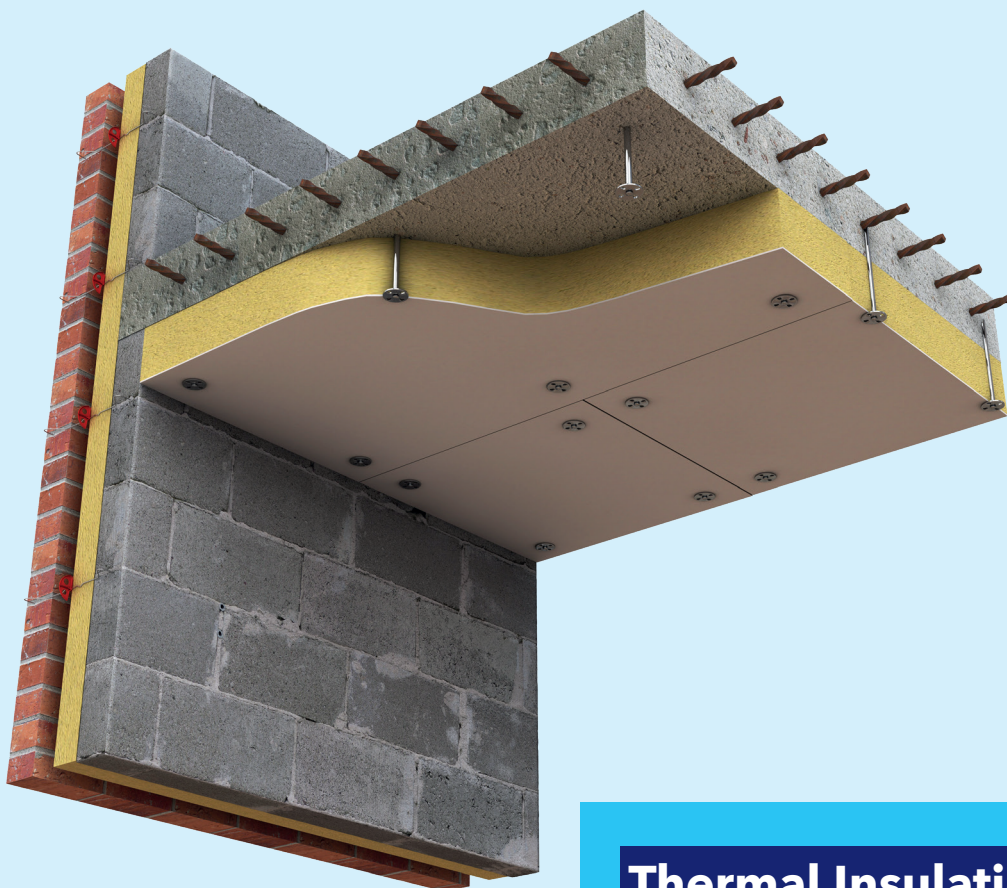


TLFR BOARD[®]



**Thermal Insulation
for Concrete Soffits**

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 stone wool insulation and is designed to be fixed to the underside of concrete floors to achieve high levels of thermal insulation.

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

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.

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/m2K, meeting Part L of the Building Regulations. The more stringent requirement of 0.20 W/m2K can be achieved using the 166mm thick board. Promat TLFR Board® uses 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.

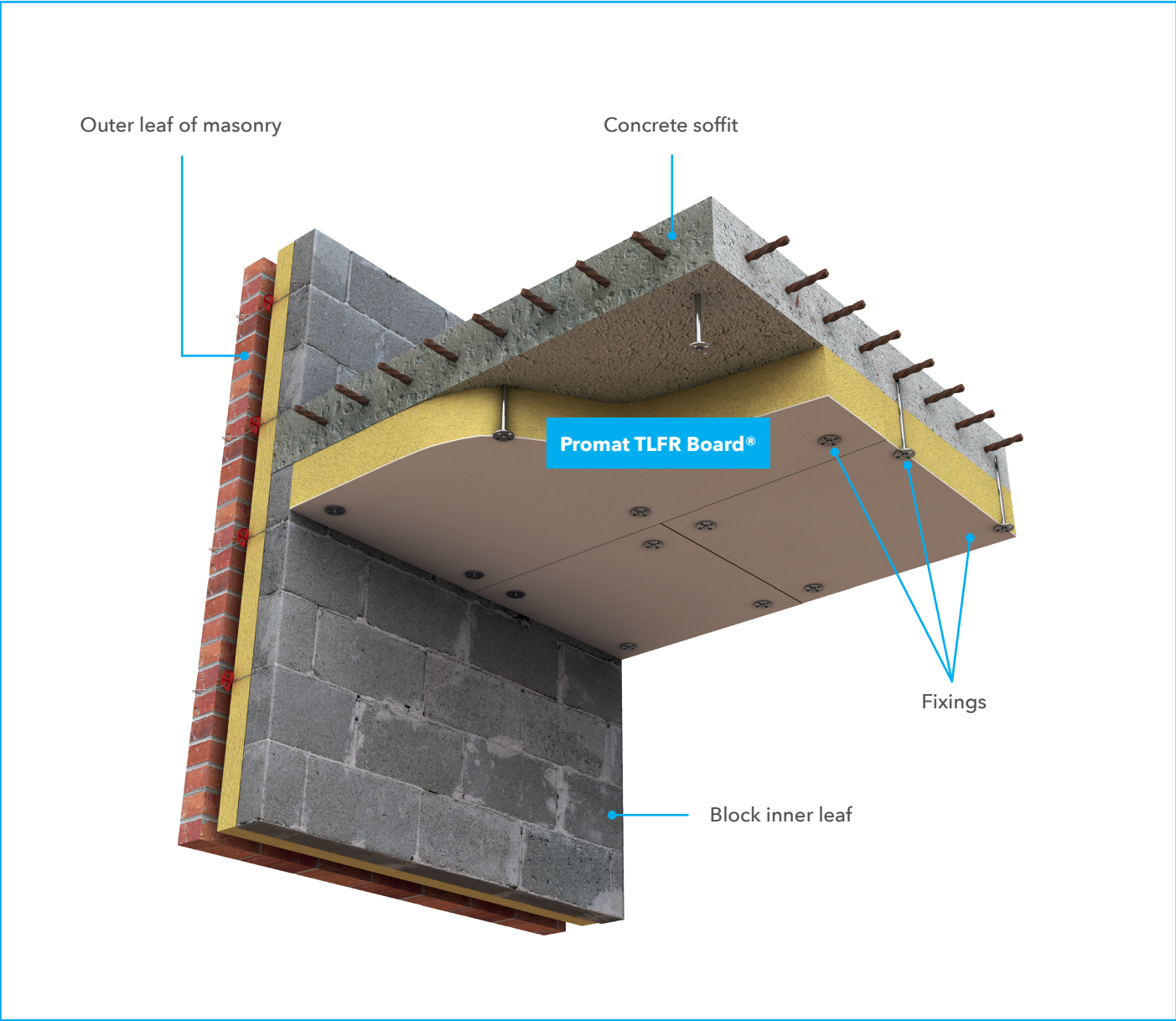
Environmental rating

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.

FEATURE AND BENEFITS

- Excellent thermal 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

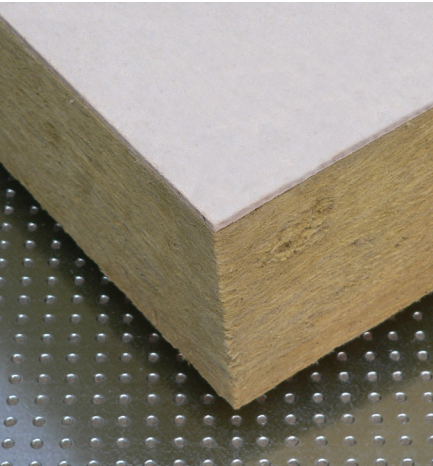
TLFR Board® Typical Design Detail & Properties



Typical properties

Panel Size (mm)		1200 x 600
Panel Thicknesses (mm)		136, 166
Density (kg/m³)	Facing board	1300 kg/m³
	Stone wool	85 kg/m³
Reaction to Fire Classification	Facing board	A1 non-combustible
	Stone wool	A1 non-combustible
Thermal Performance, (U-values W/m²K)*		136mm: 0.25
		166mm: 0.20
Finish		Natural off-white colour

* U-value calculation based on fixing to a 150mm concrete soffit result dependent on fixing type.



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

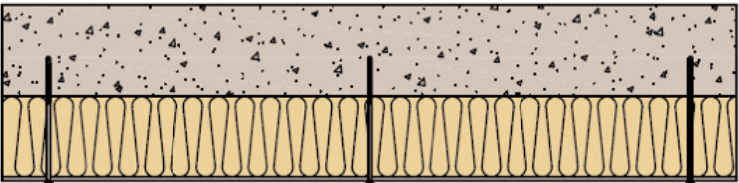
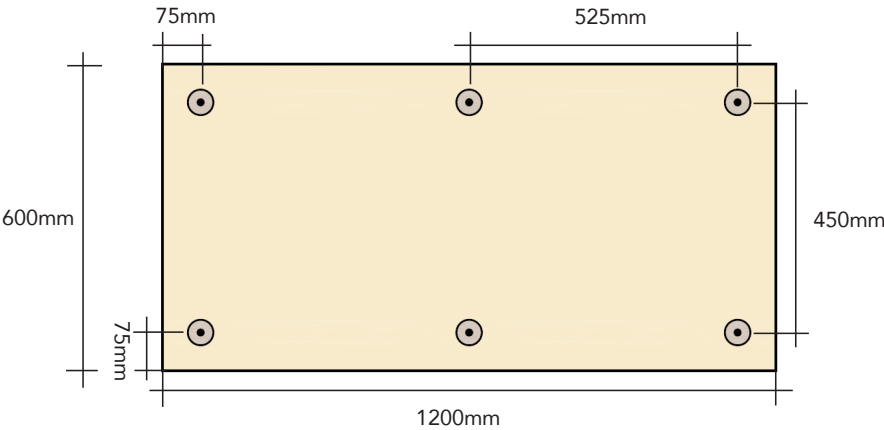


Diagram B – Plan view of fixing locations



Check fixings	<p>A number of different fixings are suitable such as the following;</p> <ul style="list-style-type: none">- EJOT DDS 7.3 mild steel self-tapping anchor- Fischer FM metal anchor screw- Insofast ISF 35 stainless steel insulation anchor- Spit ISOMET fire resistant insulation anchor- Rawlplug MBA-SS stainless steel façade fixing <p>We recommend stainless steel fixings for optimum thermal performance. Please contact a fixing specialist to confirm the suitable fixing and length. This will be based on the condition of the slab and the weight of the board.</p>
Fixing centres	See above Diagram B
Edge spacing	Minimum 75mm from edge. Minimum 75mm from corner
Fixings/m²	8.33
Fixing method	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.

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).

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 9001:2015.

Biological

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

GB ORDERLINE

For placing orders, delivery enquiries and local stockists etc.

0800 373 636 (Select option 1)
sales.construction@promat.co.uk

CUSTOMER SUPPORT

For any problems with invoices or deliveries

0800 373 636 (Select option 2)
customersupport@promat.co.uk

TECHNICAL SERVICES

For technical support and advice

0800 145 6033 (Select option 2)
technical@promat.co.uk

The board is not classified as a dangerous substance and so no special provisions are required regarding the carriage and disposal of the product to landfill.

Board off-cuts and waste can be placed in an on-site skip with other general building waste, which should be disposed of by a registered contractor.

A SAFETY INFORMATION SHEET IS AVAILABLE FROM PROMAT.COM AND, AS WITH ANY OTHER MATERIALS, SHOULD BE READ BEFORE WORKING WITH THE BOARD.



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