

Xtratherm® Flat Roof Solutions

Xtratherm FR/BGM Sheet Size (mm)

Length (IRL sizes)	Length (UK sizes)
1200	1200

Width (IRL sizes)	Width (UK sizes)
1200	600

Thickness

25, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140

Other sizes are available subject to quantity and lead time.

Note: Xtratherm Ltd. reserves the right to amend product specifications without prior notice

Roof Loading

Xtratherm FR/BGM is suitable for use on roof decks that are subject to limited maintenance foot traffic. Walkways should be provided on roofs requiring regular pedestrian access. When the roof is complete, protective boarding should be laid if additional site work is to be carried out.

Roof Finish

Built up roofing systems should be finished with a suitable reflective layer such as chippings. Advice should be sought from system manufacturer.

Fire Performance

The fire rating when tested to EN 13501-5 and BS 476 Part 3 'External Fire Exposure Roof Test' will be dependent upon waterproofing system specified.

Xtratherm's comprehensive range of Agrément certified high performance flat and tapered roof insulation boards provides a guaranteed quality solution to flat roof specification.

Note: FR/BGM can also be used in mechanically fastened or loose laid ballasted bituminous roofing systems.

Flat Roof Board FR/BGM

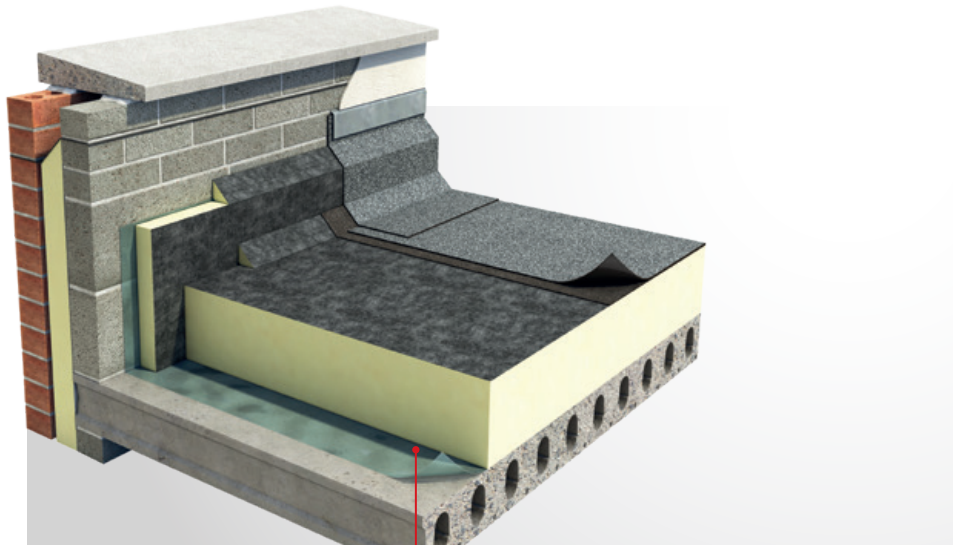
Insulation for Partially Bonded, Torched-on, Built-up Bituminous Felt Systems

FR/BGM is faced with a polypropylene fleece finished bitumen/glass fibre working surface and a mineral glass facing to the under side. FR/BGM is part of Xtratherm's comprehensive range of high performance flat roof boards providing total solutions for flat roof projects.

High Thermal Performance

Compatible with most bituminous based roofing systems

Fleece finished bitumen/glass fibre facings



Mineral glass facing to the under side of BGM board.

Roof Design

Xtratherm FR/BGM is suitable for use with most bitumen based, partially bonded water proofing systems typically including a BS 747 type 3G perforated base layer or proprietary system.

Xtratherm FR/BGM, (Fleece side upper most) may also be fully bonded. Guidance in regard to moisture and condensation should be in accordance with BS 8217 (Reinforced bitumen membranes for roofing).

* During the construction process, the construction should be protected from rain penetration during breaks in the process.

* With fully bonded applications additional care is required to ensure that the construction remains free from moisture. Failure to protect will result in blistering of the waterproof layer.

Falls

The fall on a flat roof should be designed to ensure that rainfall does not pond.

Flat Roof Insulation

Vapour Control Layer

Decks should be primed before the application of the hot bitumen used to bond the vapour control layer. Reference should be made to BS 8217:1994 when applying the vapour control layer. Carry the VCL past the insulation and seal with the parapet wall.

Laying (Metal Deck)

On metal decks, Xtratherm FR/BGM should be laid break bonded into hot bitumen (max temperature 240°C) mopped or poured over the vapour control layer. The boards can also be mechanically fixed or the mineral coated glassfibre facer (MG) can be adhered with other suitable adhesive. Fixing heads should be sealed with bitumen.

Laying (Concrete Deck)

Ensure concrete decks are laid to provide correct falls to outlets and are clean, dry, without projections. Primer should be laid in accordance with the manufacturer's instructions. The vapour control layer should be fully bonded to the deck and the Xtratherm FR/BGM should be laid into hot bitumen on the vapour control layer in a break bonded pattern. The boards can also be mechanically fixed or the mineral coated glassfibre facer (MG) can be adhered with other suitable adhesive. Fixing heads should be sealed with bitumen.

Laying (Timber Deck)

On plywood decks, Xtratherm FR/BGM should be fully bedded in hot bitumen over a continuous vapour control layer which has been nailed or bonded to the deck. The boards can also be mechanically fixed or the mineral coated glassfibre facer (MG) can be adhered with other suitable adhesive. Fixing heads should be sealed with bitumen.

Fixing

The specification for fixing Xtratherm roof boards will vary with the location, roof height/width and topographical data. Architectural specification should be consulted. Generally with 1200mm x 600mm boards, a minimum of 4 fixings per board are adequate, located between 50mm and 150mm from all edges, additional fixings may be placed along the centre line. Counter sunk washers, 50mm in diameter should be used with each fixing. However, BS 6399: Part 2 should always be consulted. In two layer systems, all layers should be fixed in accordance with fixing manufacturers instructions.

Bitumen Based Built Up Roofing Systems

Technical guidance from the appropriate bitumen waterproofing manufacturer should be sought as to assure proper installation of the bonded built up roofing system.

Fire

Each contract should be assessed for suitability of torch on applications. The suitability of materials, substrates and specifications should be assessed before commencement. Application of the torch on system should be undertaken only by fully trained personnel with appropriate fire precautions and fire extinguishing equipment available at hand. All timber roof components, and most insulation materials are combustible, and will be vulnerable to a naked flame. These materials may be hidden from view. Due attention should be given and all precautions taken. This is the responsibility of the operatives.

Typical Physical Characteristics

Property	Units
Density (Foam Core)	32kg/m ³
Compressive Strength	>150kPa @ 10% Compression
Thermal Conductivity*	0.024 - 0.027 W/mK

Typical U-values

FR/BGM Over Concrete Deck

FR/BGM (mm)	U-value (W/m ² K)
80	0.29
90	0.26
100	0.24
120	0.20

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ISO 9001 | Quality Management Systems
ISO 14001 | Environmental Management

The given U-values are indicative only. The effect of fixings has been assumed to have had no effect on the U-value. For comprehensive calculations on all deck types, please contact Xtratherm Technical Support. *Thermal conductivity is dependent on facings and product thickness.