior to third stage.
- Finishing coat of compound feathered out 50-60mm beyond second coat. Finished, dry joint to be sanded to smooth finish for sealing and decoration.

Square edge joints only:

 Joint width to be wider to reduce visible crowning.

External corners only:

 GTEC Flex Tape to be applied in place of GTEC Joint Tape as reinforcement.

Machine application:

- Air-drying compounds only to be used in automatic taping machines.
- Setting compounds such as GTEC Joint Filler or GTEC Easy Finish Xtra are not suitable for automatic taping machines.

High and Severe Moisture Exposure:

- GTEC Aquamix compound to be used in high and severe moisture/humidity exposure areas.
- In areas of severe moisture exposure Aqua Board to be coated with two layers of GTEC Drywall Sealer.

DECORATION

- Surfaces and joints to be dry prior to finishing.
- Joint to be sanded smooth for decoration.
 Surfaces to be dust free prior to sealing.
- Seal with GTEC Drywall Sealer prior to paint application to improve whiteness and paint coverage. Megadeco Boards and GTEC Deco joints together do not require sealing.
- Paint to be applied in accordance with manufacturer's instructions to dry and dust free surface.

REFERENCE

SKIMMING

A traditional skimming plaster finish provides a surface ready to be decorated and is an alternative to GTEC Taping and Jointing in certain applications. It is particularly suitable where the quality of board installation is poor, as it will cover surface imperfections, and where drying out time is not important.

Most GTEC Boards are designed to accept skim plasters.

SYSTEM GUIDANCE

APPLICATION

- Skim plaster can be applied by hand or machine.
- Refer to skim plaster manufacturer's instructions for application details.
- Moisture resistant GTEC Boards (GTEC MR range and LaDura) to be pre-treated with bonding agent by others. When using PVAC, first coat diluted to 5:1, second coat diluted to 3:1 and skimmed while tacky.
- Board to be clean of dust, dirt and grease, and sufficiently true to allow the specified thickness of plaster.

FINISHING

- Skim plaster to be allowed to dry out thoroughly before decoration or tiling is started.
- Paint manufacturer's instructions should be followed for decorating to new plaster.

GTEC Board	Suitable for Skim	Pre-treatment
Standard Board	Yes	None
Plank	Yes	None
Contour	Yes	None
Base Board	Yes	None
Vapour Board	Yes	None
Vapour Base Board	Yes	None
Moisture Board	Yes	Bonding agent
Fire Board	Yes	None
Fire MR Board	Yes	Bonding agent
Fire V Board	Yes	None
Fire Core Board	Yes	Bonding agent
E Board	Yes	None
dB Board	Yes	None
Acoustic Homespan	Yes	None
Acoustic Homespan MR	Yes	Bonding agent
Megadeco	No	n/a
Universal Board	Yes	None
Thermal	Yes	None
Thermal XP	Yes	None
Thermal K	Yes	None
LaDura	Yes	Bonding agent
Aqua Board	No	n/a

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TILING

Internal dry-lined surfaces are suitable for tiling in a wide variety of applications in both domestic and commercial applications including showers, toilets and bathrooms as well as permanently wet areas such as swimming pools.

Ceramic tiling can be applied to Aqua, LaDura and GTEC Moisture Boards for use in wet, moist or humid areas. Tiling can be applied to any board if the area is generally dry, such as decorative tiles in a corridor.

Vertical frame centres for linings and partitions to be determined by system height and tile weight.

Advice in the subsequent section is for low, medium, high and severe humidity applications.

	Normal conditions	Low to Medium Humidity	High to Severe Humidity
GTEC Board	General internal applications	Washrooms, toilets, kitchens, bathrooms	Swimming pool, spa, wet rooms, public showers
Aqua Board	✓	✓	1
Moisture Board	✓	✓	×
LaDura	✓	✓	×
All other boards	1	X	x





FN-TL-002M 'Severe Humidity'

TILING
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SYSTEM GUIDANCE

SUBSTRATE

- All surfaces to be clean and dust free with all loose material removed.
- Where primer is recommended follow manufacturer's instructions.

BONDING

- Tiles to be fixed in accordance with BS 5385.
- Ceramic, glazed and stone tiles to be fixed directly to board using waterproof adhesive which is suitable for plasterboard substrates.
- Tiles not to exceed maximum weight per metre depending on board type.
- Maximum weight of tiles by type of board at 400mm stud centres:

	Maximum weight of tiles*
GTEC Moisture Board	32kg/m²
LaDura Board	32kg/m²
Aqua Board	50kg/m²

*for greater tile weight please contact Technical Services for recommendations

BOARDING

- Untiled areas to be taped and jointed, see GTEC Taping and Jointing section, p278.
- Taper edge boards to be used to enable formation of flush joints in untiled areas and to ensure flat substrate for tiling.
- Drylining systems using GTEC Universal Bonding Compound in their construction to be allowed 10 days to achieve full strength before tiling.

FINISHING

- For concealed joints only GTEC Joint Tape may be bedded with waterproof, ceramic tile adhesive. Untiled areas to be taped and jointed using GTEC Aquamix.
- In severe humidity areas tiles to be finished with suitable waterproof tile grout and sealed if required.
- Details at junctions, corners and perimeters to be designed to prevent moisture penetration.
- Seal around pipes, baths, shower fittings, openings and outlets with waterproof silicone sealant.
- In areas of severe humidity GTEC Drywall Sealer with GTEC Aquastrip to be used to protect base of partition/lining.

GTEC COVE

GTEC Cove provides a decorative feature to the ceiling and wall junction, masking unsightly cracks and improving the acoustic mass and sealing along the junction.

GTEC Cove is made from gypsum encased in a profiled and strong paper liner, available in two sizes, 90 and 120mm. It is bonded to the wall and ceiling using GTEC Cove Adhesive and it is easy to work with, rigid and provides an excellent surface for decoration.

WHERE TO USE:

 Used in domestic new build or renovation projects to complement the wall and ceiling junction.

FEATURES	BENEFITS
Flat rear profile	Easy to fix
Decorative shape	Distinctive feature
Gypsum product with paper finish	Easy to decorate and lightweight



SYSTEM COMPONENT TABLE

System Component	System primary use	Product Reference
COVE		
The Distance of the local distance of the lo	GTEC Cove Gypsum plaster moulding used to finish the junction of walls and ceilings	n/a
FIX		
GTEC Cove Adhesive	GTEC Cove Adhesive Gypsum based adhesive, 40 minute setting time for fast fixing of cove	n/a
FINISH		
OTEC Seler Universal Sealer Seler Seler	GTEC Universal Sealer Use prior to painting to improve brightness and coverage	n/a

COVING

FN-CV-101S - Cove 90 and 120



- Substrate to be dry, rigid and dust free, with any wallpaper, whitewash or loose decoration removed.
- Surfaces which have been previously painted to be abraded and coated bonding agent.
- Nails to be installed below cove location and at 1500mm centres to act as temporary support while cove adhesive sets.
- GTEC Cove Adhesive to be applied in 3mm thick and 10mm wide beads along full length of each edge of GTEC Cove.
- GTEC Cove Adhesive to fill any gaps between cove and wall or ceiling.
- With uneven ceilings it may be necessary to permanently nail cove 25mm from one edge. Nail heads should be countersunk and covered with GTEC Cove Adhesive.
- Ensure temperature does not fall below 5°C.

FINISHING

- Coat of GTEC Universal Sealer to be applied to enhance paint coverage and finish.
- Plasterboard strips may be added between coving and ceiling to add extra stepped features. Visible edges of plasterboard strips to be bound edges for decoration.

SOUTHMEAD HOSPITAL BRISTOL, UK

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Sector: Healthcare Project Value: £450 million Client: North Bristol NHS Trust Architect: BDP Main Contractor: Carillion Sub Contractor: BR Hodgson

Siniat Innovations: Aqua Board Megadeco

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REFERENCE

Product Reference

GTEC Board	294
GTEC Frame	308
GTEC Fix	321
GTEC Finish	324
Profile Guide	332
Screw Selection Guide	334
Sustainability	336
Health and Safety	341
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PARTITIONS

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GTEC BOARD

GTEC Standard Board



A simple, lightweight and cost-effective board.

Standards: BS EN 520 Type A

Composition: Aerated calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers bonded with starch and PVA edge glue.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Standard Board can be jointed and finished with the GTEC Joining Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking Loads (acc. BS EN 520)	
Tapered Edge (TE)						Long.	Trans.
9.5	1.8 to 2.7	900, 1200	5.95	0.050m²K/W	0.19	≥ 400N	≥ 160N
12.5	1.8 to 3.0	900, 1200	8.0	0.066m²K/W	0.19	≥ 550N	≥ 210N
15.0	1.8 to 3.0	900, 1200	10.0	0.079m²K/W	0.19	≥ 650N	≥ 250N
Square Edge (SE)							
9.5	1.8 to 2.4	900, 1200	5.95	0.050m²K/W	0.19	≥ 400N	≥ 160N
12.5	1.8 to 3.0	900, 1200	8.0	0.066m²K/W	0.19	≥ 550N	≥ 210N
15	2.4	900, 1200	10.0	0.079m²K/W	0.19	≥ 650N	≥ 250N

GTEC Plank



A 19mm version of GTEC Standard Board for use in flooring applications.

Standards: BS EN 520 Type A

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Plank Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
19	2.4	600	14	0.076m²K/W	λ ^R = 0.19	≥ 1000N	≥ 500N
Square Edge (SE)							
19	2.4	600	14	0.076m²K/W	λ ^R = 0.19	≥ 1000N	≥ 500N

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GTEC Contour Board



A strong, light-weight and flexible 6mm board for creating curved walls and ceilings.

Standards: BS EN 520 type D

Composition: Aerated calcium sulphate di-hydrate with liners made from recycled waste paper. The core is high density gypsum reinforced with chopped strands of glass fibre.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Contour Board can be jointed and finished with GTEC Jointing Systems.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

n) (mi	nm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking Loads (acc. BS EN 520)	
					Long.	Trans.
4 120	200	5.5	0.024m²K/W	λ ^R = 0.25	> 258	> 100,8
ı) 4	(n 12	(mm) 1200	(mm) (kg/m²) 1200 5.5	(mm) (kg/m²) (R) 1200 5.5 0.024m²K/W	(mm)(kg/m²)(R)Conductivity (W/mk)12005.5 $0.024m^2 K/W$ $\lambda^R = 0.25$	(mm) (kg/m²) (R) Conductivity (W/mk) (acc. BS EN 1200 5.5 $0.024m^2 K/W$ $\lambda^R = 0.25$ > 258

GTEC Base Board



A 4 foot long ceiling board ideal for skim plastering. Sold in complete pallets only.

Standards: BS EN 520 Type P

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Base Board is designed for skim finishing

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Square Edge (SE)						Long.	Trans.
9.5	1.22	900	5.95	0.050m²K/W	$\lambda^{R} = 0.25$	≥ 180	≥ 125

GTEC BOARD continued

GTEC Vapour Board



GTEC Standard Board with an additional laminated vapour control layer.

Standards: BS EN 520 Type A and BS EN 14190

Composition: GTEC Vapour Board has the same physical properties as GTEC Standard Board but has a silver metallised polyester film back liner to enhance vapour resistance.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Vapour Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking Loads (acc. BS EN 520)	
Tapered Edge (TE)						Long.	Trans.
9.5	1.8 to 2.7	900, 1200	5.95	0.050m²K/W	0.19 W/mK	≥ 400N	≥ 160N
12.5	1.8 to 3.0	900, 1200	8.0	0.066m²K/W	0.19 W/mK	≥ 550N	≥ 210N
15.0	1.8 to 3.0	900, 1200	10.0	0.079m²K/W	0.19 W/mK	≥ 650N	≥ 250N
Square Edge (SE)							
9.5	1.8 to 2.4	900, 1200	5.95	0.050m²K/W	0.19 W/mK	≥ 400N	≥ 160N
12.5	1.8 to 3.0	900, 1200	8.0	0.066m²K/W	0.19 W/mK	≥ 550N	≥ 210N
15	2.4	900, 1200	10.0	0.079m²K/W	0.19 W/mK	≥ 650N	≥ 250N

GTEC Vapour Base Board



GTEC Base Board with an additional laminated vapour control layer.

Standards: BS EN 520 Type P and BS EN 14190

Composition: GTEC Vapour Base Board has the same physical properties as GTEC Base Board but has a silver metallised polyester film back liner to enhance vapour resistance.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Vapour Base Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Square Edge (TE)						Long.	Trans.
9.5	1.22	900	5.95	0.050m²K/W	$\lambda^{R} = 0.25$	≥ 180	≥ 125

GTEC Moisture Board



A board with water resistant additives designed for use in humid areas.

Standards: BS EN 520 Type H2

Composition: Aerated Calcium sulphate di-hydrate with fillers enclosed inside a green paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Moisture Board can be jointed and finished with GTEC jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating and treating with PVA bonding agent before plastering.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	.oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4 to 3.0	1200	9	0.050m²K/W	λ ^R = 0.25	≥ 550N	≥ 210N
15.0	2.4	1200	11.85	0.060m²K/W	λ ^R = 0.25	≥ 650N	≥ 250N

GTEC Fire Board



Provides superior fire resistance.

Standards: BS EN 520 Types D and F

Composition: Aerated Calcium sulphate di-hydrate with fire-resisting fillers and fibres enclosed inside a tough pink paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Fire Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking Loads (acc. BS EN 520)	
Tapered Edge (TE)						Long.	Trans.
12.5	1.8 to 3.0	900, 1200	10.2	0.050m²K/W	$\lambda^{R} = 0.24$	≥ 725N	≥ 300N
15	1.8 to 3.0	900, 1200	12.3	0.060m²K/W	$\lambda^{R} = 0.24$	≥ 870N	≥ 360N
Square Edge (SE)							
12.5	1.8 to 2.4	900, 1200	10.2	0.050m²K/W	λ ^R = 0.25	≥ 725N	≥ 300N

FINISHING

GTEC BOARD continued

GTEC Fire MR Board



Provides both fire and moisture resistance.

Standards: BS EN 520 Types D, F and H2

Composition: Aerated Calcium sulphate di-hydrate with fire-resisting fillers and fibres enclosed inside a tough pink paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Fire MR Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating. Requires PVA treatment prior to skimming.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4	1200	10.3	0.05m²K/W	$\lambda^{R} = 0.25$	≥ 550N	≥ 210N
15	2.4 to 3.0	1200	12.5	0.06m²K/W		≥ 650N	≥ 250N

GTEC Fire V Board



GTEC Fire Board with an additional laminated vapour control.

Standards: BS EN 520 Types D and F and BS EN 14190

Composition: GTEC Fire Vapour Board has same physical properties as GTEC Fire Board but has a silver metallised polyester film back liner to enhance vapour resistance

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Fire V Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	.oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	1.8 to 3.0	900, 1200	10.2	0.050m²K/W	λ ^R = 0.25	≥ 725N	≥ 300N
15	1.8 to 3.0	900, 1200	12.3	0.060m²K/W	λ ^R = 0.25	≥ 870N	≥ 360N

GTEC Fire Core Board



High strength fire resistant board for use in GTEC Shaftwall systems, steelwork fire encasement.

Standards: BS EN 520 Types D, H1 and R

Composition: Aerated Calcium sulphate di-hydrate with fire-resisting fillers and fibres enclosed inside a moisture resistant paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Fire Core Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
25	3	600	21.6	0.10m²K/W	λ ^R = 0.25	≥ 1500N	≥ 700N

GTEC E Board



Engineered for use within dwellings to comply with the latest Building Regulations Approved Document E Regulations.

Standards: BS 520 Type D

Composition: Aerated Calcium sulphate di-hydrate inside tough liner papers with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC E Board can be jointed and finished with any of the GTEC Jointing systems. It can be plastered on either side using single coat proprietary gypsum finishing plasters not less then 2mm thick.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4	1200	10.2	0.050m²K/W	$\lambda^{R} = 0.25$	≥ 550N	≥ 250N

REFERENCE

GTEC BOARD continued

GTEC dB Board



For superior acoustic performance.

Standards: BS EN 520 Types D and I

Composition: Aerated Calcium sulphate di-hydrate with fillers and fibres enclosed inside tough liner papers with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC dB Board can be jointed and finished with any of the GTEC Jointing systems. The blue liner paper requires more paint obscuration than normal ivory liner. Allow 10 litres / 100m².

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4	1200	11	0.05m²K/W	$\lambda^{R} = 0.25$	≥ 550N	≥ 210N
15	2.4 to 3.0	1200	13	0.06m²K/W	$\lambda^{R} = 0.25$	≥ 700N	≥ 300N

GTEC Acoustic Homespan Board



For use with the GTEC Acoustic Homespan Partition System.

Standards: BS EN 520 Type D

Composition: Aerated Calcium sulphate di-hydrate with fillers and fibres enclosed inside tough liner papers with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Acoustic Homespan Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS Ef	oads N 520)
Tapered Edge (TE)						Long.	Trans.
15	2.4 to 2.7	900	12.7	0.060m²K/W	$\lambda^{R} = 0.25$	≥ 250N	≥ 350N

GTEC Acoustic Homespan MR Board



For use with the GTEC Acoustic Homespan Partition System when superior moisture resistance is required.

Standards: BS EN 520 Type D and H2

Composition: Aerated Calcium sulphate di-hydrate with fillers and fibres enclosed inside a moisture resistant paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Acoustic Homespan MR Board can be jointed and finished with GTEC Jointing systems. The boards require priming with GTEC Universal Sealer prior to decorating. Requires PVA treatment prior to skimming.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking Loads (acc. BS EN 520)	
Tapered Edge (TE)						Long.	Trans.
15	2.4	900	12.7	0.060m²K/W	λ ^R = 0.25	≥ 250N	≥ 350N

Megadeco



Pre-sealed performance board, combining fire and impact resistance with acoustic insulation. Unique to Siniat.

Standards: BS EN 520 Type D, F, I and R

Composition: Aerated Calcium sulphate di-hydrate with fillers and fibres enclosed inside a white pre-sealed paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: Megadeco Board can be jointed and finished with only GTEC Deco jointing systems. The boards require no primer prior to decorating. The board is not suitable for skim plaster finish.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS Ef	.oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4 to 3.0	1200	11	0.05m²K/W	λ ^R = 0.25	≥ 725N	≥ 300N
15	2.4 to 3.0	1200	13	0.06m²K/W	λ ^R = 0.25	≥725N	≥ 360N

REFERENCE

GTEC BOARD continued

GTEC Universal Board



Highly versatile multi-performance board providing outstanding fire, impact and acoustic resistance.

Standards: BS EN 520 Type D, F, I and R

Composition: Aerated calcium sulphate di-hydrate with fillers and fibres enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: GTEC Universal Board can be jointed and finished with any of the GTEC Jointing systems. The surface is suitable for finishing with skimming plaster.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4 to 3.0	1200	11	0.05m²K/W	$\lambda^{R} = 0.25$	≥ 725N	≥ 300N
15	2.4 to 3.0	1200	13	0.06m²K/W	$\lambda^{R} = 0.25$	≥ 870N	≥ 360N

LaDura



Stronger and harder than standard plaster board, giving greater impact and pull out resistance. Moisture resistant. Offers a far superior finish than gypsum fibreboards. The ultimate in performance plasterboard.

Standards: BS EN 520 Type D, E, F, H1, I & R

Composition: Aerated calcium sulphate di-hydrate with fillers, glass fibre, wood fibres and moisture resistant agent enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA.

Reaction to fire: Euroclass A2-s1, d0

Finishing: LaDura Board can be jointed and finished with any of the GTEC Jointing systems

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	2.4 to 3.0	1200	12.8	0.05m²K/W	λ ^R = 0.25	≥ 725N	≥ 300N
15	2.4 to 3.0	1200	15.0	0.06m²K/W	λ ^R = 0.25	≥ 870N	≥ 360N

Aqua Board



The UK's first gypsum based board for use in high humidity or wet applications. Ideal as a tile backing board for bathrooms. Can also be used as an external sheathing board.

Standards: BS EN 15283 Type GM-F, GM-H1 and GM-I

Composition: Aerated Calcium sulphate di-hydrate with liners made from non woven tissue with fillers and fibres enclosed inside gypsum core. Core and papers bonded with starch. Edge glue is PVA. Water resistant additive is silicone oil. Core contains biocide to prevent mould growth.

Reaction to fire: Euroclass A2-s1, d0

Finishing: Aqua Board can be jointed and finished with GTEC Aqua Mix jointing system. In wet areas the boards require priming with GTEC Drywall Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
12.5	0.85 to 2.7	1200	10.8	0.05m²K/W	$\lambda^{R} = 0.25$	≥ 500N	≥ 250N
15	2.4 to 3.0	1200	13	0.06m²K/W	$\lambda^{R} = 0.25$	≥ 650N	≥ 300N

GTEC Thermal EPS Board



GTEC Standard Board laminated to expanded polystyrene insulation.

Standards: BS EN 13950

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA. Expanded polystyrene (EPS) is factory bonded to 9.5mm board using PVA adhesive.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Thermal Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS Ef	.oads N 520)
Tapered Edge (TE)						Long.	Trans.
22	2.4	1200	6.3	0.37m²K/W	$\lambda^{R} = 0.037$	-	-
30	2.4	1200	6.4	0.62m²K/W	(insulation)		
40	2.4	1200	6.5	0.89m²K/W			
50	2.4	1200	6.6	1.16m²K/W			

REFERENCE

GTEC BOARD continued

GTEC Thermal XP Board



GTEC Standard Board laminated to extruded polystyrene insulation.

Standards: BS EN 13950

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA. Extruded polystyrene (XPS) is factory bonded to 9.5mm board using PVA adhesive.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Thermal XP Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS Ef	oads N 520)
Tapered Edge (TE)						Long.	Trans.
27	2.4	1200	6.5	0.58m²K/W	λ ^R = 0.033	-	-
35	2.4	1200	6.8	0.81m²K/W	(insulation)		
55	2.4	1200	7.4	0.91 m²K/W			

GTEC Thermal PIR Board



GTEC Standard Board laminated to rigid PIR insulation.

Standards: BS EN 13950

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA. Polyisocyanurate Foam is factory bonded to 9.5mm board with various thicknesses using PVA adhesive.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Thermal K Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with TEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
37.5	2.4	1200	8.4	1.20m²K/W	λ ^R = 0.022	-	-
50.5	2.4	1200	8.6	1.89m²K/W	(insulation)		
60.2	2.4	1200	8.7	2.34m²K/W			
72.5	2.4	1200	8.8	2.79m²K/W			
82.5	2.4	1200	9.0	3.25m²K/W			

GTEC Thermal K Board



GTEC Standard Board laminated to phenolic foam.

Standards: BS EN 13950

Composition: Aerated Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges. Core and papers are bonded with starch. Edge glue is PVA. Phenol formaldehyde foam (PF) is factory bonded to 9.5mm board with various thicknesses of using PVA adhesive.

Reaction to fire: Euroclass B-s1, d0

Finishing: GTEC Thermal K Board can be jointed and finished with GTEC Jointing Systems. The boards require priming with GTEC Universal Sealer prior to decorating.

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Thermal Resistance: (R)	Thermal Conductivity (W/mk)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge (TE)						Long.	Trans.
30	2.4	1200	7.2	0.92m²K/W	λ ^R = 0.023	-	-
40	2.4	1200	7.7	1.48m²K/W	λ ^R = 0.021		
50	2.4	1200	8.2	1.95m²K/W	$\lambda^{R} = 0.021$		
60	2.4	1200	8.7	2.55m²K/W	λ ^R = 0.020		
70	2.4	1200	9.2	3.05m²K/W	$\lambda^{R} = 0.020$		
					(insulation)		

GTEC BOARD continued

GTEC Pregybel C10 no. 8



Standards: BS EN 14190

Composition: Standard plasterboard with 10mm square perforations in eight blocks. Perforated area = 16%

Reaction to fire: B-s1, d0

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge				Long.	Trans.
12.5	2.4	1200	6.89	-	-

GTEC Pregybel R12 no. 2



Standards: BS EN 14190

Composition: Standard plasterboard with 12mm round perforations in two blocks. Perforated area = 14%

Reaction to fire: B-s1, d0

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Breaking L (acc. BS Ef	oads N 520)
Tapered Edge				Long.	Trans.
12.5	2.4	1200	7.05	-	-

0

PRODUCT REFERENCE – GTEC BOARD

GTEC Pregybel R15 no. 1



Standards: BS EN 14190

Composition: Standard plasterboard with 15mm round perforations in one block. Perforated area = 16%

Reaction to fire: B-s1, d0

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge				Long.	Trans.
12.5	2.4	1200	6.89	-	-

GTEC Pregybel R15 no. 8



Standards: BS EN 14190

Composition: Standard plasterboard with 15mm round perforations in eight blocks. Perforated area = 11%

Reaction to fire: B-s1, d0

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m²)	Breaking L (acc. BS EN	oads 1 520)
Tapered Edge				Long.	Trans.
12.5	2.4	1200	7.23	-	-

GTEC Pregybel L5x80 no. 8



Standards: BS EN 14190

Composition: Standard plasterboard with 5 x 80mm line perforations in eight blocks. Perforated area = 11%

Reaction to fire: B-s1, d0

Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services

Thickness (mm)	Lengths* (m)	Widths* (mm)	Nominal Weight: (kg/m ²)	Breaking L (acc. BS EN	oads N 520)
Tapered Edge				Long.	Trans.
12.5	2.4	1200	7.23	-	-

GTEC FRAME

		Thickness (mm)	Width (mm)	Lengths* (m)	Code Ref.
GTEC C Studs					
	Galvanised C shaped metal section	0.52	44	2.4	CS44/RX
-	used with GTEC U Track to provide	0.52	50	2.4, 2.5, 2.7, 3.0, 3.6	CS50/RX
	and partitions and at abutments in	0.52	60	3.0	CS60/RX
	other systems	0.52	70	2.4, 2.7, 3.0, 3.6, 4.2, 4.8	CS70/RX
	Standards: BS EN 14195	0.52	90	3.0, 3.6, 4.2	CS90/RX
— —	Composition: Galvanised Steel, hot dipped to BS EN 10346CReaction to fire: A1CHealth and Safety: Always wear protective gloves and eyewear when handling, cutting and fittingC	0.52	146	3, 3.6, 4.2, 6.0	CS146/RX
		0.7	70	4.2	CS70/B
		0.7	90	4.2	CS90/B
W		0.7	146	4.8, 6.0	CS146/B
	<u> </u>	0.9	90	4.8, 6.0	CS90/W
		1.2	70	4.8	CS70/Y
		1.2	90	4.8	CS90/Y
		1.2	146	6.0	CS146/Y
GTEC Acoustic Hon	nespan C Studs				
	Galvanised C shaped metal section	0.52	44	2.4, 2.7	AHS44/RX
	used with GTEC U Track to provide vertical framework for GTEC Acoustic Homespan Partitions	0.52	50	2.4	AHS50/RX
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
85 36	Reaction to fire: A1				
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting				
GTEC Acoustic Hon	nespan Starter Studs				
	GTEC Acoustic Homesoan Starter	0.52	44	2.4	CS44/RX
	Studs are used at wall abutments	0.52	50	2.4	CS50/RX
	and at door openings as part of the GTEC Acoustic Homespan System				
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
9 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting				

		Thickness (mm)	Width (mm)	Lengths* (m)	Depth (mm)	Code Ref.
GTEC Acoustic Stu	d					
	A unique galvanised shaped stud	0.52	70	3.6		AS70/RX
	which, when used in a partition	0.52	90	4.2		AS90/RX
	acoustic insulation over standard 70mm metal studs with the same board linings	0.52	146	3		AS146/RX
	Standards: BS EN 14195					
	Composition: Galvanised Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					
GTEC Stud						
	Galvanised I Shaped metal section	0.52	50	3		IS50/RX
	used with GTEC U Track to provide	0.7	60	3.0.3.6		IS60/B
	a metal frame for the main run of wall linings	0.7	70	3.6, 4.2		IS70/B
	Standards: BS EN 14195	0.7	90	6		IS90/B
	Composition: Galvanised Steel, hot dipped to BS EN 10346					
W	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					
GTEC U Track						
	Galvanised U shaped metal section	0.52	45	2.4	30	UT45/RX
	used to receive GTEC C Studs to	0.52	52	3	30	UT52/RX
	and partitions	0.52	62	3	30	UT62/RX
	Standards: BS EN 14195	0.52	72	3	30	UT72/RX
īl I	Composition: Galvanised Steel, hot dipped to BS EN 10346	0.52	92	3	30	UT92/RX
0	Reaction to fire: A1	0.52	148	3	30	UT148/RX
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					

*Bespoke lengths to order.

GTEC FRAME continued

		Thickness (mm)	Width (mm)	Lengths* (m)	Flange (mm)	Code Ref.
GTEC U Track Deep	Flange					
	Used for partitions with heights exceeding 4.2m, or at the soffit	0.7 0.7	52 62	3	50 50	UDT52/B UDT62/B
	where a deflection head is required	0.7	72	3	50	UDT72/B
	Standards: BS EN 14195	0.7	92	3	50	UDT92/B
	hot dipped to BS EN 10346	0.7	148	3	50	UDT148/B
	Reaction to fire: A1					
05 	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					
GTEC U Track Extra	a Deep Flange					
	Used for partitions with heights	0.7	72	3	70	UXT72/B
	exceeding 4.2m or at the soffit where a deflection head is required	0.9	92	3	70	UXT92/W
	Standards: BS EN 14195	0.9	148	3	70	UXT148/W
	Composition: Galvanised Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
20 W	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					
CTEC Flow Trook Dr						
GIEC Flex Track De	ep Flange					
	GTEC Flex track is designed to allow easy construction of curved partitions. It is a galvanised 0.7mm metal angle used in place of standard metal GTEC U Tack. It is supplied pre-cut to allow a minimum radius of 600mm to be achieved.	0.7	0.7	3		DFLEX/B
	Standards: BS EN 14195					
	Composition: Galvanised Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					

		Thickness (mm)	Width (mm)	Lengths* (m)	Flange (mm)	Code Ref.
GTEC Ceiling Char	inel				1	
	Galvanised steel channel used to support boards in the GTEC Suspended MF Ceiling System Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	0.55	79	3.6	25	MFCC50
GTEC Primary Cha	nnel		1			
	Galvanised steel channel used to support the GTEC Ceiling Channel MFCC50 in the GTEC Suspended MF Ceiling System Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	0.80	44	3.6	15	MFCP44
GTEC Edge Chann	el					
	Galvanised steel channel used to form the perimeter support of the GTEC Suspended MF Ceiling System Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	0.55	26	3.6	19/30	MFCE26
GTEC Heavy Gaug	e Primary Channel				1	
	Used in mass barrier GTEC Suspended MF Ceilings to support increased load Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear	1.2	52	3	30	UT52/Y

*Bespoke lengths to order.

FLOORS AND CEILINGS

GTEC FRAME continued

		Thickness (mm)	Width (mm)	Lengths* (m)	Flange (mm)	Code Ref.
GTEC Connecting (Slip					
	A galvanised steel clip for joining GTEC Ceiling Channel to GTEC Primary Channel in single layer systems only					MFCCLIP
	Standards: BS EN 14195					
\checkmark	Composition: Galvanised Spring Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting					
GTEC Soffit Cleat						
	Galvanised steel bracket used to fix angle brackets or strap hanger to the substrate for the GTEC Suspended MF Ceiling System					MFCCLEAT
	Standards: BS EN 14195					
2	Composition: Galvanised Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting					
GTEC Dryliner Char	nnel					
	A galvanised steel furring channel for plasterboard fixing in the GTEC Dryliner system	0.55	47	2.4, 2.7, 3.0, 3.6	17	RD1
	Standards: BS EN 14195					
2 2 2	Composition: Galvanised Steel, hot dipped to BS EN 10346					
	Reaction to fire: A1					
47	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					

				Thickness (mm)	Width (mm)	Lengths* (m)	Flange (mm)	Code Ref.
GTE	C Drylir	ner Trac	k					
			Galvanised metal J shaped section used as a track or perimeter channel in the GTEC Dryliner System	0.55	19	3	20/30	RD9
			Standards: BS EN 14195					
	1		Composition: Galvanised Steel, hot dipped to BS EN 10346					
	l 1 ⁻		Reaction to fire: A1					
30		20	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					

		Cavity Depth (mm)	Length (mm)	Overall Width (mm)	Code Ref.
GTEC SR Bracket					
	Steel bracket used to brace GTEC Dryliner Channels to substrate in the GTEC Dryliner Ceiling and Lining systems	25-60	48	35	RD2
Colores -	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
2	Reaction to fire: A1				
48	Health and Safety: Always wear protective gloves and eyewear when handling and fitting				

		Cavity Width (mm)	Length (mm)	Overall Width (mm)	Code Ref.
GTEC XR Bracket					
	Extended reach steel bracket used to brace GTEC Dryliner Channels to substrate in the GTEC Dryliner Ceiling and Lining systems	25-130	48	35	RD11
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
[]]	Health and Safety: Always wear protective gloves and eyewear when handling and fitting				
48					

*Bespoke lengths to order.

REFERENCE

GTEC FRAME continued

		Width (mm)	Length (mm)	Depth (mm)	Code Ref.
GTEC Dryliner Char	nel Connector				
	A galvanised clip used to join GTEC Dryliner Channels (RD1)	47	100	16	RD3
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting				

		Thickness Depth (mm)	Length (mm)	Depth (mm)	Width (mm)	Code Ref.
GTEC Shallow Wall	Channel					
	Galvanised channel for dabbing to walls or for shot-firing to masonry walls.	0.52	2400	15	79	MFCS/RX
	Standards: BS EN 14195					
	Composition: Galvanised Steel, hot dipped to BS EN 10346					
43	Reaction to fire: A1					
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting					

		Thickness (mm)	Width (mm)	Length* (m)	Code Ref.
GTEC CH Stud					
	Light-weight non-loadbearing steel	0.7	60	3.0, 4.8	CHS60/B
	sections which are installed between GTEC Fire Core Board and provide the	0.7	60	4.2, 6.6	CHS90/B
	bearing surface to which plasterboard is applied in GTEC Shaftwall system	0.7	146	6.0	CHS146/B
	Standards: BS EN 14195				
35	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting				

		Thickness (mm)	Width (mm)	Length (m)	Code Ref.
GTEC E Stud					
	Light-weight steel sections used for starter studs, intersections, door openings and end studs in GTEC Shaftwall System	0.7 0.7 0.7	60 90 146	3.0, 4.8 4.2, 6.6 6.0	ES60/B ES90/B ES146/B
32 m	 Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting 				
GTEC J Track			I		
	Light-weight steel sections positioned at floor and soffit to guide GTEC CH Studs in GTEC Shaftwall system Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1 Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	0.7 0.7 0.7	62 92 148	3.0 3.0 3.0	JT62/B JT92/B JT148/B
GTEC Resilient Bar					
	Acoustic isolation bar for improving the sound performance of a partition or ceiling, and minimising the risk of joints cracking due to timber movement during drying out Standards: BS EN 14195 Composition: Galvanised Steel, hot dipped to BS EN 10346 Reaction to fire: A1	0.52		3.0	RBD3000/RX
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting				

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GTEC FRAME continued

		Thickness	Max. Steel Flange (mm)	Code Ref.
GTEC CB Clip				
	Light-weight steel clips friction fitted	0.55	17	CB17
	to flanges of structural steelwork in the GTEC Column and Beam Clip System. Used in conjunction with GTEC Edge Channel.	0.55	27	CB27
	Standards: BS EN 14195			
	Composition: Galvanised Steel, hot dipped to BS EN 10346			
	Reaction to fire: A1			
2	Health and Safety: Always wear protective gloves and eyewear when handling and fitting			

		Total Length (mm)	Min. frame separation (mm)	Code Ref.
GTEC Acoustic V B	race			
	Acoustic brace for bracing twin wall partitions	106	35	VBRACE
	Composition: Spring steel with black phosphate coating			
	Reaction to fire: A1			
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting			
GTEC Acoustic V B	race 90°			
	Acoustic brace for bracing linings and twin frame partitions	65	35	VBRACE90
	Composition: Spring steel with black phosphate coating			
	Reaction to fire: A1			
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting			

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		Overall Size (mm)	Coating	Max Weight (kg)	Code Ref.
GTEC Phonissimo A	Acoustic Hanger				
e a contra	Heavy duty acoustic suspended ceiling hanger bracket for use with the GTEC Suspended MF Ceiling System. This bracket is capable of supporting services and a secondary ceiling.	70 x 30 x 30		50	PHONIMO
	Standards: BS EN 14195				
	Composition: Zinc galvanised mild steel / Moulded neoprene elastomeric rubber				
	Reaction to fire: A1				
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting				
GTEC Phonistar Ac	oustic Hanger				
	Very heavy duty acoustic suspended ceiling hanger bracket for use with the GTEC Suspended MF Ceiling System. This bracket is capable of supporting services and a secondary ceiling. Standards: BS EN 14195 Composition: Zinc galvanised mild steel / Moulded neoprene elastomeric rubber Reaction to fire: A1	55 x 75	Zinc	120	PHONI
	protective gloves and eyewear when handling and fitting				
GTEC Acoustic Floo	or Clip				
	Metal clip used in the GTEC Acoustic Floor System	50 x 30			RAFC25
	Composition: Spring steel with black phosphate coating				
	Reaction to fire: A1				
•	Health and Safety: Always wear protective gloves and eyewear when handling and fitting				

GTEC FRAME continued

		Overall size (mm)	Code Ref.
GTEC Staggered S	tud Clip		
ALTERNAS	A spacing clip for use in GTEC partitions with staggered GTEC I Studs	12 x 27.5 x 38	ISC10
	Composition: Galvanised Steel, hot dipped to BS EN 10346		
	Reaction to fire: A1		
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting		

		Width (mm)	Length (m)	Code Ref.
GTEC Resilient Tap	e			
	Self-adhesive acoustic isolation tape	50	12	RAFT50
	Composition: Natural Rubber with a solvent based acrylic adhesive			

		Gauge (mm)	Length (m)	Code Ref.
GTEC Strap Hang	er			
\cap	May be used in lieu of GTEC Metal Angle for ceiling depths up to 1 metre	0.55	25	MFCSTRAP
\bigcirc	Standards: BS EN 14195			
	Composition: Galvanised Mild Steel, hot dipped to BS EN 10346			
	Reaction to fire: A1			
	Health and Safety: Always wear protective gloves and eyewear when handling and fitting			

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		Flange Widt (width)	h (depth)	Length (m)	Code Ref.
GTEC Metal Angle	90°				
	Galvanised versatile metal section	23	30	3.6	MFC2330
	Standards: BS EN 14195	25 25	25 50	3.6 3.6	MFC2525 MFC2550
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
• w	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting			r.	
		Gauge	Width (mm)	Length (m)	Code Ref.
GTEC Flat Strap					
	Galvanised metal GTEC Flat Strap used in linings and partitions to provide support for GTEC Flat Strap	0.52	50	2.4	FS50/RX
		0.85	90	2.4	FS90/W
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				

Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting

		Thickness (mm)	Width (mm)	Length (m)	Code Ref.
GTEC Fixing Chann	el				
	Galvanised metal channel used in linings and partitions to provide support to plasterboard joints and heavy fixtures. Also provides a fire stop	0.9	99	2.4	MFIX
	Standards: BS EN 14195				
	Composition: Galvanised Steel, hot dipped to BS EN 10346				
	Reaction to fire: A1				
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting				

GTEC FRAME continued

		Length (m)	Code Ref.
GTEC Movement C	Control Joint		
	Metal sections fixed between boards to control movement up to 10mm.	3.048	MCJ3048
	Composition: Galvanised Steel, hot dipped to BS EN 10346		
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting		

		Width (mm)	Code Ref.
GTEC Insulation Ho	bld		
	Metal strip used with timber and metal framing for supporting mineral wool insulation	25	INSR
- A	Composition: Galvanised Mild Steel, hot dipped to BS EN 10346		
	Reaction to fire: A1		
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting		

GTEC FIX

		Size	Coverage Guide	Application
GTEC Universal Bonding C	Compound			
GTEC Universal Bonding	Gypsum based compound for direct bonding plasterboard to walls or bonding GTEC Metal Furring Wall Channels to walls. Suitable for bonding GTEC Thermal Boards.	25kg bag	8m² Internal walls	Hand only
	Standards: BS EN 14496			
	Composition: Calcium sulphate hemihydrate with polymer binders			
N S S	Reaction to fire: A2, s1, d0			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC Wall Lining Adhesiv	e			
ATEC	For bonding plasterboard to tiles or bonding flooring to plasterboard in some flooring systems	5ltr bucket	50m²	Hand application only
Wall Lining Adhesive	relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC E-coat				
GTEC ANK	A gypsum based acoustic render for use on party walls prior to direct bonding. Robust Detail approved.	25kg bag	5m²	Hand application only
E-Coat Coat Coat	Composition: Calcium sulphate hemihydrate and limestone with polymer binders			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			

GTEC DRYWALL SCREWS

		Length (mm)	Diameter (mm)	Head Type	Drive Type	Thread	Point
GTEC Drywall Sc	rew – Self Tapping	1					
	Screw for attaching	25	3.5	Bugle	Phillips 2	Fine	Self-tapping
No.	plasterboard to light	32	3.5				
and the second s	gauge metal.	38	3.5				
14	Composition: Cashaa	42	3.5				
	steel with zinc coating	50	3.5				
		65	4.2				
		75	4.2				
		90	4.8				
GTEC Drywall Sc	rew – High Thread						
Mar	Screw for attaching	32	3.5	Bugle	Phillips 2	Coarse	Self-tapping
	plasterboard to timber framework.	38	3.5				
	Standards: BS EN 14566	42	3.5				
6	Composition: Carbon steel with black	50	3.5				
		65	4.2				
	phosphate coating	75	4.2				
		90	4.8				
		100	4.8				
GTEC Drywall Sc	rew – Self Drilling						
<u>a</u>	Screw for attaching	25	3.5	Bugle	Phillips 2	Fine	Self-drilling
This is a second second	plasterboard to heavy	32	3.5				
and the second second	Standards: BS EN 14566	42	3.5				
X	Composition: Carbon	50	3.5				
	steel with zinc coating	65	4.2				
		75	4.2				
		90	4.8				
GTEC Performan	ce Drywall Screw – Self 1	apping					
War.	For attaching GTEC	35	3.9	Bugle	Phillips 2	Fine	Self-tapping
	Performance board to light gauge metal and ceiling systems.	45	3.9				
T	Standards: BS EN 14566						
	Composition: Carbon steel with zinc coating						
		Length (mm)	Diameter (mm)	Head Type	Drive Type	Thread	Point
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GTEC Wet Area	Drywall Screw						
X	For attaching GTEC Wet	25	3.5	Bugle	Phillips 2	Fine	Self-drilling
	Area boards to various substrates.	38	3.5			Fine	Self-drilling
	Standards: BS EN 14566	32	3.5			Fine	Self-tapping
	Composition: Carbon	42	3.5			Fine	Self-tapping
	steel with ceramic coating	42	3.5			Coarse	Self-tapping
GTEC Drywall S	crew – Wafer Head						
	Screw for connecting metal components beneath plasterboard.	13	4.2	Wafer	Phillips 2	Fine	Self-tapping
Strange .		12	4.2	Head		Fine	Self-drilling
T	Standards: BS EN 14566						
	Composition: Carbon steel with zinc coating						
GTEC Drywall Se	crew - Acoustic Floor - Se	elf Tappi	ng				
	For use with the GTEC Acoustic Floor System.	63	3.8	Countersunk	Phillips 2	Fine	Self-tapping
	Standards: BS EN 14566						
	Composition: Carbon						

		Length (mm)	Plug Material	Pilot Hole Size
GTEC Nailable P	lugs			
	For the secondary mechanical fixing of	60	Red Plastic	8mm
	GTEC Thermal and GTEC Contour Boards when bonded.	80		
N.	Standards: n/a	100		
	Composition: n/a	120		

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GTEC FINISH

		Bag Size (kg)	Coverage Guide	Application
GTEC Joint Filler Xtra				
BOT A Smar	GTEC Joint Filler Xtra is a gypsum based joint compound with 90 minute setting time for bedding tapes by hand application.	12.5	25m² Bedding & Filling	Hand only
	Standards: Type 1B to BS EN 13963		37m² Beddina	
Ktra Grount present for the grount	Composition: Calcium sulphate hemihydrate and limestone with polymer binders		only	
	Reaction to fire: A1			
25.	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC Joint Cement Xt	ra			
Source Comment of the State	Air-Drying Compound – GTEC Joint Cement Xtra is a light-weight, air-drying joint cement offering superior Coverage Guide and easy sanding. Can be used for bedding tapes and finishing joints in a 2-stage application. Also suitable for machine application.	22.5	64m² Full Taping Operation 174m² Finishing Coat only	Hand or machine application
000	Standards: Type 3A to BS EN 13963			
225	Composition: Limestone and mica based, containing amounts of vinyl polymers and workability aids			
	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC Easy Finish Xtra				
	Setting/Air-Drying Combined – GTEC Easy Finish – revolutionary and lightweight, GTEC Easy Finish is the ideal jointing compound for same day completion of the jointing application due to a 90 minute setting time.	10	64m ² Full Taping Operation 174m ² Finishing	Hand application only
Xtra	Standards: Type 3B to BS EN 13963		Coat only	
All Latitud constants	Composition: Calcium sulphate hemihydrate and limestone with polymer binders			
1 00	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			

		Size (kg)	Coverage Guide	Application
GTEC Smartmix Xtra				
GTEC	Air-Drying Compound Ready Mixed – GTEC Smartmix Xtra is a light-weight compound offering superior coverage and easy sanding. Can be used for bedding tapes and finishing joints in a 2-stage application. Ideal for machine application. Standards: Type 3A to BS EN 13963	20	50m ² Full Taping Operation 135m ² Finishing Coat Only	Hand or machine application
	Composition: Limestone and mica based, containing amounts of vinyl polymers and workability aids. Water based.			
	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC Aquamix				
	GTEC Aquamix is a water resistant ready- mixed joint cement. For use in humid and wet applications	20	50m² Full Taping Operation	Hand application only
	Standards: Type 3A to BS EN 13963		135m²	
	Reaction to fire: A2		Finishing Coat Only	
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services		(20kg)	
GTEC Deco Filler				
	Deco Setting Compound – GTEC Deco Filler is a gypsum based compound designed for bedding and filling joints by hand when using the GTEC Deco System.	12.5	25m² Bedding & Filling only	Hand application only
A Stream Sentence (5)	Standards: Type 1B to BS EN 13963			
	Composition: Calcium sulphate hemihydrate and limestone with polymer binders			
1250	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through			

GTEC FINISH continued

		Size (kg)	Coverage Guide	Application
GTEC Deco Joint Cemer	nt			
GTEC AND Deco Joint Cement	Deco Air-Drying Compounds Ready Mixed – GTEC Deco Joint Cement is a light-weight, readymixed compound which must be used for the final coat of the jointing process and can be used for bedding and filling when using the GTEC Deco System.	20	50m² Full Taping 135m² Finishing Coat only	Hand or machine application
	Standards: Type 3A to BS EN 13963			
201	Composition: Limestone and mica based, containing amounts of vinyl polymers and workability aids. Water based.			
	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			

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PRODUCT REFERENCE – GTEC FINISH

		Roll Size (m)	Nominal Width (mm)
GTEC Joint Tape			
C 0	White perforated cross fibre tape for reinforcing joints. Suitable for hand or mechanical application with GTEC Jointing Compounds.	150	53
	Standards: BS EN 13963		
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services		
GTEC Patching Tape			
	Self adhesive fibreglass tape for patching plasterboard.	90	52
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services		
GTEC Flex Tape			
	Cross fibre paper tape with heat bonded zinc coated steel strips for the protection of external corner angles.	33	51
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services		
GTEC Aquastrip			
Ar smat	This mesh strip is used in the GTEC Aqua System to protect exposed drylining perimeters for wet applications.	50	100
50.	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services		

GTEC FINISH continued

		Length (mm)
GTEC Corner 90° E	xternal	
	Tape-On Beads are a paper tape reinforced with galvanised metal for protection of external corners and board edges	2400
	Used for taping and jointing.	3000
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services	
GTEC Duo Bead		
0000	Galvanised steel angle bead with 3mm nose for drywall corner reinforcement. Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	2400 3000
GTEC Edging Bead		
	Galvanised steel bead gives a neat edge to plasterboard. Perforated to provide a key for jointing compound.	3000
	Health and Safety: Always wear protective gloves and eyewear when handling, cutting and fitting	

		Bucket Size (kg)	Coverage Guide	Application
GTEC Universal Sealer				
	For use on plasterboard prior to painting for improved whiteness and covering power. Does not provide a vapour control layer.	10	100m² One coat	Hand application only
OTEC	Composition: A blend of limestone and silica fillers dispersed with polymers			
	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			
GTEC Drywall Sealer				
	lvory, pre-decoration coat for plasterboard.	10	100m² One coat	Hand application
GTEC TE ANY	Composition: Aqueous, modified adhesive based on polyvinyl acetate		70m² Two coats	onny
brywaii Sealer	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			

Length (mm) GTEC Cove 90 3000 Gypsum plaster moulding in a traditional cove profile, provides SALAN STEEL CAN YO . an attractive feature at the junction of walls and ceilings. Standards: BS EN 14209 **Composition:** Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges Reaction to fire: Euroclass A2-s1, d0 Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services GTEC Cove 120 3000 Gypsum plaster moulding in a larger Ar snat Gree o traditional cove profile, provides an 3600 attractive feature at the junction of walls and ceilings. 4200 Standards: BS EN 14209 Composition: Calcium sulphate di-hydrate enclosed inside a tough paper with bound edges Reaction to fire: Euroclass A2-s1. d0 Health and Safety: Please read the relevant Health and Safety Datasheet

		Bag Size (kg)	Coverage Guide	Application
GTEC Cove Adhesi	ve			
Bang GTEC Cove Adhesive	A gypsum based adhesive with a 40 minute setting time for fast fixing of cove. Composition: Calcium sulphate hemihydrate with Polymer binders	5 12.5	11 linear metres (approx) 33 linear metres (approx)	Hand application only 40 minute setting time
000	Reaction to fire: A2			
	Health and Safety: Please read the relevant Health and Safety Datasheet available on our website or through Technical Services			

available on our website or through

Technical Services

TECHNICAL SERVICES T: 01275 377789 E: technical.siniat@etexbp.co.uk W: www.siniat.co.uk

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REFERENCE

GTEC FINISH continued

		Pad Size (mm)	Thickness (mm)	Size		Code Ref.
GTEC Socket Pads						
	GTEC Socket Pads are used to protect the fire and acoustic integrity of partitions where electrical sockets are used.	170 x 170 230 x 170	4	Single socket Double socket		PAD1 PAD2
		Size (Itr)	Coverage (6mm Bead)	Colour	Max widt	i mum joint : h (mm)
GTEC Intumescent	Acoustic Sealant					
11.	Gun applied water based sealant for use as an acoustic sealant, resilient adhesive, decorators caulk or as intumescent mastic to seal air gaps at system perimeter.	0.9 0.38	29 linear metres 12 linear metres	White White	25 2	
	Composition: Acrylic emulsion containing inert fillers and fungicide					



PROFILE GUIDE

GTEC STUD AND TRACK PROFILES



		Gauge					
	44	50	60	70	90	146	RX
d (CS	-	-	-	70	90	146	В
Stuo	_	-	-	_	90	-	VV
0	_	_	_	_	90	146	Y





GTEC U Track Deep Flange (UDT)



GTEC U Track Extra Deep Flange (UXT)



(UT)

(IS)



(AHS)

GTEC Acoustic Homespan Stud



GTEC Acoustic Stud (AS)

		Gauge					
UT	45	52	62	72	92	148	RX
	-	52	62	72	92	148	В
JDI	-	52	-	-	-	-	Y
IVT	-	-	-	-	92	148	W
JXI	-	-	-	72	-	-	В

		Width (mm)						Gauge
A۲	ΗS	44	50	-	-	-	-	RX
A	S	-	-	-	70	90	146	RX
IS	_	-	50	-	-	-	-	RX
	2	-	-	60	70	90	-	В

uge Thickness	RX	0.52mm
	В	0.70mm
	W	0.90mm
	Υ	1.2mm

GTEC ACCESSORIES







GTEC Resilient Bar (RBD3000/RX)



GTEC Acoustic V Brace

(VBRACE)

Ga

GTEC Movement Control Joint (MCJ304D)

GTEC Metal Angle





ŝ

(MFC2525)





GTEC Fixing Channel (MFIX/W)

332

(MFC2330)

All dimensions are in mm

PARTITIONS

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GTEC SUSPENDED MF CEILING PROFILES









GTEC Heavy Guage Primary Channel (UT52/Y)

GTEC Edge Channel (MFCE26)

GTEC Ceiling Channel (MFC50) GTEC Primary Channel (MFCP44)

GTEC DRYLINER PROFILES





GTEC Dryliner Track (RD9)

Ъ

18

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GTEC Shallow Wall Channel (MFCS/RX)

GTEC Dryliner Channel (RD1)



133

GTEC XR Bracket (RD11)



GTEC SR Bracket (RD2)

Gauge Thickness RX 0.52mm B 0.70mm W 0.90mm Y 1.2mm

GTEC FIRE PROTECTION PROFILES





GTEC CH Stud (CHS)

25		35
	width	

GTEC E Stud (ES)



GTEC CB Clip (CB)

	Wid	th (r	Gauge	
JT	62	92	148	В
ES	60	90	146	В
CHS	60	90	146	В

	Depth (mm)				
CB CLIP	17	27	40		

All dimensions are in mm

SCREW SELECTION GUIDE

GTEC Drywall Screws are a comprehensive range of mechanical fixings essential for use in GTEC systems. All screws have been rigorously tested for mechanical characteristics such as shear and pull-out, allowing the design of systems with superior levels of structural performance. Only the use of GTEC screws will enable maximum heights and loadings to be achieved safely. GTEC Drywall Screws are fully CE marked and compliant with BS EN 14566.

Purpose	Board Density	Substrate	Min. Length	Thread & Point	Product
Fixing boards to timber framing	Lower	Timber	Board(s) Thickness + 25mm	Coarse, self-tapping	GTEC High Thread Drywall Screw
Fixing boards to metal framing	12.5mm < 11kg/m ²	Thin gauge metal Rx (0.52mm) & B (0.7mm)	Board(s) Thickness + 10mm	Fine, self-tapping	GTEC Self-Tapping Drywall Screw
Fixing boards to metal framing	13kg/m ²	Thick gauge metal W (0.9mm) & Y (1.2mm)	Board(s) Thickness + 10mm	Fine, self-drilling	GTEC Self-Drilling Drywall Screw
Fixing boards to timber framing	Higher	Timber	Board(s) Thickness + 25mm	Coarse, self-tapping	GTEC High Thread Drywall Screw
Fixing boards to metal framing	12.5mm > 11kg/m ² 15mm > 13kg/m ²	Thin gauge metal Rx (0.52mm) & B (0.7mm)	Board(s) Thickness + 10mm	Fine, self-tapping	GTEC Performance Self- Tapping Drywall Screw
Fixing boards to metal framing		Thick gauge metal W (0.9mm) & Y (1.2mm)	Board(s) Thickness + 10mm	Fine, self-drilling	GTEC Self-Drilling Drywall Screw
	1	1	1	1	
Fixing boards to timber framing in wet areas		Timber	Board(s) Thickness + 25mm	Coarse, self-tapping	GTEC Wet Area High Thread Drywall Screw
Fixing boards to metal framing in wet areas	All	Thin gauge metal Rx (0.52mm) & B (0.7mm)	Board(s) Thickness + 10mm	Fine, self-tapping	GTEC Wet Area Self-Tapping Drywall Screw
Fixing boards to metal framing in wet areas		Thick gauge metal W (0.9) & Y (1.2)	Board(s) Thickness + 10mm	Fine, self-drilling	GTEC Wet Area Self-Drilling Drywall Screw
	1		1	1	
Fixing metal to metal	n/a	All metal gauges	n/a	Fine, self-drilling	GTEC Wafer Head Drywall Screw
Fixing floorboards to boards and metal angles in GTEC Acoustic Floor System	AII	n/a	n/a	Fine, self-tapping	GTEC Acoustic Floor Screw
Secondary board retention	All	Masonry	Thickness of board + 25mm	Nail	GTEC Nailable Plug

SCREW SELECTION

- Select screws based on application, substrate and board density outlined in table above.
- Higher density boards are those with a weight of 11kg/m² and above for 12.5mm boards and 13kg/m² and above for 15mm boards.
- For timber substrates minimum length of screws to be total board thickness plus 25mm penetration into the substrate.
- For metal substrates minimum length of screws to be total board thickness plus 10mm penetration into the substrate.
- When fixing to GTEC Resilient Bar screws must be fixed to bar only and not penetrate into metal or timber substrate below.

SCREW POSITIONING

- Screws to be located minimum of 10mm from bound edges.
- Screws to be located minimum of 13mm from cut edges.
- Screw location for timber studs to be minimum of 6mm from edge of stud.
- Screw location for metal frame to be minimum of 3mm from edge of profile.

MAXIMUM SPACINGS

- GTEC Partitions 300mm. See section for more detailed guidance.
- ▶ GTEC Linings 300mm. See section for more detailed quidance.
- GTEC Fire Protection systems 300mm. See section for more detailed guidance.
- ▼ GTEC Ceilings 150mm at perimeters and/ or cut edges, and 230mm in field of board and/or bound edges. See section for more detailed guidance.

FINISHING

- Screw heads to be driven into board until slightly recessed into board surface.
- Screws heads to be sealed with GTEC Drywall or Universal Sealer and spotted with GTEC Jointing Compound to create flush finish.

RF-SC-001-Fixing to metal framing







RF-SC-002 -Fixing to timber framing

PARTITIONS

FLOORS AND CEILINGS

SUSTAINABILITY

SINIAT AND SUSTAINABILITY

- ✓ Plasterboard is fully recyclable with no loss in quality
- ✓ GTEC Products and Systems are BRE Green Guide A and A+ rated and help collect sustainability code credits
- ✓ Unique product innovations minimise the number of boards needed in a design
- ✓ Certified and managed sustainability: Responsible Sourcing BES 6001, ISO 9001 and ISO 14001
- ✓ Full plasterboard site waste collection and recycling from GTEC Wasteline Direct

INTRODUCTION

Sustainability has long been a core value at Siniat and is now top of the agenda for everyone in the construction supply chain. We remain committed to sustainable development and construction in both our business approach and in meeting the needs of the built environment. As a leading supplier of construction products, Siniat has a huge responsibility. Building materials meet basic human needs for the buildings that are part of everyday life. With economic growth and social development increasing demand we have to balance the human benefits of our products with the availability of finite and non-renewable resources.

Therefore, at Siniat, we focus on environmental sustainability and leaving the lightest possible trace on the earth while enabling the social and economic sustainability of our operations.

SINIAT FIRSTS:



2004: The first plasterboard manufacturer in the UK to achieve ISO 9001 and ISO 14001 certification for all

activities – these international standards provide the framework for our conservation of natural resources. They ensure continuous improvement in quality and service, as well as emission reductions and innovative solutions for ever more sustainable buildings.



2011: The first plasterboard manufacturer in the UK to achieve BES6001 certification, the industry sustainability

standard for the responsible sourcing of construction products. This independent assessment certifies environmental stewardship and social and economic sustainability within our operations and supply chain.

OUR SUSTAINABILITY POLICY: A LIFE CYCLE APPROACH

To meet your client's sustainability targets, Siniat takes a life cycle approach to minimising the environmental impacts of manufacturing and supply operations.

All of our plant and supply chain activities translate into embodied impacts (such as carbon, water and recycled content) within your construction project. Therefore, we intervene at every life cycle stage to reduce these through material and energy resource minimisation, efficiency and recycling.

AND IT'S NOT JUST ABOUT THE ENVIRONMENT...

As part of our product stewardship, we provide for the communities of people supplying our materials; manufacturing our products; living near to our plants; or installing our products and systems on site. We have adopted the United Nations Global Compact within our Responsible Sourcing Policy and expect suppliers to do the same.

MINIMISING WASTE

Whilst all drywall projects generate waste from off-cuts, steps can be taken to minimise this. Our project teams can help you reduce waste through selecting appropriate products and systems, and efficient design detailing. Where necessary, we can supply boards and metal studs in non-standard lengths to reduce wastage on site. Reducing damage to boards and pallets with good site storage and transport practices can also make a big contribution.

GYPSUM WASTE RECYCLING

An outstanding sustainability credential of plasterboard is that it can be recycled into new board products with no loss in quality. Siniat has been recycling plasterboard process waste for many years, becoming the first to eliminate plasterboard manufacturing waste to landfill in 2005.

We are now one of the leading recyclers of plasterboard waste in the UK.

European and UK regulations now require all gypsum waste to be segregated at source. While it remains legal to landfill gypsum waste in dedicated facilities our GTEC Wasteline Direct service makes this easy to avoid, recycling many thousands of tonnes of waste every year.

Offered to merchants, distributors and contractors our GTEC Wasteline Direct service can take care of all your plasterboard waste management needs. Siniat partners with specialist providers, to offer cost-competitive collections on a national basis.

Monthly reports of quantities removed are provided by GTEC Wasteline Direct. Siniat will endeavour to recycle the waste back into new plasterboard wherever viable. Where this is not possible, we direct the recovered gypsum to other favourable uses approved by the Environment Agency. GTEC Wasteline Direct will not landfill any clean plasterboard waste recovered by the scheme.

An up-to-date list of the GTEC products accepted by the scheme is available on our website where you can also request a service cost quotation. Or, telephone **01275 377579** or email **gtecwasteline@siniat.co.uk**

MANAGING THE PRODUCT LIFECYCLE



- All our supply quarries have a biodiversity rehabilitation plan with state-of-the-art replanting. Delivery by bulk shipping is 20 times more carbon efficient than road transport.
- Flue Gas Desulphurisation (FGD) systems used in power stations eliminate sulphur dioxide emissions and produce high purity gypsum as a by-product. All our FGD gypsum supplies are delivered by carbon efficient rail transport.
- The plasterboard liners we use comprise 100% recycled paper, principally from post-consumer packaging.
- 4. Our manufacturing process has very few emissions as all process water and waste is recycled internally. Zero waste goes to landfill. Our £1.6 million investments in energy efficiency saved over 40,000 tonnes of carbon dioxide by 2010.

- 5. Packaging is the second largest source of waste in construction. Against a national target of 20% Siniat reduced packaging by over 50% following investments of over £1 million. The bearers used for board packaging are from certified and sustainable sources.
- We pioneered the use of fuel-saving 'teardrop' trailers to limit the impacts of product delivery. Coupled with LPG conversion the carbon footprint of our distribution activities has been reduced by 10%.
- Almost all GTEC Plasterboards are fully recyclable into new products. The gypsum and paper are separated, with both suitable for closed-loop recycling. Our GTEC Wasteline Direct service offers a plasterboard recovery and recycling service.

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SUSTAINABILITY

SUSTAINABLE CONSTRUCTION

GTEC PRODUCTS AND SYSTEMS FOR SUSTAINABLE BUILDINGS

As well as meeting regulation standards, our high performance products and systems enhance the sustainability of your building projects in many ways:

- Thermal boards contribute to the conservation of energy and CO₂ emissions
- Fire boards contribute to safety as well as building durability
- Acoustic boards provide sound insulation and enhance the conditions required in our buildings and homes
- Impact boards meet the severe duty ratings required in public areas, reducing maintenance and promoting durability

Through constant innovation, the GTEC range includes unique, specialist boards with enhanced features and performance to minimise the volume used on site.

Megadeco

This patented product is unique. Its presealed surface speeds up installation by eliminating sealing on site.

LaDura

LaDura offers similar resource efficiency plus metal stud savings, due to its high strength. Excellent durability will reduce the need for maintenance.

Weather Defence

This unique board for external applications offers major carbon reductions compared to the cementitious boards traditionally used. Excellent stability provides superior airtightness of the building envelope. Weather Defence offers improved recyclability and eliminates dust exposure for installers.

RESPONSIBLE SOURCING AND BES6001

Siniat was the first manufacturer in the UK to offer plasterboard products certified to the BRE Environmental and Sustainability Framework Standard for the Responsible Sourcing of Construction Products, BES6001. Our review in 2012 extended our rating to the 'Very Good' grading.

This certificate may be downloaded from BRE's Green Book Live website: www.greenbooklive.com. When using GTEC products on your projects, you can collect credits within the Materials section in BREEAM.

BRE GREEN GUIDE

Due to the low environmental impact of plasterboard products, the BRE Green Guide rating for most of the GTEC systems listed in the manual is A or A+. Embodied carbon figures for building elements are also listed. Our projects team will seek to provide the highest possible rating in line with your project's specific performance requirements.

BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL ASSESSMENT METHOD (BREEAM)

BREEAM is the most widely used environmental assessment method for buildings in the UK. It provides a consistent and robust means of rating building sustainability. Siniat GTEC products can make a significant contribution to higher ratings. BREEAM involves nine key areas of project design. Credits are awarded in each of the design areas and the overall score is calculated from a weighted scorecard of the section credits. The final score is then rated as Pass, Good, Very Good, Excellent or Outstanding. Education and Healthcare buildings must meet certain minimum ratings, and other ratings criteria may apply to building projects as a condition of planning approval.

GTEC SYSTEMS AND BREEAM:

- The range of high performance GTEC Thermal Boards provide for space-efficient insulation.
 The Global Warming Potential (GWP) of all these insulated boards is below 5, accessing additional credits.
- GTEC systems achieve the high sound insulation values necessary to gain the credits for exceeding Building Regulation requirements.
- In the Materials Section, the excellent BRE Green Guide ratings of GTEC Systems and our BES6001 certification for Responsible Sourcing both access credits.
- Our plasterboard waste recovery service, GTEC Wasteline Direct, can support your site waste management needs and is also eligible for credits.
- ▶ Durability credits are available where Severe Duty partitions are used in corridors and public areas.
- The zero release of VOC's (volatile organic compounds) from GTEC boards contributes to Indoor Air Quality. Specification of Megadeco can also minimise the release of VOC's during the build.
- Siniat supports contractors during construction in areas relevant to Project Management credits, e.g. by minimising construction site impacts. Drawing on their vast experience with all building types, our projects team will support achievement of the best possible BREEAM.

HEALTH AND SAFETY

Siniat has a deep commitment to zero harm in our industrial activity. We follow an active policy for continuous improvement in reducing incidents and protecting our employees' health. In our supply chain we require similar exacting standards from our suppliers.

To protect the health of construction workers and building occupants, we minimise the use of any hazardous materials and will avoid using substances of high concern. Our development programme brings innovative products to market which reduce health and safety risks on site and throughout the life of the building.

CE MARKING

All Siniat GTEC products are CE marked in accordance with the EU Construction Products Regulation 2011/305/EC and the relevant harmonised European standard. This ensures that the essential requirements relevant to safety in use (e.g. reaction to fire or tensile strength) are type tested in accredited laboratories. Our ISO9001 quality management processes ensure continuing compliance. Declarations of Performance confiming compliance with CE marking to the Construction Products Regulation are available from www.siniat.co.uk/DoP.

MANUAL HANDLING

In collaboration with the Health & Safety Executive, Siniat has introduced weight labelling on all UK-produced board products. This information helps users to reduce injuries through risk assessment.

Example of product marking:



A range of mechanical handling aids for plasterboard lifting and positioning is commercially available to reduce the risk of injury. Please contact Technical Services for further information.

CHEMICAL SUBSTANCES AND PRODUCT SAFETY

Siniat ensures that all materials in its supply chain are registered under REACH^{*} where necessary. We have also registered directly as a producer of calcium sulphate, the main raw material used in our products; evidence and our REACH registration number is available on request.

Siniat board products do not contain or emit volatile organic compounds (VOCs) and our pre-finished Megadeco Board removes the need for on-site sealing, further enhancing the indoor air quality of your projects.

The sealing products in the Siniat GTEC range have an aqueous base and contain VOCs at the lowest classification level under the current regulations (<30g/litre).

All GTEC products are classified as non-hazardous according to the CLP (EU) Regulations and are stable and non-reactive with other building materials.

The sawing of plasterboard and the sanding of finishing compounds may generate dust. Whilst there are no known toxicological effects for gypsum products, Occupational Exposure Limits (OEL) exist for mineral dusts and the use of personal protective equipment is recommended.

Safety Data Sheets are available for all GTEC products covering handling, storage, use and disposal. Latest versions may be downloaded from our website or obtained on request from our Technical Services.

*European Regulation 2006/1907/EC on the Regulation, Evaluation, Authorisation and Restriction of Chemicals.

STANDARDS

GTEC PRODUCT STANDARDS AND TESTS

BS EN 520

Gypsum plasterboards. Definitions, Requirements and Test Methods.

BS EN 14190

Gypsum plasterboard products from reprocessing. Definitions, Requirements and Test Methods.

BS EN 13950

Gypsum plasterboard thermal/acoustic insulation composite panels. Definitions, Requirements and Test Methods.

BS EN 15283

Gypsum boards with fibrous reinforcement – Definitions, Requirements and Test Methods.

• Part 1: Gypsum board with mat reinforcement

BS EN 14195

Metal framing components for gypsum plasterboard systems. Definitions, Requirements and Test Methods.

BS EN 14566

Mechanical fasteners for gypsum plasterboard systems. Definitions, Requirements and Test Methods.

BS EN 14353

Metal beads and feature profiles for use with gypsum plasterboards. Definitions, Requirements and Test Methods.

BS EN 14209

Preformed plasterboard cornices. Definitions, Requirements and Test Methods.

BS EN 13963

Jointing materials for gypsum plasterboards. Definitions, Requirements and Test Methods.

BS EN 14496

Gypsum based adhesives for thermal/acoustic insulation composite panels and plasterboards. Definitions, Requirements and Test Methods.

BS EN 13964

Suspended Ceilings – Requirements and Test Methods.

SYSTEMS / DESIGN / CODES OF PRACTICE

BS 8212

Code of practice for dry lining and – Partitioning using gypsum plasterboard

BS 8000

Workmanship on building sites

• Part 8: Code of practice for plasterboard – Partitions and dry linings

BS EN 13914

Design, preparation and application of external rendering and internal plastering

BS 5234

Specification for performance requirements for strength and robustness

• Part 1: - Partitions (including matching linings) - Code of practice for design and installation

BS 5250

Code of $\ensuremath{\mathsf{Practice}}$ for the control of condensation in buildings

BS 5385

Wall and floor tiling – Code of practice

- Part 1: Design and installation of ceramic, natural stone and mosaic wall tiling in normal conditions
- Part 4: Design and installation of ceramic and mosaic tiling in special conditions

BS EN ISO 6946

Building components and building elements. Thermal resistance and thermal transmittance. Calculation method.

BS 9999: 2008

Code of Practice for fire safety in the design, management and use of buildings $% \label{eq:code} \end{tabular}$

TEST METHODS

BS EN 13238

Reaction to fire tests for building products. Conditioning procedures and general rules for selection of substrates.

BS 476

Fire tests on building materials and structures. Guide to the principles, selection, role and application of fire testing and their outputs.

- Part 4: Non-combustibility test for materials
- Part 6: Method of test for fire propagation for products
- Part 7: Method for classification of the surface spread of flame of products
- Part 20: Methods for determination of the fire resistance of elements of construction (general principles)
- Part 21: Method for determination of the fire resistance of loadbearing elements of construction
- Part 22: Methods for determination of the fire resistance of non-loadbearing elements of construction
- Part 23: Methods for the determination of the contribution of components to the fire resistance of a structure

BS EN 1363

- Fire resistance tests. General requirements.
- Part 1: General requirements

BS EN 1364

- Fire Resistance tests for non-loadbearing elements.
- Part 1: Walls
- Part 2: Ceilings

BS EN 1365

- Fire Resistance tests for loadbearing elements.
- Part 1: Walls
- Part 2: Floors and Roofs
- Part 3: Beams
- Part 4: Columns

ENV 13381

Test methods for determining the contribution to the fire resistance of structural members.

• Part 4: Test methods for determining the contribution to the fire resistance of structural members

MISCELLANEOUS

BS EN 13279

Gypsum binders, and gypsum plasters.

- Part 1: Definitions and requirements
- Part 2: Test methods

BS EN 10346

Continuously hot-dip coated steel flat products. Technical delivery conditions.

BS 12524

Building materials and products. Hygrothermal properties. Tabulated design values.

BS EN 1313

Round and sawn timber. Permitted deviations and preferred sizes. • Part 1: Softwood sawn timber

BS EN 13163

Thermal insulation products for buildings. Factory made products of expanded polystyrene (EPS). Specification.

BS EN ISO 10140

Acoustics. Laboratory measurement of sound insulation of building elements.

BS EN ISO 140

Acoustics. Measurement of sound insulation in buildings and of building elements.

BS 5234

Specification for performance requirements for strength and robustness.

 Part 2: Partitions (including matching linings) – Specification for performance requirements for strength and robustness including methods of test

BS EN ISO 717

Acoustics. Rating of sound insulation in buildings and of building elements.

- Part 1: Airborne sound insulation
- Part 2: Impact sound insulation

BS EN ISO 11654

Acoustics. Sound absorbers for use in buildings. Rating of sound absorption.

BS EN 13823

Reaction to fire tests for building products. Building products excluding floorings exposed to the thermal attack by a single burning item.

BS EN ISO 1182

Reaction to fire tests for building products. Non-combustibility test

BS EN ISO 1716

Reaction to fire tests for products. Determination of the gross heat of combustion (calorific value).

BS EN ISO 11925

Reaction to fire tests. Ignitability of products subjected to direct impingement of flame.

• Part 2: Single-flame source test

BS EN 13164

Thermal insulation products for buildings. Factory made products of extruded polystyrene foam (XPS). Specification.

BS EN 13165

Thermal insulation products for buildings. Factory made rigid polyurethane foam (PUR) products. Specification.

BS EN ISO 12572

Hygrothermal performance of building materials and products. Determination of water vapour transmission properties.

NOTE: Standards are listed without publishing year to allow for updates, where applicable the latest dated versions should be used.

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FLOORS AND CEILINGS

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acoustic board see Acoustic Homespan Board; dB Board; LaDura; Universal; Megadeco

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PENARTH LEARNING COMMUNITY PENARTH, WALES, UK

Sector: Education Project Value: £48 million Client: Vale of Glamorgan Council Architect: HLM

Main Contractor: Bouygues UK Sub Contractor: M & P Contractors Wales Ltd / Neath Dry Lining

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Siniat Innovations: Megadeco, Pregybel

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