

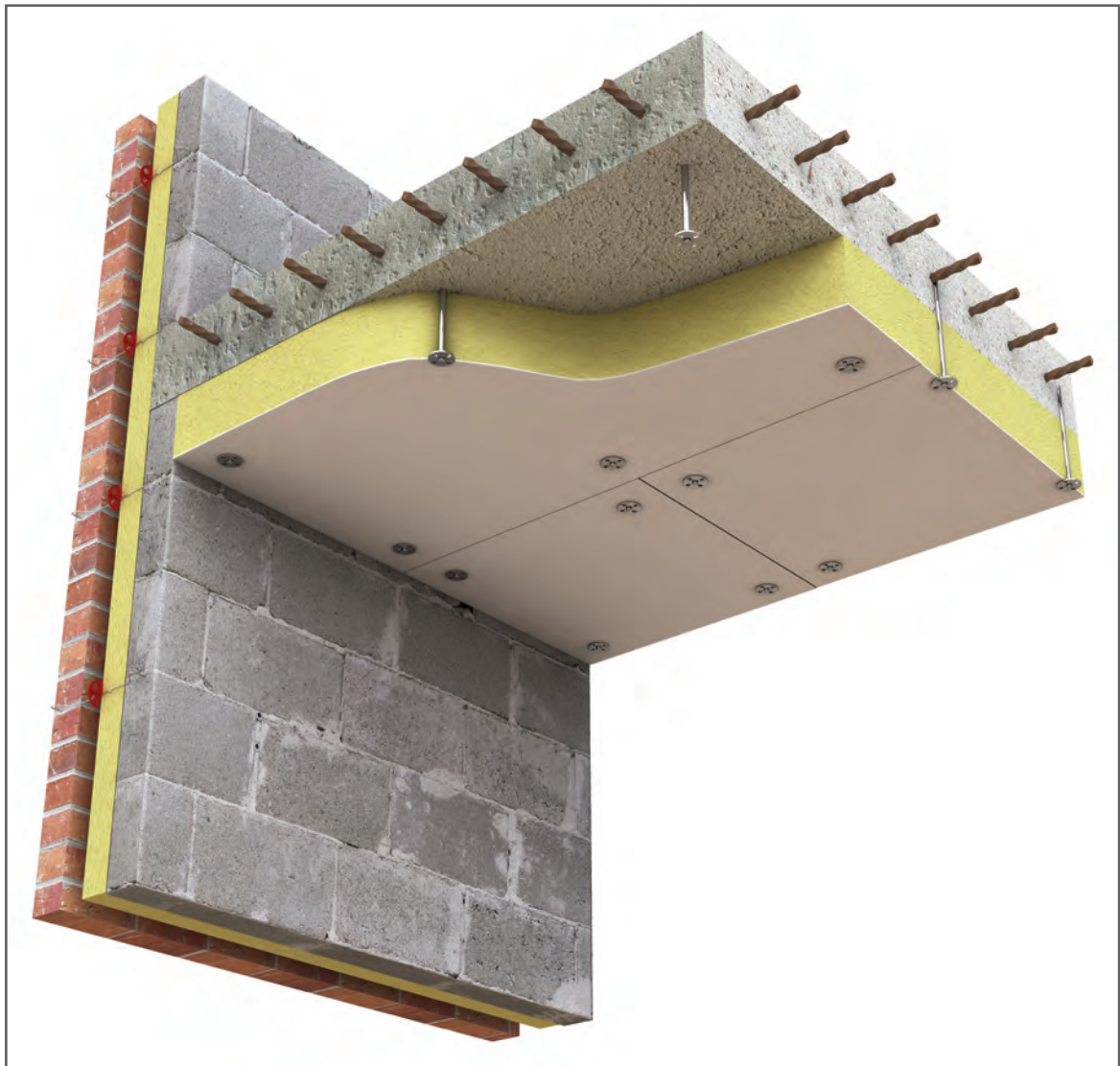
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**Promat**



# Promat TLFR Board®

Fire, Thermal and Acoustic Insulation for Concrete Soffits



## Promat TLFR Board® Introduction

There is an increasing requirement to upgrade the performance of semi-exposed concrete decks both in the conversion and refurbishment of existing buildings, and in new build constructions. Promat TLFR Board® is a calcium silicate board bonded to Rockwool stone wool insulation and is designed to be fixed to the underside of concrete floors to achieve high levels of fire, thermal and acoustic insulation.

Suitable for underground car parks and similar applications, Promat TLFR Board® combines the benefits of Promat calcium silicate technology with Rockwool's stone wool insulation to provide a cost effective insulation solution.

### FEATURES & BENEFITS

- Up to 180 minutes fire protection
- Excellent thermal and acoustic performance
- Non-combustible facing board and stone-wool insulation
- Impact and moisture resistant
- Ease of installation, maintenance and decoration
- Ideal for new build and refurbishment
- CFC and HCFC-free
- Enhanced BREEAM rating

### FIRE PROTECTION

Both the calcium silicate facing board and stone wool insulation elements of the system are non-combustible and have an A1 classification in accordance with BS EN 13501-1 and are non-combustible when tested to BS 476-4.

Promat TLFR Board® is tested in accordance with BS EN 1363-1: 1999 and ENV 13381-3: 2002 and provides up to 180 minutes fire protection to a structural concrete soffit.

### THERMAL INSULATION

When fitted to a 150mm concrete soffit, 136mm thick Promat TLFR Board® allows specifiers to achieve a thermal insulation performance of 0.25 W/m<sup>2</sup>K, meeting Part L of the Building Regulations. The more stringent requirement of 0.20 W/m<sup>2</sup>K can be achieved using the 166mm thick board. Promat TLFR Board® uses Rockwool stone wool insulation.

### EASE OF INSTALLATION

The Promat faced board offers an impact resistant surface which can be decorated to suit specific colour schemes. The stone wool core of the slab can be fixed to uneven surfaces without creating air-gaps which may affect thermal performance, while maintaining the aesthetic line and level of the ceiling.

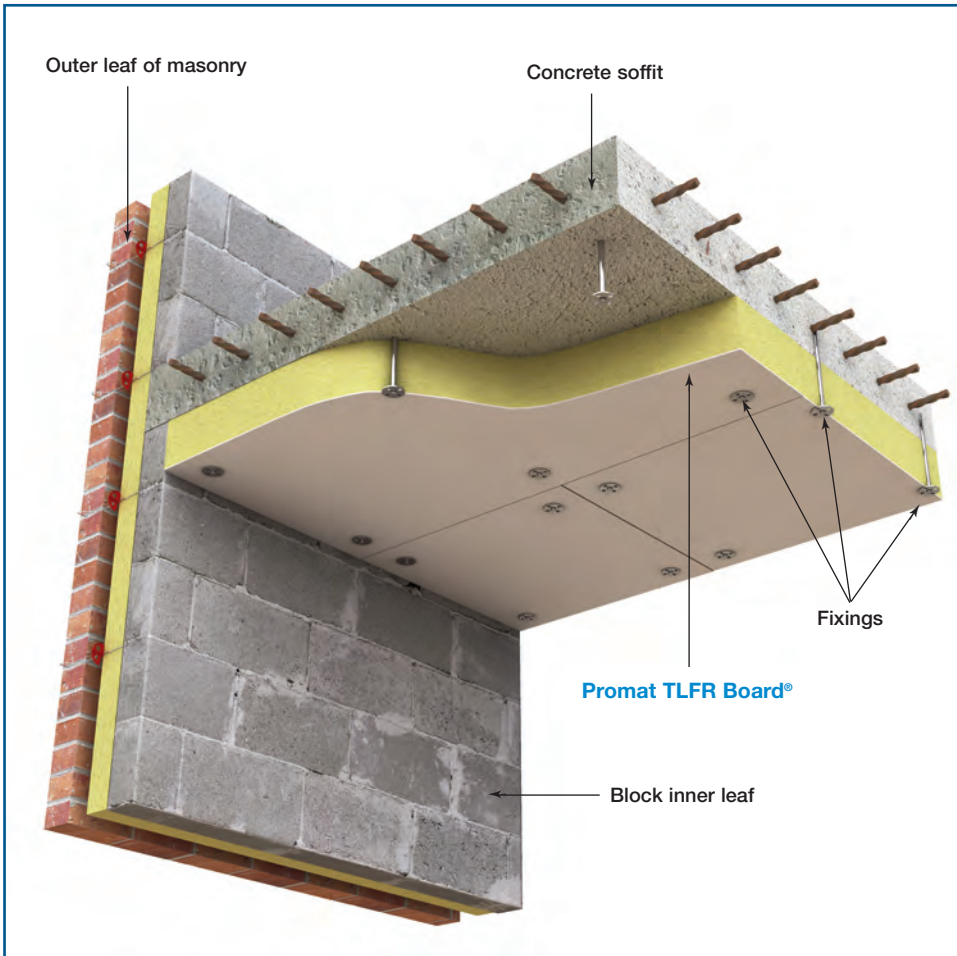
### ENVIRONMENTAL RATING

Rockwool's stone wool insulation relies on entrapped air for thermal insulation properties and does not contain gases that have Ozone Depletion Potential (ODP) or Global Warming Potential (GWP). Promat TLFR Board® therefore complies with the relatively modest threshold of GWP <5 specified in documents such as the Code for Sustainable Homes.





# Promat TLFR Board® Design Detail & Properties



**TYPICAL DESIGN DETAIL**

TYPICAL PROPERTIES	
Panel Size (mm)	1200 x 600
Panel Thicknesses (mm)	136, 166
Density (kg/m <sup>3</sup> )	Facing board Stone wool
	1300 kg/m <sup>3</sup> 85 kg/m <sup>3</sup>
Reaction to Fire Classification	A1 non-combustible
Fire Rating (minutes)	136mm: 180    166mm: 180
Thermal Performance, (U-values W/m <sup>2</sup> K)*	136mm: 0.25    166mm: 0.20
Finish	Natural off-white colour

\* U-value calculation based on fixing to a 150mm concrete soffit, result dependant on fixing type. Contact Promat UK Customer Relations Team for more information.

## Promat TLFR Board® Installation

### INSTALLATION AND FIXING METHODS

When fixing a tile or modular system, it is advisable to start with a focus reference slab in the centre of the soffit with subsequent slabs being fixed working towards each edge. The use of string lines or laser alignment equipment will assist in ensuring alignment and squareness of the installation.

Diagram A – Section View of Direct Fix

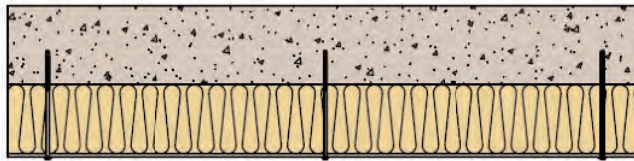
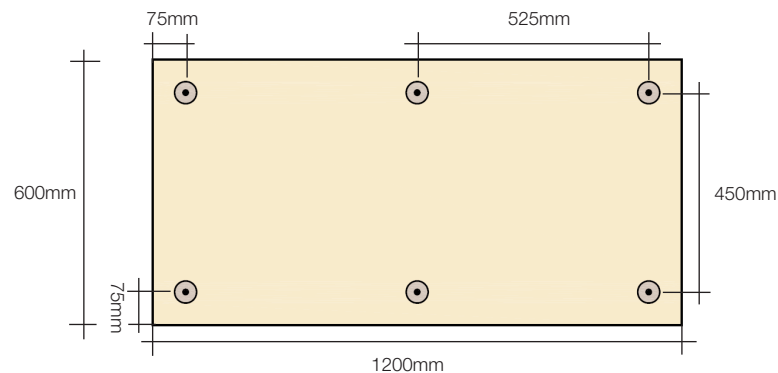


Diagram B – Plan View of Fixing Locations



#### Installation Data

<b>Fixings</b>	ITW Spit Isomet hammer fixings, with 11 x 70mm steel washer plate (136mm Promat TLFR Board® only) or ITW RoofGrip (HRG200) fixings with 50mm washers.
<b>Fixing Centres</b>	See above Diagram B
<b>Edge Spacing</b>	Minimum 75mm from edge. Minimum 75mm from corner
<b>Fixings/m<sup>2</sup></b>	8.33
<b>Fixing Method</b>	Pre-drill Promat TLFR Board® and concrete to a depth of 5mm more than the anchor length. Insert fixing and hammer or screw tight to "line and level". Care should be taken not to over-tighten fixings to prevent damage to slab surface.



## Promat TLFR Board® Additional Information

### SERVICES

Surface mounted services must be fixed back to the concrete soffit and not fixed directly on to Promat TLFR Board®. In order to reduce risk of damage where services are being installed after the Promat TLFR Board® has been fixed, a M10 x 150mm long stub drop rod hanger grid system should be used (available via M & E Services). For further advice contact Promat Customer Relations Team on 01344 381400.

### MAINTENANCE

Promat TLFR Board® does not require maintenance. Surface damage can be repaired with proprietary fillers.

### STORAGE AND HANDLING

Store boards under cover on a flat, even base. If dunnage blocks are used, the boards must be fully supported across their width at no more than 600mm intervals with a minimum 100mm bearing. Boards should always be lifted and not dragged across each other. Boards should be carried on edge. Avoid corner damage and scratching. Boards must not be stored on edge or leant upright.

### QUALITY MANUFACTURE

The manufacturing and production systems of Promat operate under a rigorous quality management system certified as complying with BS EN ISO 9001:2008.

### BIOLOGICAL

Promat TLFR Board® is resistant to mould growth, most chemicals, and attack by rodents and insects.

### TYPICAL SPECIFICATION CLAUSE

The insulation of the concrete soffit is to be Promat TLFR Board® xxx mm thick, as manufactured by Promat UK Limited of Bracknell, RG12 2TD and installed in accordance with the manufacturers recommendations.

### SUPPLY

Available from Insulation Distributors throughout the UK and Ireland.

## ADDITIONAL CONTACT NUMBERS

**CUSTOMER RELATIONS TEAM:  
COMMERCIAL & 1ST LINE TECHNICAL**  
*(Orders, deliveries, availability and general technical enquiries)*

Telephone: 01344 381 381 Fax: 01344 381 380  
E-mail: salesuk@promat.co.uk

**MARKETING SERVICES**  
*(Literature and Samples)*

Telephone: 01344 381 350 Fax: 01344 381 401  
E-mail: marketinguk@promat.co.uk

## HEALTH AND SAFETY

All the requirements of the Health and Safety at Work Act should be met as well as any general or specific regulations applying to the area where the boards are being installed. When moving boards, protective gloves and footwear are recommended. No special precautions are necessary when handling or working but, when using power saws or sanders, dust extraction equipment must be used to control dust levels required. A Safety Data Sheet is available for Promat TLFR Board®.

**Promat**



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