

# Promat



Compartmentation

# Promat SYSTEMFLOOR™ -FR

## Lightweight Solutions for Fire Resistant Floor Assemblies

Technical manual



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**etex** inspiring ways  
of living

**Promat SYSTEMFLOOR™-FR**  
is the latest development in  
fire resistance board systems from  
Promat the leader in innovation  
for passive fire protection  
products and systems



Promat is the leading passive fire protection, thermal and acoustic insulation brand that will never compromise on safety. We provide a comprehensive portfolio of certified and tested products and systems to design and develop a fully reliable fire safety solution for your building project. With over 60 years of experience and know-how, we are ready to assist you in protecting people, buildings, and assets.

Promat brand has been synonymous with quality and reliability, offering sustainable solutions that protect lives and assets, enhance comfort, optimise processes, and reduce the loss of space and energy. We strive to offer you the absolute best solutions, customised support, and optimal use of our expertise to tackle your challenges. We continue to lead the way in the development of new fire protection solutions that will make new, lightweight construction methods safe for tomorrow's generation.

Promat is a brand of Etex Group, a worldwide building materials expert specialising in lightweight construction solutions in five core business segments: building performance, exteriors, industry, insulation, and new ways.

Etex has over 116 years of expertise, having been formed in 1905. Etex currently operates more than 140 facilities, including plants, quarries, and offices, in 45 countries, employing over 13,5000 people worldwide.

Promat in Australia has over 30 years of experience in research and development, designing and manufacturing a range of products and systems that are tested in compliance with Australian and International fire regulations.

The extensive technical competence and complete variety of passive fire safety solutions have won trust in a number of key projects in Australia, as shown below:

**Brisbane:** Legacy Way Tunnel, Millenium Arts Centre, Brisbane Square, the Brisbane International Terminal Extension, INB5, INB3 & INB1, Harrogate Tunnel, The new Airport link tunnel and the Gold Coast Casino development.

**Adelaide:** SAHMRI, New Royal Adelaide Hospital, Adelaide Oval, Australian Submarine Corporation, Adelaide University and the Desalination Plant, Sky City Expansion and Calvary Hospital.

**Melbourne:** Royal Children's Hospital, Southern Cross Station, Eureka Tower, ANZ - Docklands, Myer Centre - City and Mornington on Tanti, Australia 108 and Flemington Race Course.

**Sydney:** Barangaroo, Macquarie Bank - King St wharf and Westfield's Centrepoint, Crown Sydney and The Ribbon.

**Perth:** Fionna Stanley Hospital, Perth Arena and Burswood Casino.

**Darwin:** Darwin Convention & Exhibition Centre.

Promat's products are strongly supported by our extensive technical knowledge and experience in the fire protection industry from Promat's headquarters and manufacturing facility in Adelaide, as well as our sales and distribution centres in Sydney, Melbourne, Brisbane, Perth, Darwin and New Zealand. The Company is service driven and derives its great strength by providing solutions to all types of passive fire problems encountered during construction of Commercial, Health Care, Industrial and Special Purpose buildings by servicing Architects, Engineers, Councils, Consultants, Builders and its valued installation contractor customers.

# Promat

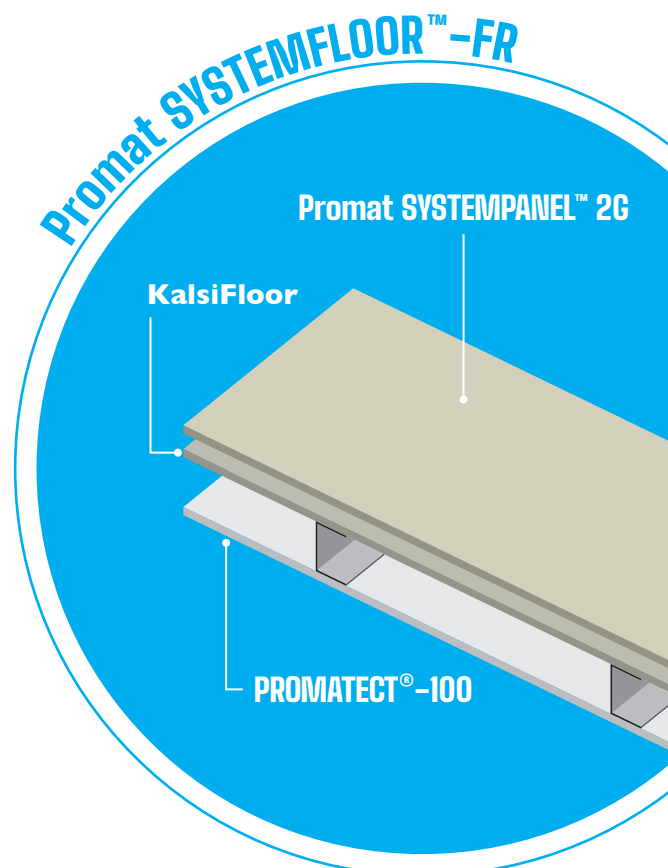


## Promat SYSTEMFLOOR™-FR Fire Resistance Flooring and Ceiling System

The Promat SYSTEMFLOOR™-FR is a unique floor/ceiling assembly that provides fire protection for both fire from above and below, while also carrying load. The system has actual fire tests for fire from either direction unlike many other systems on the market.

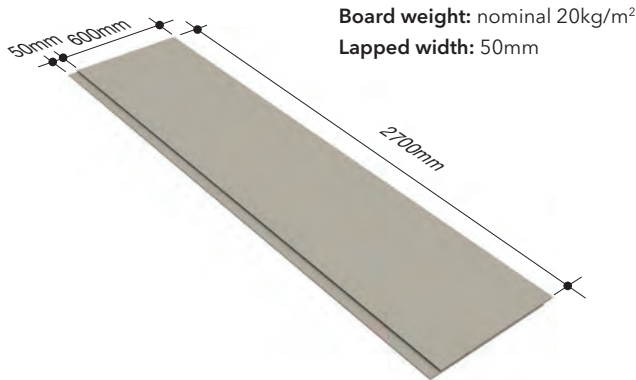
This system has approvals for FRL's ranging from 60/60/60 to 120/120/120. The floor system is based on a combination of Promat SYSTEMPANEL™ 2G board and 18mm thick fibre cement. While the ceiling uses our PROMATECT®-100 board. The thickness and number of layers is dependent on the Fire Resistance Level required. A variety of framing elements are approved including timber, LVL and steel.

Promat SYSTEMFLOOR™-FR is perfectly suited for standard or prefabricated modular construction techniques.



## Promat SYSTEMPANEL™ 2G

Matrix engineered mineral board



### Product description

Promat SYSTEMPANEL™ 2G is a non combustible matrix engineered mineral board reinforced with selected fibres and fillers. It is formulated without inorganic fibres and does not contain formaldehyde.

SYSTEMPANEL™ 2G has a 50mm overlapping system on the two long edges to allow modular continuity and excellent sealing at all joints.

Promat SYSTEMPANEL™ 2G is an innovative lightweight panel system which is economical, easy and fast to install. Promat SYSTEMPANEL™ 2G is manufactured to meet environmental standards.

Promat SYSTEMPANEL™ 2G is resistant to the effects of moisture and will not physically deteriorate when used in damp or humid conditions but it is not recommend for use in external or wet areas unless waterproofed in accordance with Promat specifications.

It is recommended that panels are stored flat and in dry conditions and protected from water once installed. However if panels get wet or saturated they must be handled with care and allowed to dry out before being fully enclosed.

A health and safety data sheet is available from the Promat and, as with any other materials should be read before working with the board.

### Compliance with the building code

This systems has tested and assessed in accordance with AS1530.4:2014. However, the suitability of use of lightweight construction in your project should be confirmed with the authority having jurisdiction before being installed.

### Fire Resistant Applications

→ Floors

Material properties	
<b>General description</b>	Matrix Engineered Mineral Board
<b>Surface condition</b>	Front face: smooth Back face: sanded
<b>Nominal dry density</b> (average) (BS EN 323)	1000kg/m <sup>3</sup>
<b>Emission test</b> (to ASTM D5116-90 for Green Label Singapore)	Within limits set out by the Singapore Environment Council
<b>Moisture Content</b> (BS EN 322)	Approx. 8%
<b>Alkalinity</b>	pH 9
<b>Coefficient of expansion</b>	-7.5 x 10 <sup>-6</sup> m/mk
<b>Thickness tolerance</b>	-0.5mm, +1mm (standard board thickness)
<b>Dimension tolerance</b>	±5mm (standard board dimensions)

Static Values			
<b>Modulus of Elasticity E</b> (BS EN 310)	<b>Flexural Strength F</b> (BS EN 310)	<b>Tensile strength T</b> (BS 5669: Part 1)	<b>Compressive strength <sup>⊥</sup></b> (BS 5669: Part 1)
Longitudinal: 4599N/mm <sup>2</sup> Transverse: 3817N/mm <sup>2</sup>	Longitudinal: 7.52N/mm <sup>2</sup> Transverse: 5.15N/mm <sup>2</sup>	Longitudinal: 5.99N/mm <sup>2</sup> Transverse: 5.17N/mm <sup>2</sup>	7.76N/mm <sup>2</sup>

Reaction to Fire & Thermal Properties		
<b>Combustibility</b> (AS1530.1)	<b>Surface burning</b> (BS 476: Part 6 & 7)	<b>Thermal conductivity</b> (ASTM C518)
Non-combustible	Class 0	0.136W/m <sup>2</sup> K

## Promat SYSTEMPANEL™ 2G

Matrix engineered mineral board

	115mm Diameter Load Applicator (kN)	350mm <sup>2</sup> Diameter Load Applicator (kN)
	<b>Joist Centres (mm)</b>	
System tested	450mm	450mm
SYSTEMPANEL™ 2G + 18mm Fibre cement	6.93	4.43

NOTE 1: Standards and codes may determine that higher loads may need to be considered. A registered structural engineer should be consulted in these instances.

NOTE 2: These tests satisfy the requirements for ultimate limit states.

NOTE 3: Promat SYSTEMPANEL™ 2G is not a finished product and should always have a floor covering applied to stop mechanical damage and an approved waterproofing system if used in areas where water is present.

Standard thickness	Standard dimension*	Module dimension	Weight	Total board weight
18mm	650mm x 2700mm	600mm x 2700mm	18kg/m <sup>2</sup>	30kg

\*The properties in above tables are mean values given for information and guidance only. If certain properties are critical for a particular application, it is advisable to consult Promat. Promat SYSTEMPANEL™ 2G board is manufactured under a quality management system certified in accordance with ISO 9001: 2015 Certification.

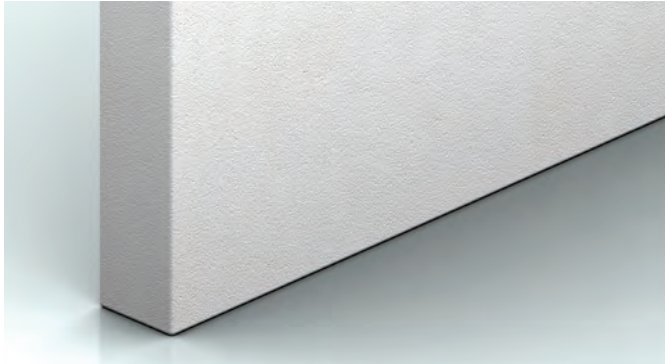
### Health and safety

When machining the Promat SYSTEMPANEL™ 2G product, airborne dust may be released, which may be hazardous to health. Do not inhale the dust. Avoid contact with skin and eyes. Use dust extraction equipment. Respect regulatory occupational exposure limits for total inhalable and respirable dust. A health and safety data sheet is available from Promat and, as with any other material, should be read before working with the product.

Promat SYSTEMPANEL™ 2G product is not classified as a an environmental hazard so no special provisions are required regarding the transportation and the disposal of the product to landfill. The product can be placed in on-site rubbish skips with other general building waste which should then be disposed by a registered contractor in the appropriate and approved manner.

## PROMATECT®-100

PROMAXON® mineral board



### Product description

PROMATECT®-100 comprises autoclaved calcium silicate spheres (PROMAXON® is a synthetic hydrated calcium silicate in spherical form) bound in a mineral matrix. PromaX® technology provides excellent fire performance in most applications.

PROMATECT®-100 is off-white in colour. One face is smooth and ready to form a finished surface, able to receive almost any form of architectural/finish treatment. The reverse face is sanded.

PROMATECT®-100 is resistant to the effects of moisture and will not physically deteriorate when used in damp or humid conditions. Performance characteristics are not degraded by age or moisture. However, PROMATECT®-100 is not designed for use in areas subject to continual damp or high temperatures. PROMATECT®-100 is for internal applications only.

Material properties	
<b>General description</b>	PROMAXON® mineral board
<b>Surface condition &amp; appearance</b>	Off white colour Front face: smooth Back face: sanded
<b>Nominal dry density (average)</b>	850kg/m <sup>3</sup>
<b>Moisture Content</b>	Approx. 12.72% The moisture content varies and will reach an equilibrium over time with the atmospheric relative humidity of the environment
<b>Alkalinity</b>	Approx. pH 9
<b>Thickness tolerance</b>	±0.5mm (standard thickness board)
<b>Dimension tolerance</b>	±0-3mm (standard board dimensions)

### Fire Resistant Applications

- Structural Steel Protection
- Partition & External Walls
- Ceilings & Floors
- Access Panels & Hatches

Static Values		
Flexural Strength F	Tensile strength T	Compressive strength $\perp$
Longitudinal: 4.5N/mm <sup>2</sup>	Longitudinal: 1.02N/mm <sup>2</sup> Transverse: 0.98N/mm <sup>2</sup>	5.99N/mm <sup>2</sup>

Reaction to Fire & Thermal Properties	
Combustibility (AS1530.1)	Thermal conductivity
Non-combustible	0.164W/m <sup>2</sup> K



## PROMATECT<sup>®</sup>-100

PROMAXON<sup>®</sup> mineral board

Standard thickness	Standard dimension	Number of boards per pallet	Surface area per pallet	Weight of standard sheet	Weight per pallet
15mm	2500mm x 1200mm	25	75m <sup>2</sup>	Approx. 40.4 kg	Approx. 1010kg
20mm	2500mm x 1200mm	20	60m <sup>2</sup>	Approx. 53.5 kg	Approx. 1070kg

All physical and mechanical values are averages based on standard production and tested according to internal procedures. The typical values are given for guidance. The figures can change dependent on the test methods used. If a particular value is of prime importance for a specification, please consult Promat Technical Department.

## Working with the boards

### Cutting & Sawing

Promat SYSTEMPANEL™ 2G and PROMATECT®-100 can be worked with conventional woodworking equipment although the use of hand saws with hardened teeth is recommended. Boards may be more easily cut using a power circular saw with a tungsten carbide tipped blade, or a jigsaw. Use of diamond tip blades is also allowable and will extend the life of cutting tools.

Promat recommends that all cutting be carried out in well ventilated spaces, using dust extraction facilities. Operators should wear protective face masks at all times. For cutting of Fibre Cement, manufacturers recommendations should be followed.

### Drilling

Drilling can be carried out either by hand drill or any conventional power drill with or without dust extraction. For best results, the boards should be firmly supported behind the location of the holes. Generally when working on Promat board products, the use of drills with point angles of 60° to 80° rather than the more usual 120° type, are preferable and more efficient.

### Nailing

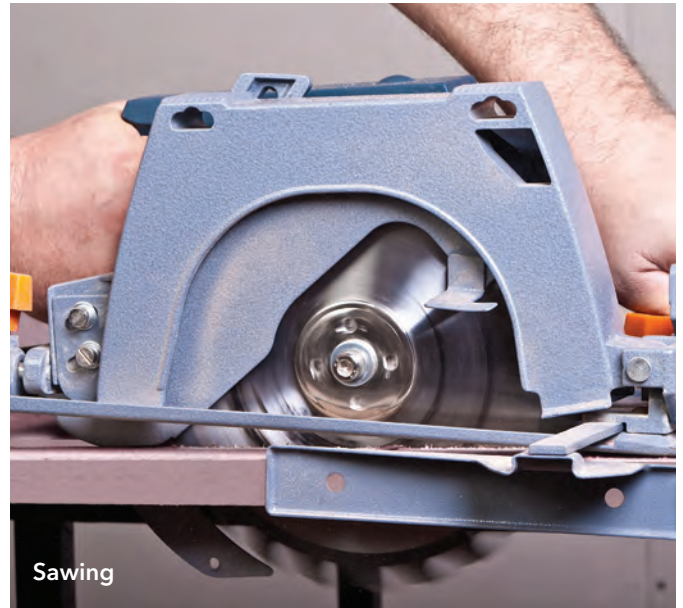
Pneumatic or gas powered nail guns may be used to fix the floor layers of this system. Manual nailing is also acceptable. Care should be taken to ensure nail head is not driven more than 0.5mm below the surface of the board.

### Fixing

Panels should be supported and fixed as per the system specification (See pages 12 to 13).

### Planing & Sanding

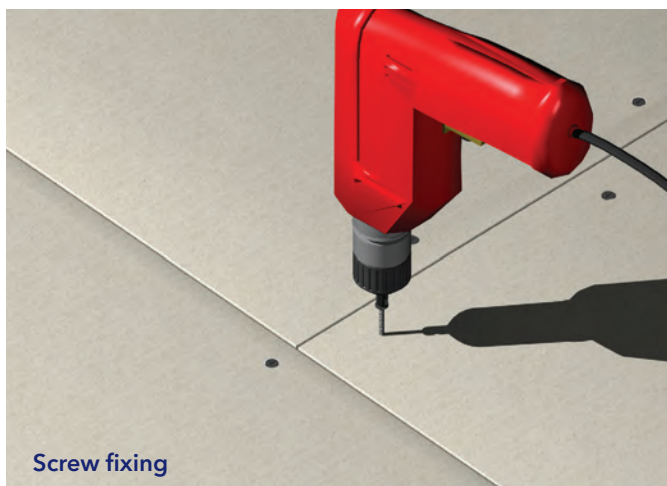
The edges of the boards can be planed or smoothed with a surform, rasp or file. Use conventional glass papers for sanding.



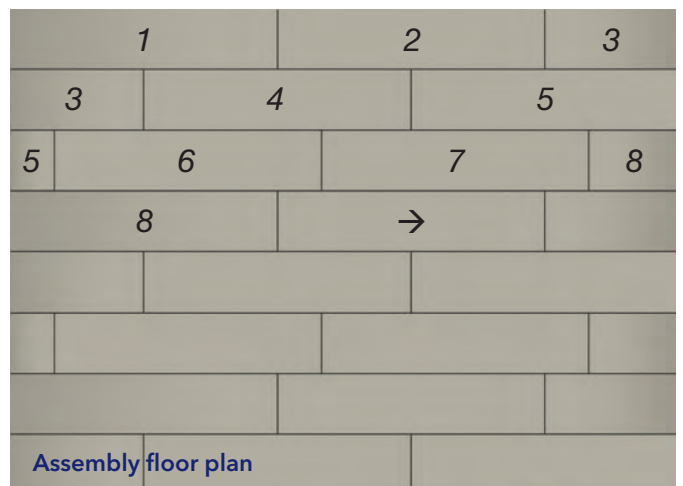
Sawing



Drilling



Screw fixing



Assembly floor plan

## Handling & Storage

Carry boards on edge, and do not drop on their corners. Promat SYSTEMPANEL™ 2G and PROMATECT®-100 should be stored under cover on a flat base, clear of the ground. If stored on racks, boards should be fully supported across their width at not more than 1m centres. The following recommendations must be always taken into account when handling Promat SYSTEMPANEL™ 2G and PROMATECT®-100.

### Lifting

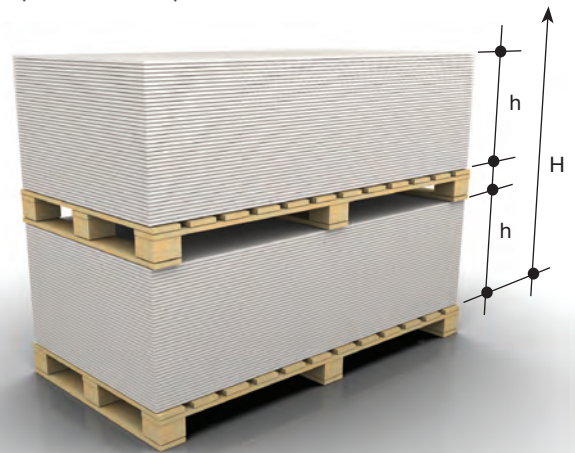
Always lift boards off the board below, never slide board on board or drag the stack as this could mark the surface of the lower board.



Lifting Promat SYSTEMPANEL™ 2G or PROMATECT®-100 board

### Stacking

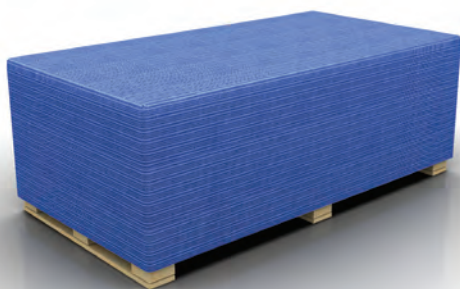
Boards should be stacked a maximum of 800mm high ( $h \leq 800\text{mm}$ ), on firm level ground. If two or more pallets are stacked, the total stack height must be not more than 2100mm ( $H \leq 2100\text{mm}$ ).



Maximum height of stacking

### Protection

Boards should be stored under cover for protection against inclement weather on dry level ground, away from the working area of mechanical plant.



Complete storage of stacked and covered boards

### Carrying

Always carry the boards on edge but do not store on edge.



Carrying Promat SYSTEMPANEL™ 2G or PROMATECT®-100 board

## Health & Safety

No special precautions are necessary in handling or working. When power sawing or sanding in a confined space, dust extraction equipment must be used to control dust levels. Care should be taken to prevent injury from sharp edges and corners.

Do not leave boards lying about on site, on scaffolding or in high traffic areas, where risk of damage or injury is increased, and prevent any misuse which could result in personal injury or damage to boards. In the event of injury obtain proper medical treatment. The materials and the packaging used for distribution do not incorporate any substances considered to be hazardous to health.

## Promat SYSTEMFLOOR™-FR Fire and acoustic floor and ceiling system in lightweight construction for fire from either direction

For Buildings that require Type A Construction, the National Construction Code (NCC) of Australia requires horizontal fire separation between storeys. The Fire Resistance Level (FRL) required depends on the Class of Building in question.

Traditionally floor construction in multi level buildings have been in concrete and the fire resistance testing has always been carried out from the underside.

However there is a trend in Australia, driven by innovation, cost cutting and a flow of building methods from overseas that has seen an increase in the demand to use lightweight floor construction and lightweight cassette floor systems.

One of the fundamental purposes of fire protection in the NCC is that 'A building must have elements which will, to the degree necessary, avoid the spread of fire- in a building NCC, C1P2 (d).'

The 'Performance Requirements' in the NCC clearly state that 'A building must have elements which will, to the degree necessary, maintain structural stability during a fire.'

Research carried out by BRANZ (Building Research Association of New Zealand) show that fire attack from above a floor should be taken in to account in building design. The use of lightweight construction only highlights this issue.

Fire tests carried out by registered laboratories also show that fire rated load bearing lightweight floors did not always perform in a manner that would satisfy the requirements of the NCC.

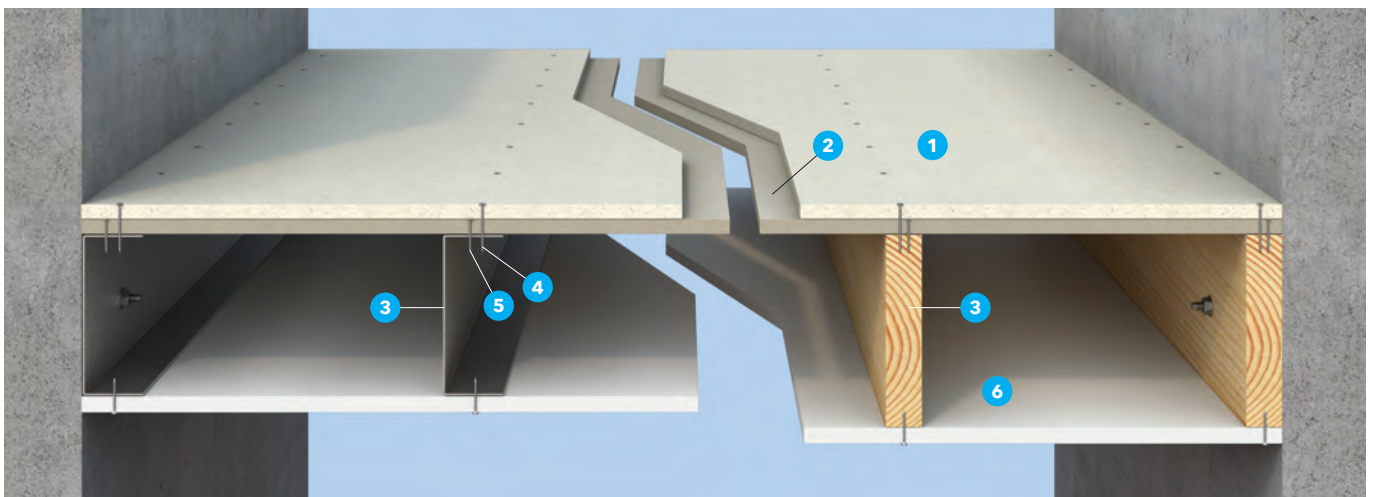
Promat set out to test floor systems that may have been expected and accepted to comply with the requirements of the NCC for horizontal fire separation for fire above and below and found that they did not.

Following much research and fire testing Promat is both proud and pleased to announce the introduction of a new floor/ceiling system design especially for the lightweight floor market that complies with fire and acoustic requirements for fire from either direction achieving FRL's of up to 120/120/120.

Promat believes that with the introduction of Promat SYSTEMFLOOR™-FR they have developed an economical solution to this problem.

The system uses Promat SYSTEMPANEL™ 2G together with 18mm Fibre Cement sheets on top of floor joists to give a load bearing floor.

The ceiling consist of various builds up of PROMATECT®-100 board depending on the Fire Resistance Level required.



1. One layer of Promat SYSTEMPANEL™ 2G 18mm thick, refer to table on next page.
2. 18mm KalsiFloor Fibre Cement (Or Equivalent), refer to next page.
3. Mild steel lipped C-Channel framework, timber or LVL joists as table on next page.
4. 50mm x 6g Self Tapping Screws at nominal 200mm centres.
5. 25mm Self Tapping Fibre Cement Screw at 400mm centres.
6. PROMATECT® 100 ceiling lining, refer to table on next page.

**Table 1 : System components**

FRL	Joist size (Minimum size)	Ceiling lining (Minimum)	Floor lining (Minimum)
60/60/60	Timber or LVL 240mm x 45mm (450mm or 600mm centres)	20mm thick PROMATECT®-100 <sup>Note1</sup>	18mm Promat SYSTEMPANEL™ 2G + 18mm KalsiFloor Fibre Cement (Or Equivalent)
	Steel Channel Min. 200mm x 65mm x 1.5mm (450mm or 600mm centres)		
90/90/90	Timber or LVL 240mm x 45mm (450mm or 600mm centres)	20mm thick PROMATECT®-100 <sup>Note1</sup>	18mm Promat SYSTEMPANEL™ 2G + 18mm KalsiFloor Fibre Cement (Or Equivalent)
	Steel Channel Min. 200mm x 75mm x 2.4mm (450mm centres)		
120/120/120	Timber or LVL 240mm x 45mm (450mm or 600mm centres)	2 x 15mm thick PROMATECT®-100	18mm Promat SYSTEMPANEL™ 2G + 18mm KalsiFloor Fibre Cement (Or Equivalent)
	Steel Channel Min. 200mm x 75mm x 2.4mm (450mm or 600mm centres)		

NOTE 1: 100mm wide cover strips of 20mm PROMATECT®-100 required for joints that are not backed by framing

**Table 2 : Scottdale Floor Truss sections**

Truss	Joist thickness (mm)	Joist spacing (centres)
6050 (300mm high)	0.75mm	600mm
		450mm
	0.95mm	600mm
		450mm

**Table 3 : Material fixing requirements**

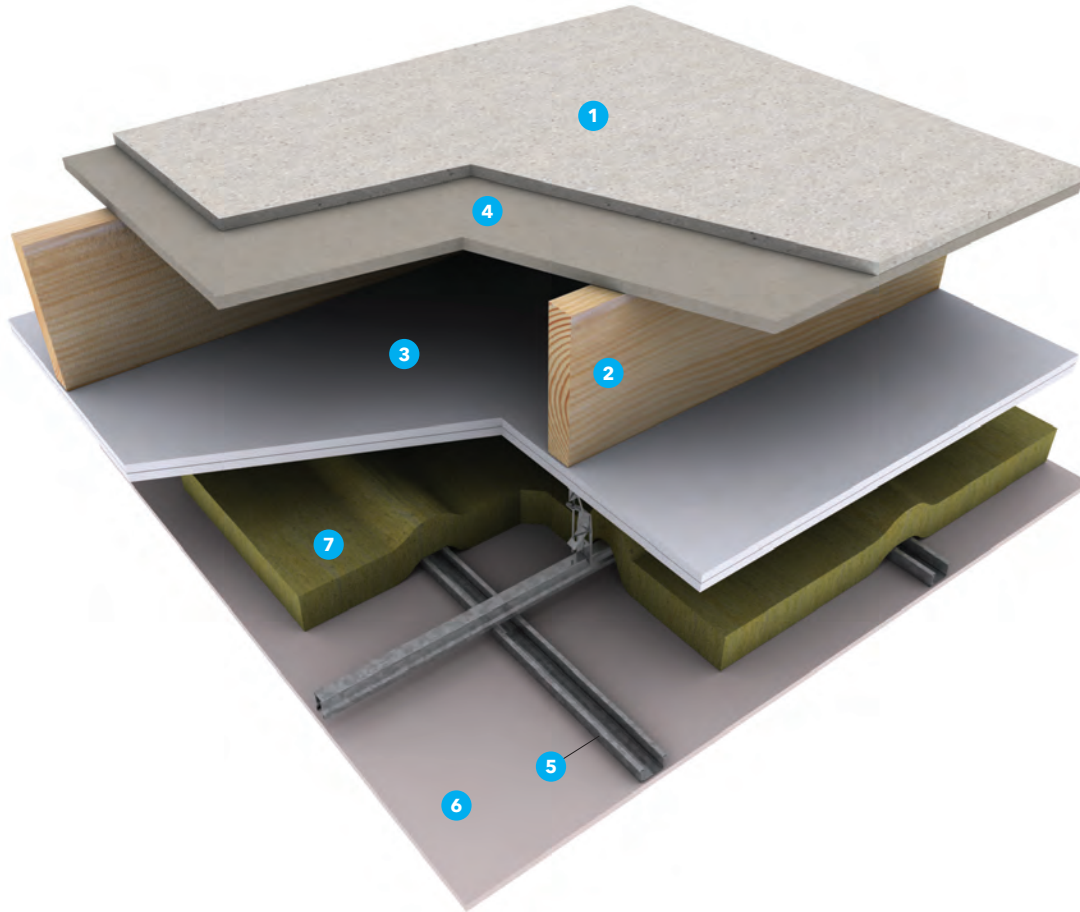
Floor	
Fibre cement to timber frame	50mm x 3mm nails & 400mm centres
Fibre cement to steel frame	25mm x 6g self-tapping screws @ 400mm centres
SYSTEMPANEL™ 2G to timber perimeter and frame	75mm x 3mm nails @ 200mm centres
SYSTEMPANEL™ 2G to steel perimeter and frame	50mm x 6g self-tapping screws @ 200mm centres
SYSTEMPANEL™ 2G lap joint	40mm x 7g screws @ 100mm centres

Ceilings		
120 minutes	PROMATECT®-100 to timber perimeter and frame	Layer 1 - 30mm x 6g bugle head screws @ 200mm centres
		Layer 2 - 50mm x 6g bugle head screws @ 200mm centres
	PROMATECT®-100 to steel perimeter and frame	Layer 1 - 35mm x 6g bugle head screws @ 200mm centres
		Layer 2 - 45mm x 6g bugle head screws @ 200mm centres
90 & 60 minutes	PROMATECT®-100 to timber perimeter and frame	30mm x 6g bugle head screws @ 200mm centres
90 minutes	PROMATECT®-100 to steel perimeter and frame	35mm x 8g bugle head screws @ 200mm centres
60 minutes	PROMATECT®-100 to steel perimeter and frame	35mm x 6g bugle head screws @ 200mm centres

Backing strips	
PROMATECT®-100 (100mm wide)	50mm x 12g Laminating screws @ 100mm

## Fire and Acoustic Floor/Ceiling System

Where additional acoustic rating are required for Airborne and Impact noise, additional insulation materials are included in the system as per figure below.



Minimum overall depth of system is 420mm.

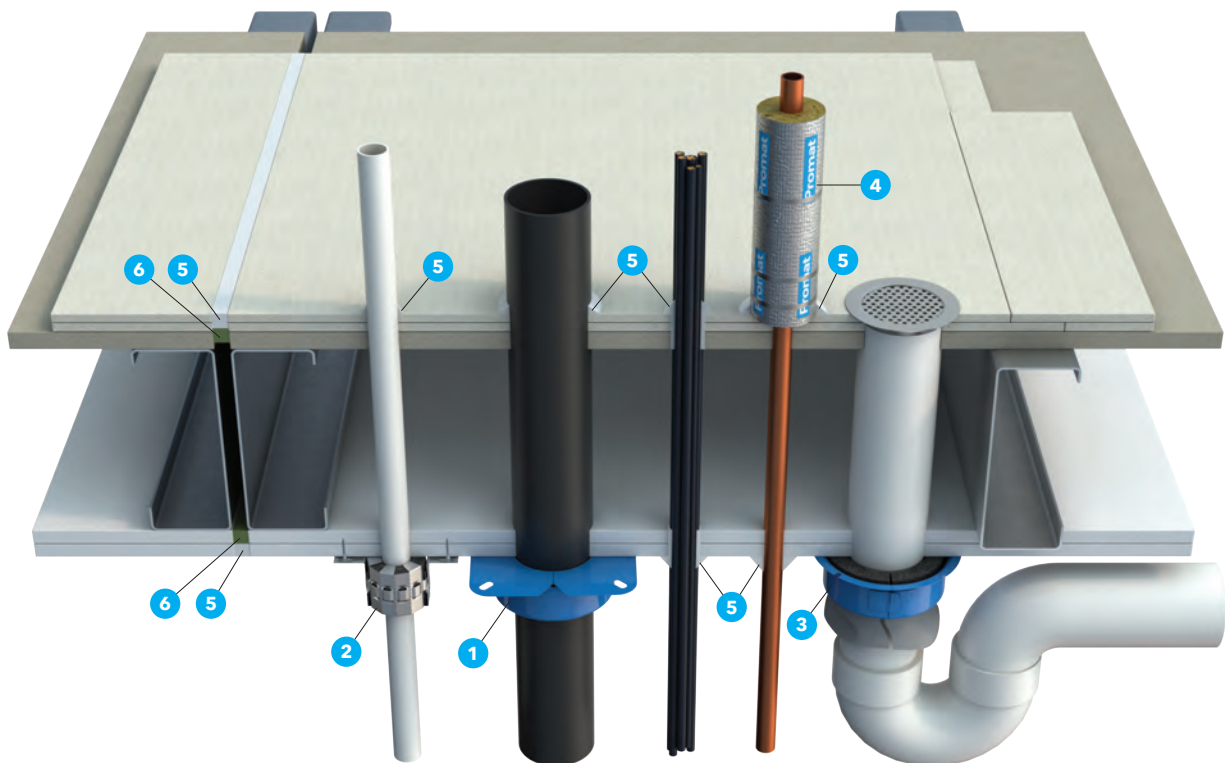
1. Promat SYSTEMPANEL™ 18mm thick.
2. 240mm x 45mm timber joists floor at 450mm centres.
3. PROMATECT® 2 x 15mm thick fire barrier.
4. Fibre cement sheet 18mm thick.
5. Rondo suspended ceiling system, including 25mm top cross rail and 28mm furring channel.
6. Fire resistant plasterboard ceiling 13mm thick.
7. CSR R2.0 SOUNDSCREEN batts installed in the cavity (nominal 100mm vertical depth of cavity).

Acoustic Performance Table	
Airborne	Impact
Rw: 59	Ln,w: 56
C: -2	Cl: 1
Ctr: -6	Ln, w + Cl: 57
Rw + Ctr: 53	

Margin of Error: +/- 3dB

## Fire stopping products for service penetrations

Service	Fire Stopping	FRL
40 to 150mm uPVC stack pipe	PROMASEAL® FC40 to FC150 Retrofit Collar	-/120/120
65 & 100mm HDPE stack pipe	PROMASEAL® FC65 & FC100	-/120/120
20mm PEX pipe	PROMASEAL® CFC32	-/120/120
100mm uPVC floor waste	PROMASEAL® FWR Retrofit Collar	-/120/120
6 x TPS electrical cables (3 x 2.5mm <sup>2</sup> cores)	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
2 x TPS electrical cables (3 x 2.5mm <sup>2</sup> cores) passing through the floor only	10mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
2 x TPS electrical cables (3 x 2.5mm <sup>2</sup> cores) passing through the ceiling only	10mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
6mm diameter steel threaded rod	50mm cone of PROMASEAL®-A Acrylic Sealant on floor and ceiling	-/120/120
20mm Copper Pipe (Type B)	400mm PROMASEAL® SupaWrap on top side only	-/120/120
20mm Copper Pipe (Type B) with 25mm thick FR Armaflex lagging	PROMASEAL® FC65 Retrofit Collar	-/120/120
3 x Single Core (150mm <sup>2</sup> ) + 1 Single Core (16mm <sup>2</sup> ) Electrical Cables	600mm PROMASEAL® SupaWrap on top side only + PROMASEAL®-A Acrylic to annular gaps (Top and bottom)	-/120/120
23 x 4.3mm OD Security Cables in 50mm hole	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
7 x 7.2mm OD Fire Sense Cables in 25mm hole	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
1 x Phone Cable + 1 x Fiberoptic in 25mm hole	25mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
16 x 7.2mm OD Fire Sense Cables in 40mm hole	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
24 x CAT6 Data Cables in 50mm hole	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
29mm OD Aluminium Core Cable in 32mm hole	25mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
16mm OD 4 C+E Electrical Cable in 25mm hole	50mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
20mm uPVC Conduit with 3 x TPS Cables	PROMASEAL® CFC32	-/120/120
25mm Steel Sprinkler Pipe (Through 35mm hole in Ceiling Side only)	15mm cone of PROMASEAL®-A Acrylic Sealant	-/120/120
15mm Wide Control Joint	PROMASEAL® IBS & 15mm thick PROMASEAL®-A Acrylic Sealant on top and bottom	-/120/120



1. PROMASEAL® FC Retrofit Collar.
2. PROMASEAL® CFC Conduit Collar.
3. PROMASEAL® FWR Retrofit Floorwaste Collar.
4. PROMASEAL® SupaWrap.
5. PROMASEAL®-A Acrylic Sealant.
6. PROMASEAL® IBS

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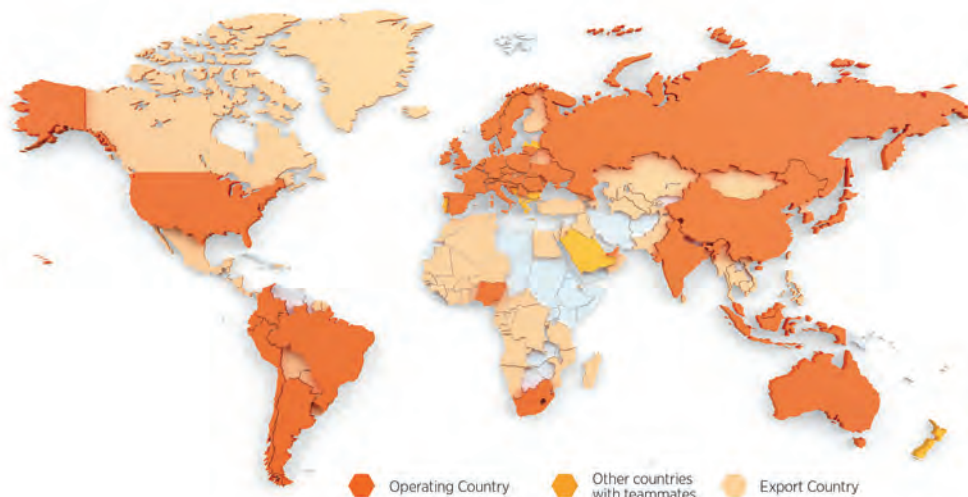
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## About Etex

Etex is an international building materials specialist; the company wants to inspire people around the world to build living spaces that are ever more safe, sustainable, smart and beautiful. Founded since 1905 and headquartered in Belgium, Etex currently operates more than 140 sites including plants, quarries and offices in 45 countries with over 13,500 employees globally.

Etex fosters a collaborative and caring culture, a pioneering spirit and a passion to always do better for its customers. Building on its experience and global market needs, the company strives to improve its customers quality of living with ever more effective lightweight solutions.

Its three R&D centres support four global sales divisions:

- Building Performance: Leader in plasterboards and fibre cement boards, and the global reference in passive fire protection solutions for the residential and commercial segments.
- Exteriors: Provider of innovative, durable, high performance and beautiful fibre cement exterior materials for architectural, residential and agricultural projects.
- Industry: Front runner of engineering expertise to drive the future of high performance thermal and acoustic insulation as well as passive fire protection in the industrial, aerospace and energy sectors.
- New Ways: New Ways offers high-tech, lightweight, factory-assembled panel and modular solutions based on timber and steel framing.

Etex is Inspiring Ways of Living, for more information, please visit our website: [www.etexgroup.com](http://www.etexgroup.com)