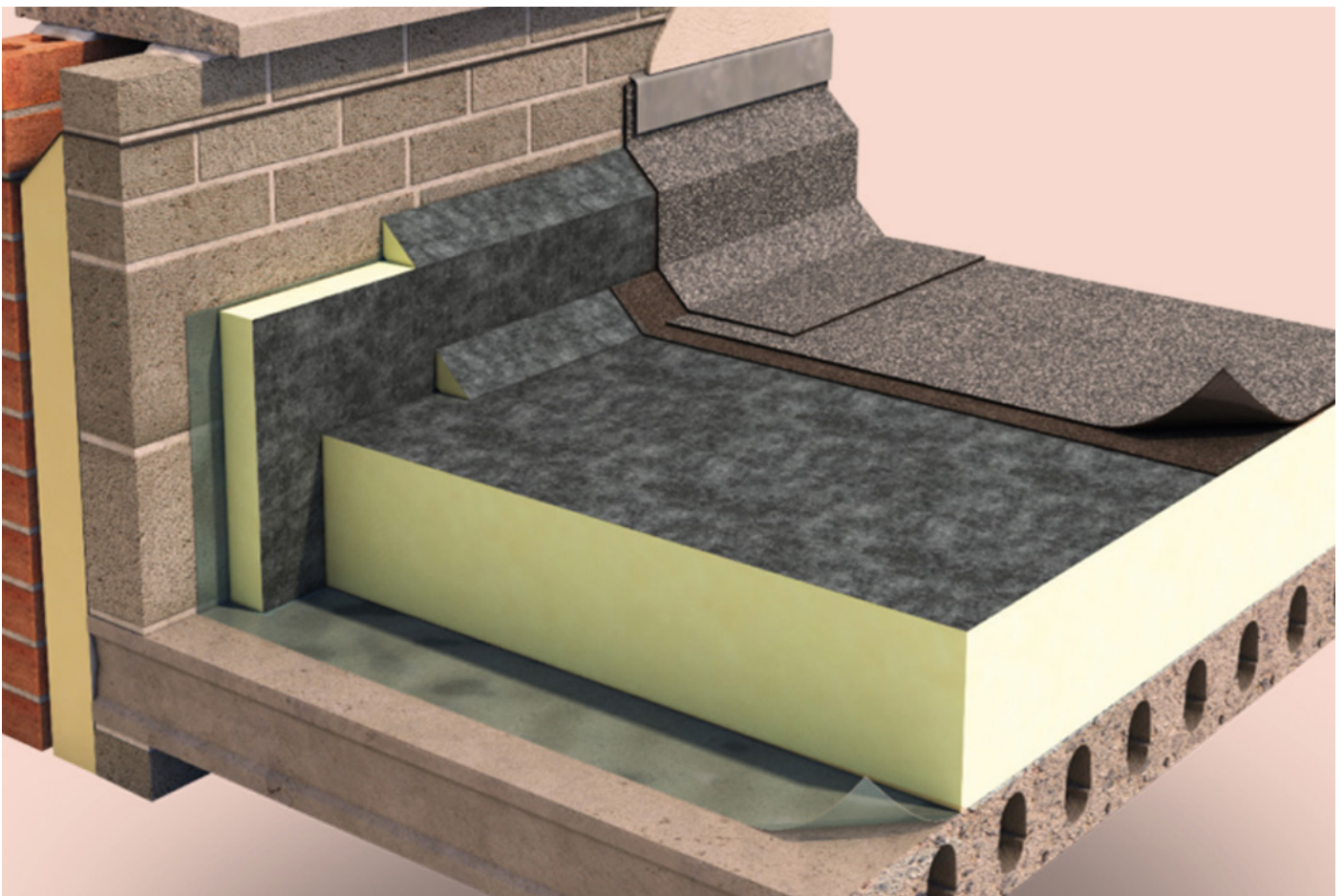


UNILIN FR/BGM



Insulation for Single Ply Fully
Adhered / Partially Bonded
Built-Up Felt Systems

Faced with a polypropylene fleece finished bitumen/glass fibre working surface and a mineral glassfacing to the under side.

Manufactured by

 **UNILIN** INSULATION

UNILIN FR/BGM

General Information

UNILIN 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 UNILIN's comprehensive range of high performance flat roof boards providing total solutions for flat roof projects.

FR/BGM has a high thermal performance, compatible with most bituminous based roofing systems.

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

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.

Certificates

BBA Certified 11/4878.

Roof loading

UNILIN 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 system

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

Roof Design

UNILIN 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. UNILIN 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 constant and steep enough to ensure that rainfall does not pond.

Delivery conditions

Delivery form

Shrunk wrapped on a pallet, quantity depending on board thickness.

Product identification

Information on the pack; Product name. Dimensions. Approvals. Production date.

UNILIN FR/BGM

Installation

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, UNILIN 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 UNILIN 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 (Concrete Deck)

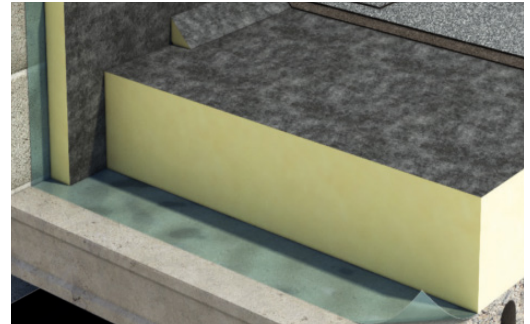
On plywood decks, UNILIN FR/BGM should be fully bedded in hot bitumen over a continuous vapour control layer which has been nailed or bonded to the deck. The boards can also be mechanically fixed or the mineral coated glassfibre facer (MG) can be adhered with other suitable adhesive. Fixing heads should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

Fixing

The specification for fixing UNILIN 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.



Laying Concrete Deck

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.

UNILIN FR/BGM

PRODUCT DESCRIPTION

Appearance top side	Fleece finished bitumen/glass fibre facings
Core	PIR Insulation
Appearance bottom side	Mineral coated glass facers

DECLARED PERFORMANCE

Essential characteristics	Performance	Unit	EN Code	Standard
Fire Performance	See note*	-	-	BS EN 13501-1
Width	600	mm	-	-
Length	1200	mm	-	-
Thickness**	25, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140	mm	-	-
Density (Foam Core)	32	kg/m ³	-	-
Compressive Strength	>150kPa@10% Compression	kPa	-	-
Thermal Conductivity	0.024 - 0.027	W/mK	-	-

TYPICAL U-VALUES

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

*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

* Other sizes are available subject to quantity and lead time.

This information given in good faith and is based on the latest knowledge available to Quantum Insulation Ltd. Whilst every effort has been made to ensure that the contents of the publication are current while going to press, customers are advised that products, techniques and codes of practice are under constant review and liable to change without notice.

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