

THERMABOARD

 radiant
HEATING

ThermaBoard®

multi-purpose insulated tile backer panels



CODE	PRODUCT	DIMENSIONS
RTTBB-06-1200	ThermaBoard Tile Backer Board – 6mm	1200mm x 600mm
RTTBB-10-1200	ThermaBoard Tile Backer Board – 10mm	1200mm x 600mm
RTTBB-10-2400	ThermaBoard Tile Backer Board – 10mm	2400mm x 600mm
RTTBB-12-2400	ThermaBoard Tile Backer Board – 12mm	2400mm x 600mm
RTTBB-20-1200	ThermaBoard Tile Backer Board – 20mm	1200mm x 600mm
RTTBB-30-1200*	ThermaBoard Tile Backer Board – 30mm	1200mm x 600mm
RTTBB-50-1200*	ThermaBoard Tile Backer Board – 50mm	1200mm x 600mm
RTHBC-30-1250	ThermaBoard Tile Backer Board CURVED – 30mm	1250mm x 600mm
RSN-SML	ThermaBoard Shower Niche Small	350mm x 350mm
RSN-LG	ThermaBoard Shower Niche Large	350mm x 650mm
RST	ThermaBoard Shower Tray (25mm – 10mm fall)	1000mm x 1500mm

* Special Order subject to M.O.Q.

PROPERTY	ASSESSED TO	RATING
Xps Density	DIN 53420	36 ± 0.02 kg/m ³
Thermal Conductivity	EN 12167	0.033 W/m.K
Compressive Strength (10% deflection)	EN 826	300 k/Pa (30 tonnes/m ²)
Flexural Strength	ASTM C203	0.30 ± 0.02 MPa
Water Absorption (2-day immersion)	ISO 2896	0.2% by volume
Water Absorption (Capillary)	DIN 53428	Zero
Water Vapour Diffusion Resistivity (μ)	DIN 52615	110 - 225 (μ)
Water vapour Permeability	ASTM E-96	0.028 ng/Pa.m.s
Maximum Tile Loading Weight	CERAM 121107	60kg/m ²
Flammability	EN 13501	Class E
Impact Sound Reduction	BS-ISO140-	dLw=21
EU Controlled Substances Content	N/A	None

ThermaBoard has the following benefits:



ENERGY SAVING



TILE READY SURFACE



WATERPROOF



LIGHTWEIGHT



ENHANCES
UNDERFLOOR HEATING



INTERNAL +
EXTERNAL USE



RANGE OF SIZES



HIGH COMPRESSIVE
STRENGTH



CUTS EASILY



ECO FRIENDLY



RENDER + PLASTER
READY SURFACE



SOUND REDUCTION



ThermaBoard is used extensively in the **construction industry** for a wide range of applications and is manufactured from high density extruded polystyrene.



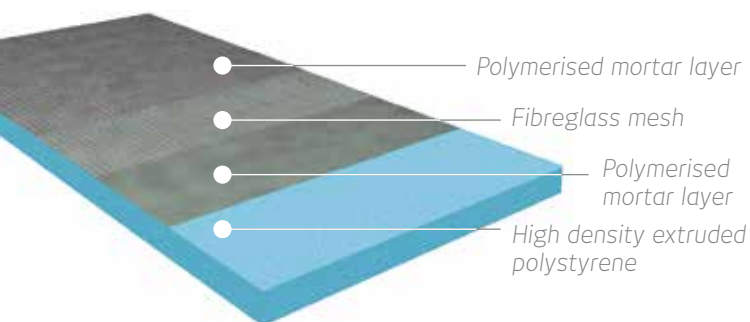
As a high performance, multi-purpose and lightweight building material, it is extremely versatile.

ThermaBoard can be used to construct simple structures such as washstands, shower enclosures, bath panels, steam rooms and spa structures, all without the need for additional supporting timber framework.

The strength of ThermaBoard is in its complex composite construction. The closed cell structure means it has excellent properties for waterproofing both walls and floors, as well as insulating beneath underfloor heating.

This rigid foam core is reinforced on both sides with a fibreglass mesh, plus a top layer of polymerised cementitious mortar. This layering system provides ThermaBoard with excellent mechanical resistance, as well as creating an ideal surface for tile adhesive and render. Ideal surface for tile adhesive, render and screed.

THERMABOARD CONSTRUCTION







WALL CLADDING AND TILE BACKING

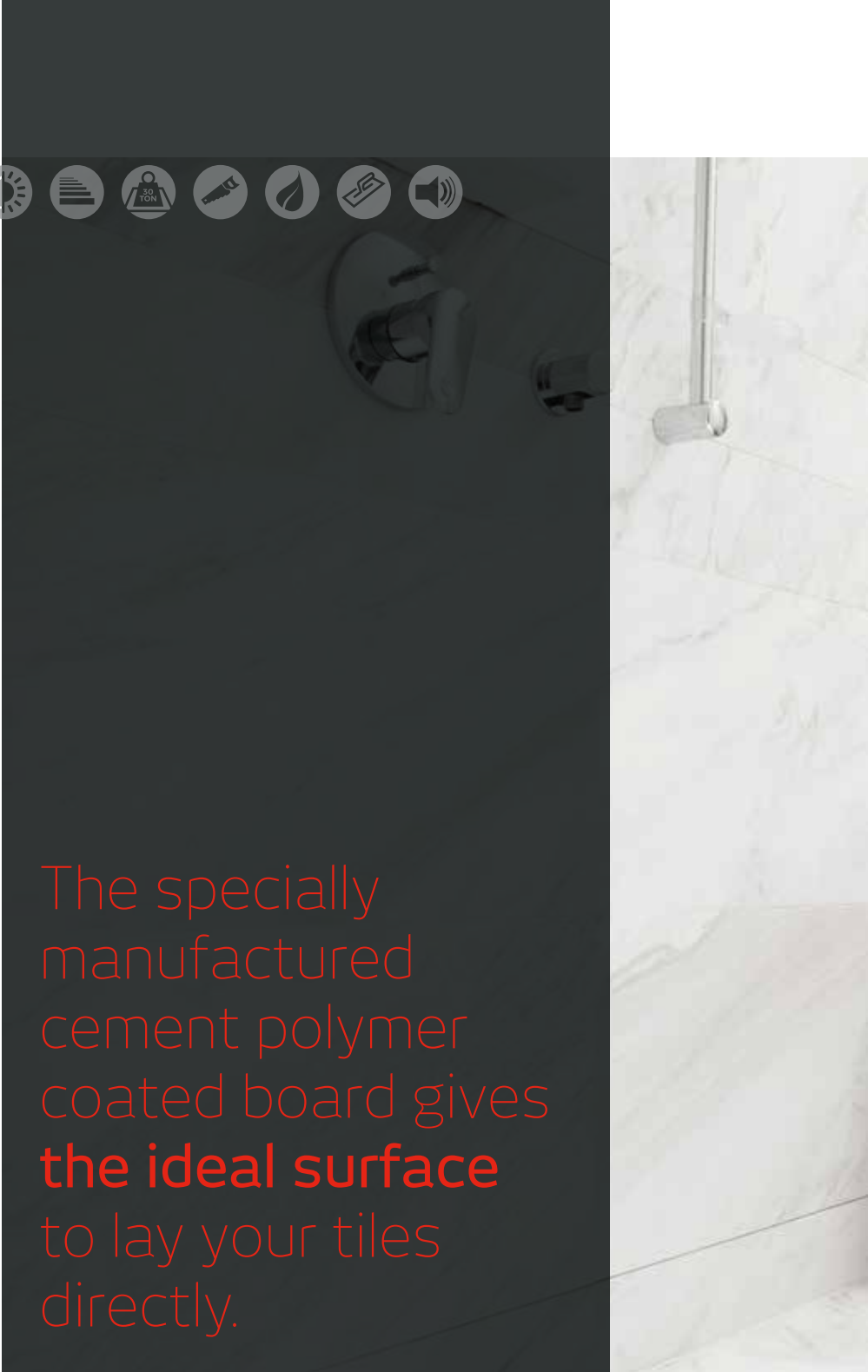
CREATING BATHROOM STRUCTURES

UNDERFLOOR HEATING UNDERLAY

FLOORING UNDERLAY BOARDS

PRE-MANUFACTURED SHOWER TRAYS

PRE-MANUFACTURED WALL NICHES



The specially
manufactured
cement polymer
coated board gives
the ideal surface
to lay your tiles
directly.

It should be used especially in wet areas such as bathrooms and kitchens where walls and floors are particularly exposed to moisture.

ThermaBoard is easy to use and can be fixed using cement based flexible tile adhesive – solvent based or ready mixed adhesives MUST NOT be used. Alternatively ThermaBoard can be fixed using screws and washers. Once fixed, ThermaBoard provides a perfect surface on which to apply decorative finishes such as tiles, synthetic renders, decorative plaster etc.





WALL CLADDING AND TILE BACKING

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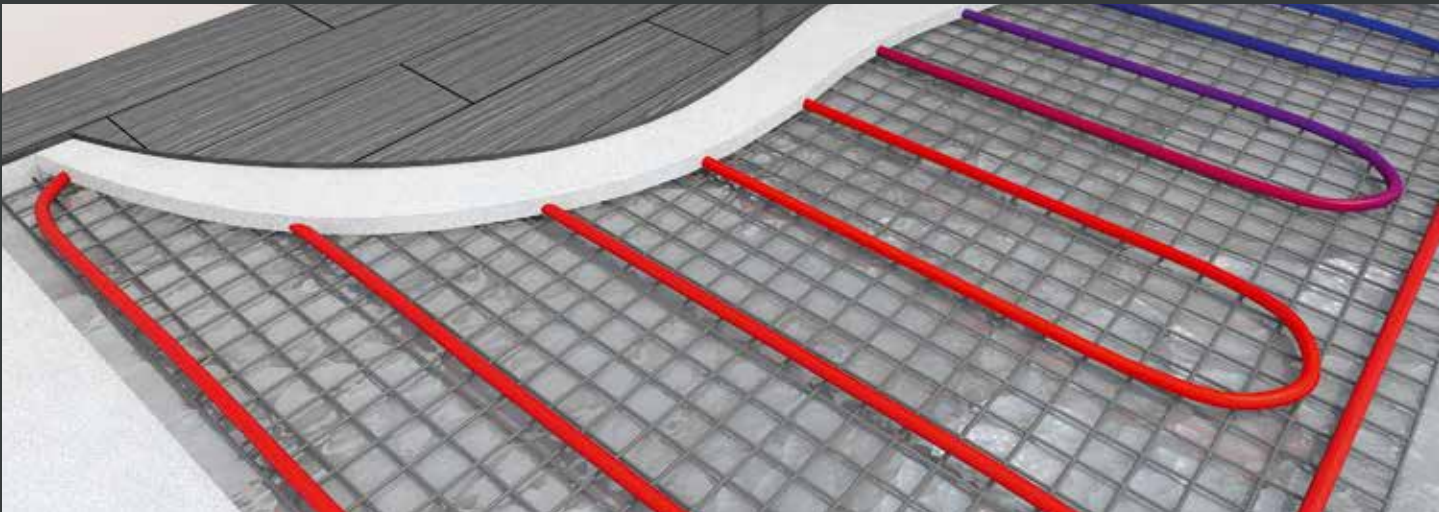
PRE-MANUFACTURED WALL NICHES

Without insulation, up to **40% of heat** generated by an underfloor heating system could be lost through the sub-floor.

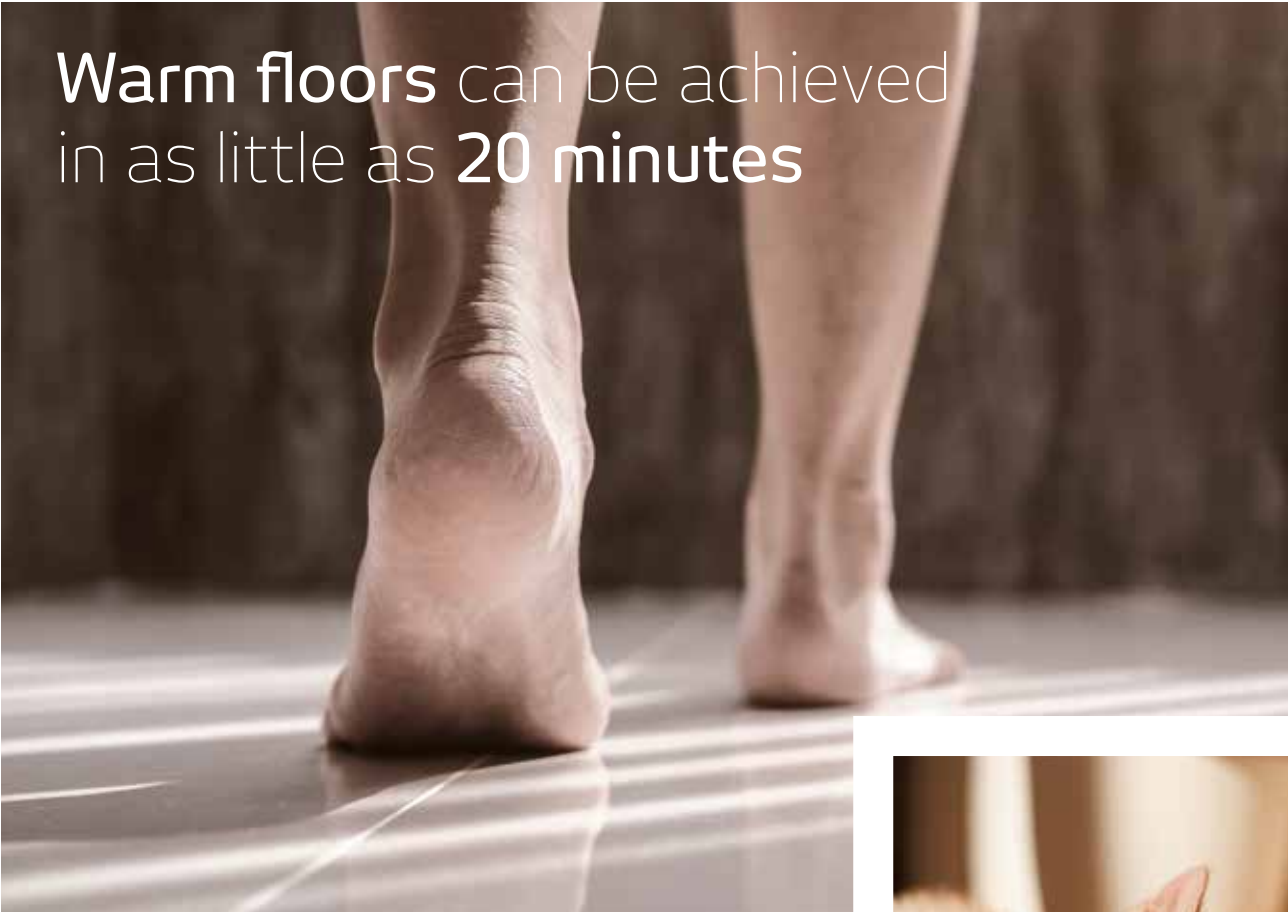
Extruded polystyrene is one of the most efficient insulation materials available, meaning minimal heat transfer to adjacent materials.

Installing ThermaBoard beneath an underfloor heating system dramatically reduces both heat loss and the cost of running domestic heating systems. Offering excellent thermal properties, using ThermaBoard in conjunction with underfloor

heating improves the efficiency of the heating system, enabling a warm floor to be achieved in as little as 20 minutes, as opposed to hours, if ThermaBoards are not used. The cost savings of using ThermaBoard can be significant.



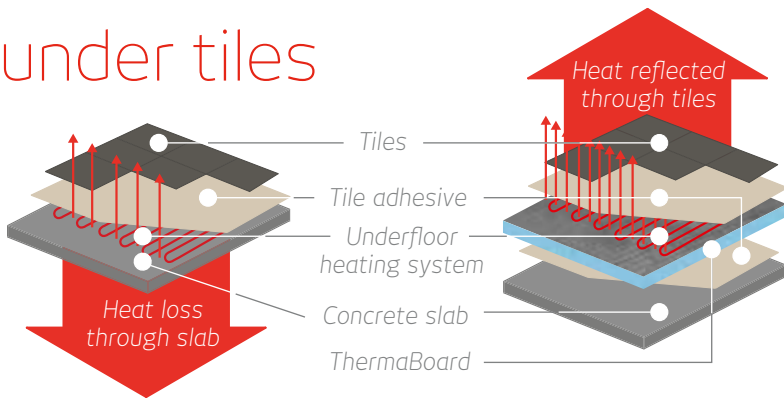
ThermaBoard also offers high thermal insulation that can benefit every room in the house by significantly reducing your heating loss – for high thermal insulation use a minimum of 20mm boards butted closely together.



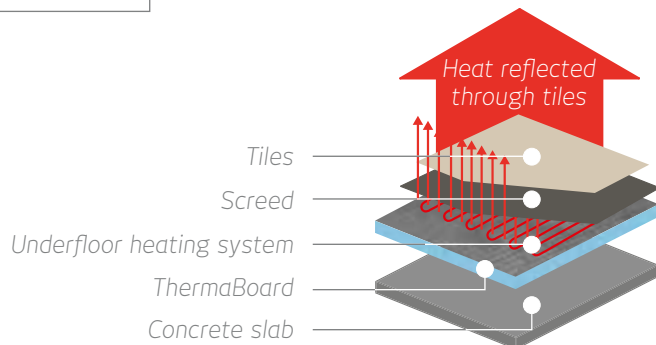
Warm floors can be achieved in as little as **20 minutes**



under tiles



under screed





WALL CLADDING AND TILE BACKING

CREATING BATHROOM STRUCTURES

UNDERFLOOR HEATING UNDERLAY

FLOORING UNDERLAY BOARDS

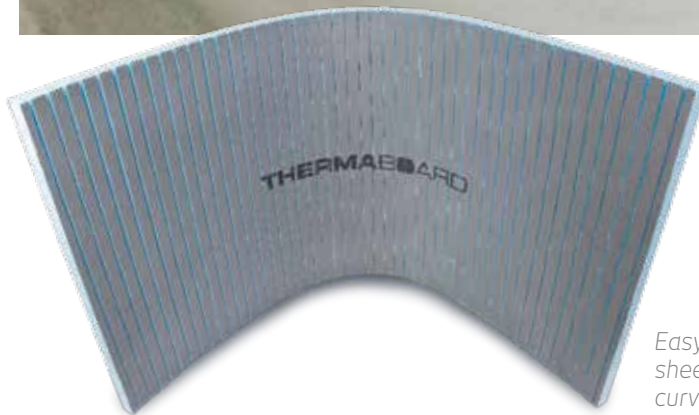
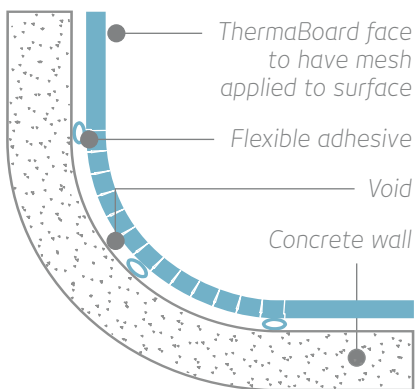
PRE-MANUFACTURED SHOWER TRAYS

PRE-MANUFACTURED WALL NICHES

ThermaBoard can be **fitted easily** to walls and floors in sheet form, as well as curved surfaces using pre-scored panels.



HOW THE CURVED PANELS ARE APPLIED



Easy to cut, pre-scored sheets makes fitting curves simple

Given its waterproofing and insulation properties, ThermaBoard is particularly useful in both internal and external wet areas exposed to moisture:

- bathrooms
- wet rooms
- kitchens
- gymnasium locker rooms
- public washrooms

It's easy to use, which makes it the obvious choice for cladding pipework or other structures that you may want to conceal, helping to create a seamless look to a room.

Our pre-scored panels are particularly useful for curved areas, and both flat and curved options can be cut easily using a utility knife or saw. The boards can then be fixed to most substrates eg timber, brick, concrete or metal frame walls. (See page 12 for application specifications.)



Gymnasium spa and shower areas

Because each construction job is different, we produce ThermaBoard in a range of thicknesses and board sizes. That way, you can choose exactly the right option to suit your needs, without having to compromise.

6 / 10 / 12 / 20 / 30MM THICKNESS

1200 X 600MM / 2400 X 600MM SHEET SIZES

1250MM X 600MM CURVED PANELS



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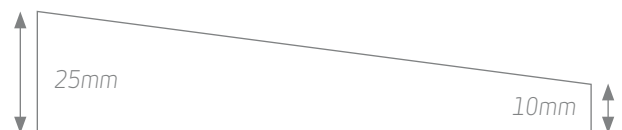


Our **shower trays** are designed to make the tiling of walk-in showers simple.



They are ideally suited for projects where falls to floor need to be created over existing level floors in environments such as wet rooms, balconies, roof terraces etc.

A tough surface coating provides the perfect surface for the application of tiles. Creating accurate falls over long distances is easily achieved by using ThermaBoard as a raising course. Our predetermined boards have a fall of 25 – 10 mm.





Our **prefabricated niches** are perfect for storing and displaying items, and are especially useful in showers, bathrooms and wet rooms.



350 X 350MM / 350 X 650 MM

Manufactured from a one-piece construction high-density polystyrene core, with a liquid applied waterproof sealant that provides a ready-made waterproof substrate, our niches are versatile, easy to install and ready to tile in minutes. Guaranteed never to rot, degrade or leak, the ThermaBoard niche is perfect for those bath and shower necessities to be in exactly the position you choose.

Fixing ThermaBoard to timber floors

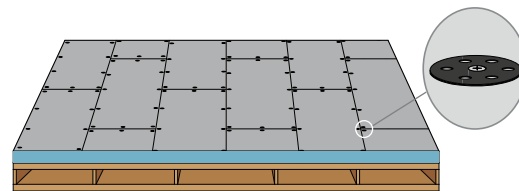
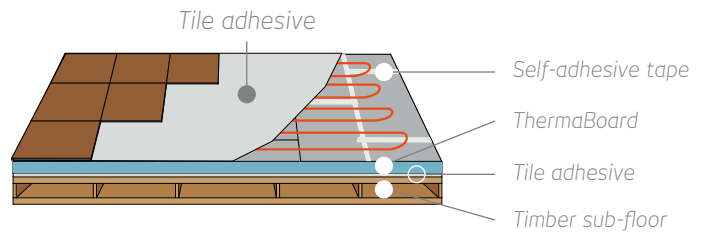
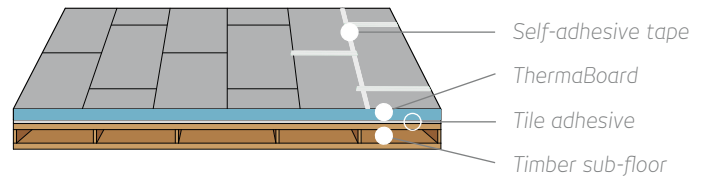
Adhesive

ThermaBoard can be laid directly on to a level floor using a suitable rapid set tile adhesive. Solvent based or ready mixed adhesives **MUST NOT** be used. Apply adhesive bed to the floor using an 8mm square notched trowel. Bed the boards firmly into the tile adhesive in a staggered joint pattern, ensuring that there are no gaps between the boards. Use a straight edge and level to ensure a good alignment. Do not allow the adhesive to form a dry skin. Tape all joints between the boards using a self-adhesive reinforcing tape. For water proof construction, all joints must be covered with waterproof tape and treated with approved polyurethane water proofing agents as per manufacturer's recommendation.

Mechanical fixing

ThermaBoard should be fixed to a secured wooden base using approximately 12 screws per 1250mm x 600mm board, at 300mm centres. Use a 35mm washer under each screw head and tighten the screw until the washer bites into the board to give a firm hold. Use a straight edge and level to ensure a good alignment. The screw should be long enough to pass through the board and into the wooden base beneath. Ensure that there are no electrical cables or pipework beneath the floor that may be damaged when fixing the boards. Boards should be laid in a staggered joint pattern. For water proof construction, all joints, penetrations and fastener locations must be covered with waterproof tape and treated with approved polyurethane water proofing agents as per manufacturer's recommendation.

ThERMABOARD ON TIMBER FLOOR (TOP), WITH UNDERFLOOR HEATING (MIDDLE) AND WITH MECHANICAL FIXINGS (BOTTOM)



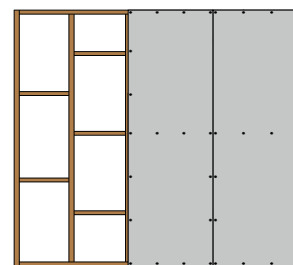
Fix ThermaBoard to timber base using screws at approx 300mm centres. Use 35mm washers and ensure screws are long enough to pass through board and into timber.

Fixing ThermaBoard to timber and metal frames

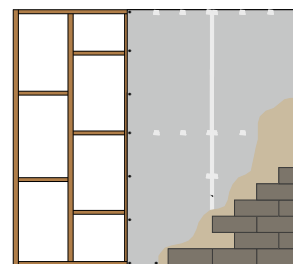
This system uses timber or metal studwork designed to provide rigid support for ThermaBoard. The unsupported span of the framework depends on the thickness of the board. It is not recommended to use boards less than 10mm thick to line walls. All board edges must be supported. Please note the following guide for stud work related to thicknesses of the board:

- 20mm board (or thicker) use 600mm centres
- 12mm board use 400mm centres
- 10mm board use 300mm centres

Use 8 galvanised screws and washers per m², set at a minimum of 30mm from the edge of the board. Tighten the screw until the washers bite the board surface. Ensure boards are well butted together. Use a straight edge and level to ensure that boards are aligned. Tape all joints with self-adhesive mesh, and then apply a thin layer of tile adhesive on the mesh surface. For water proof construction, all joints, penetrations and fastener locations must be covered with waterproof tape and treated with approved polyurethane water proofing agents as per manufacturer's recommendation.



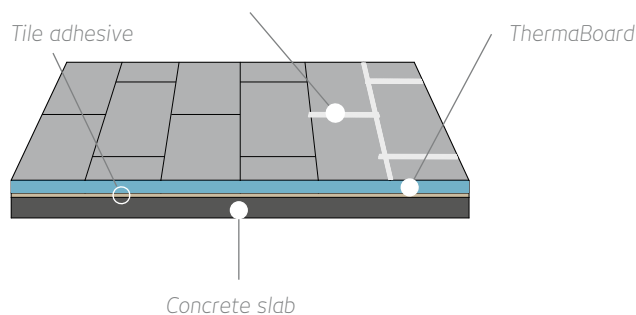
All board edges must be supported. Use 8 galvanised screws and washers per m², set a minimum 30mm from edge of board.



Tape all joints and fixings with self-adhesive mesh. Apply a thin layer of tile adhesive to the mesh surface and allow to dry before tiling.

Fixing ThermaBoard to concrete floors

Ensure that the floor is level and free from dust and any loose debris. New concrete floors should be left to cure prior to fixing ThermaBoard and then the concrete floor should be sealed with a primer. A suitable rapid set tile adhesive should be used - solvent based or ready mixed adhesives **MUST NOT** be used. Apply the adhesive bed to the floor using an 8mm square notched trowel. Bed the boards firmly into the tile adhesive in a staggered joint pattern, ensuring that there are no gaps between the boards. Any slight depressions in the concrete floor are usually taken up with the thickness of the adhesive. Use a straight edge and level to ensure a good alignment.



Apply self-adhesive reinforcing tape to all joints if installing underfloor heating.

Fixing ThermaBoard to brick or concrete walls

Dot and dab method for boards of 12mm or greater thickness:

Ensure that the existing wall surface is sound and free from dust and grease.

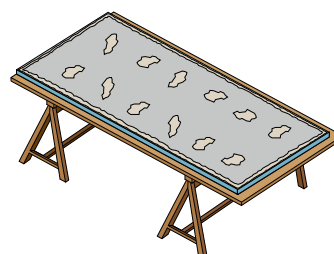
Apply a cement based flexible tile adhesive directly to the board. A solid bed of adhesive should be applied to the edges of the board and dots in the centre (maximum 300mm apart). Adhesive should not exceed 30mm thickness.

Offer up the board vertically to the wall surface and bed firmly into place. Always use a straight edge and level to ensure that the boards are well aligned. Ensure boards are well butted together.

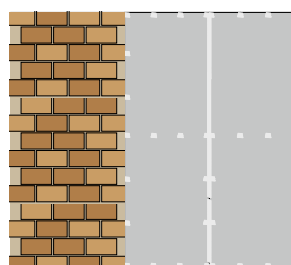
Once the adhesive has completely set mechanical fasteners should also be used. Position the screws and washers approx. 600mm apart, fixing through the hardened adhesive approx. 30mm from the edge of the boards.

When all the boards have been firmly placed and fixed the joints can be taped. For water proof construction, all joints, penetrations and fastener locations must be covered with waterproof tape and treated with approved polyurethane water proofing agents as per manufacturer's recommendation.

Fixing boards less than 12mm thick to brick or concrete walls: The dot and dab method is not recommended for fixing boards that are less than 12mm in thickness to brick or concrete walls. For boards less than 12mm thick it is recommended that a solid bed of adhesive is applied to the surface of the board using a notched trowel and then boards are applied to the wall. All other stages in the application process should be followed.



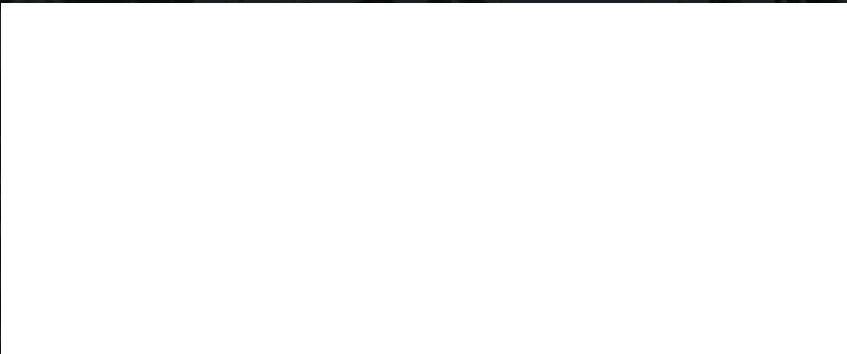
Apply a solid bed of adhesive to the edge of the board and dots of adhesive to the centre.



Bed the boards firmly to the wall surface. Once the adhesive is dry use mechanical fixings, fixing through the dry adhesive at the edge of the board. Tape joints and fastenings with waterproof tape.



VERSION 1



radiant
HEATING

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