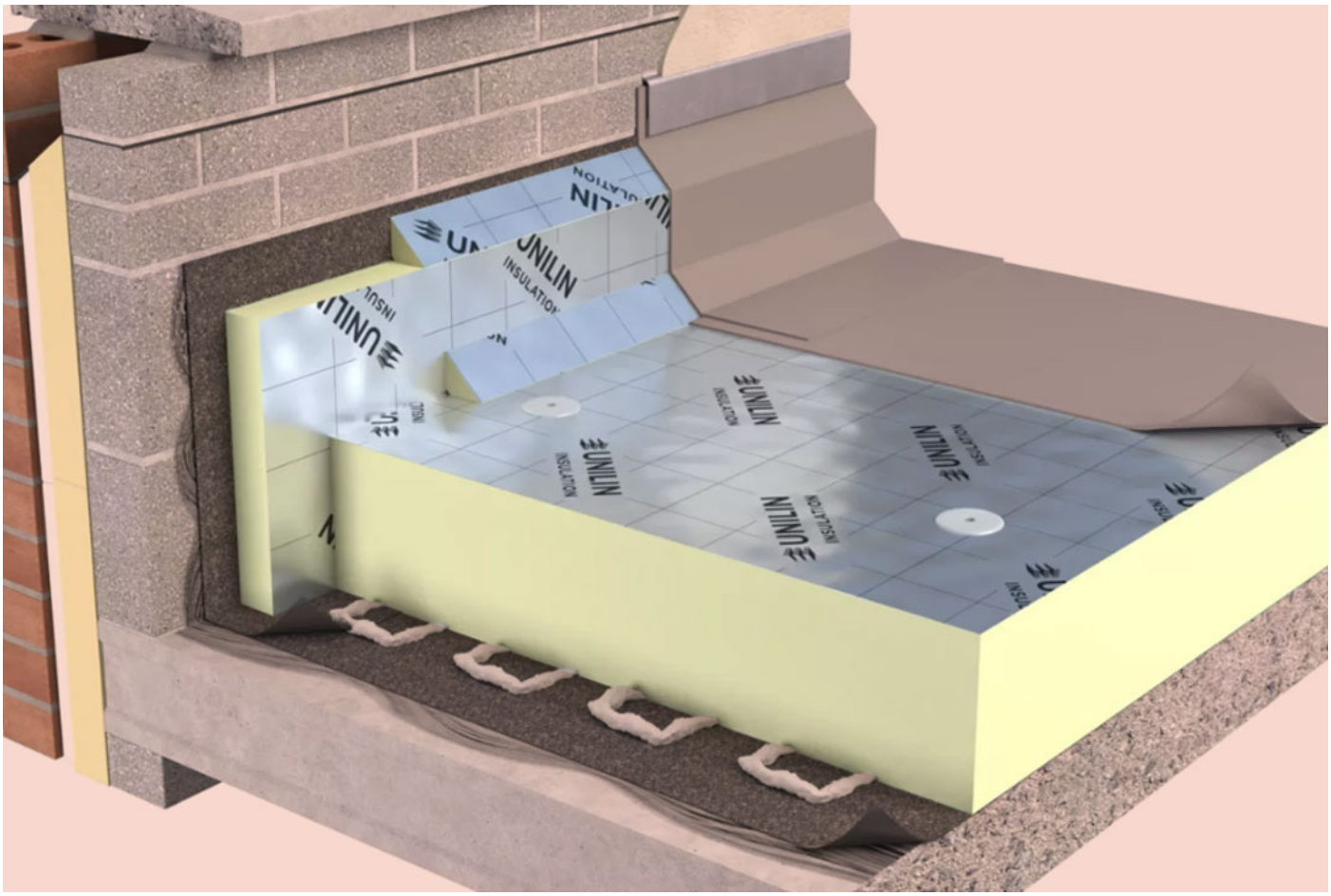
QUANTUM INSULATION

Product Data Sheet

UNILIN FR/ALU



BBA APPROVAL INSPECTION TESTING CERTIFICATION
11/4817

Insulation for Mechanically Fixed Single Ply Waterproofing Systems

A high performance Polyisocyanurate flat roof insulation with vapour-tight aluminium foil facings suitable for use with single ply membranes.

Manufactured by
UNILIN INSULATION

UNILIN FR/ALU

General Information

UNILIN FR/ALU is a high performance Polyisocyanurateflat roof insulation with vapour-tight aluminium foil facings suitable for use with single ply membranes. FR/ALU is part of the comprehensive range of UNILIN's high performance flat roof boards providing total solutions for flat roof projects.

UNILIN FR/ALU is faced with gas-tight foil. UNILIN FR/ALU foil faced roof boards are suitable for use below single ply mechanically fixed roof membranes.

Note: FR/ALU is not suitable for applications with built-up bitumen based roofing or mastic asphalt systems.

UNILIN FR/ALU insulation boards should be laid over the vapour control layer in a break bonded pattern. The long edges of the boards should be laid at right angles to the corrugations and all board joints must be fully supported by the deck. The FR/ALU insulation boards are secured by approved mechanical fixings.

The requirement for a separate water vapour control layer should be assessed in accordance with BS 6229. Typically a 1000 gauge polythene should be used with all joints lapped and sealed. Any fixings that penetrate it must be of the self sealing type that fuses to the vapour control layer during application.

UNILIN FR/ALU foil faced insulation boards are suitable for use on roof decks that are subject to maintenance traffic. Walk ways 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. The completed roof should not be used for storage of heavy materials or air conditioning plant.

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 11/4817.

Roof Design

Consideration should be given to the recommendations of BS 4841: Part 3 and those of the Single Ply Roofing Association.

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.

QUANTUM INSULATION

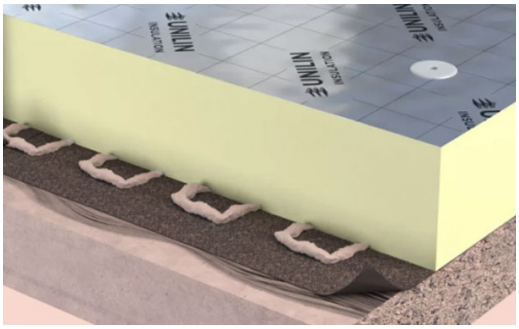
Quantum Insulation, Holland House, Valley Way, Rockingham Road, Market Harborough, Leicestershire LE16 7PS. T: 01858 456018 E: sales@quantuminsulation.com
www.quantuminsulation.com

UNILIN FR/ALU

Installation

Vapour Control Layer

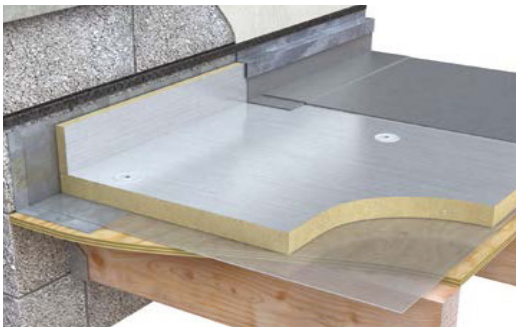
The water vapour control layer should be laid with 150mm laps, which are turned up at any vertical upstand. When the insulation boards have been positioned the laps are turned over and sealed, prior to the roof finish being completed.



Vapour Control Layer

Laying (Metal/Timber Deck)

UNILIN FR /ALU foil faced boards should be laid over the vapour control layer in a break bonded pattern. The long edges of the boards should be laid at right angles to the corrugations and all board joints must be fully supported by the deck. The FR /ALU insulation boards are generally secured by approved mechanical fixings.



Metal/Timber Deck

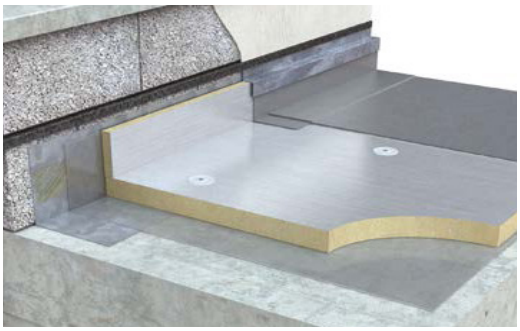
Laying (Concrete Deck)

UNILIN FR /ALU boards are laid over the vapour control layer in a break bonded pattern and secured with approved mechanical fixings, or secured under a ballasted system. Care should be taken to ensure that the concrete deck is graded to the correct falls, dry, clean and free from any projections or gaps.

Fixing

The specification for fixing UNILIN roof boards will vary with the location, roof height/area and topographical data. Architectural specification should be consulted.

Generally with 2400mm x 1200mm boards, a minimumof 6 fixings are adequate, located between 50mm and 150mm from all edges, additional fixings may be placed along the centre line. Additional fixings around roof perimeter may be required. 11 fixings per 2400mm x 1200mm sheet is recommended. Counter sunk washers, 50mm in diameter should be used with each fixing. However, BS 6399: Part 2 should always be consulted. During the construction process,the construction should be protected from rain penetration during breaks in the process.



Concrete Deck

QUANTUM INSULATION

Quantum Insulation, Holland House, Valley Way, Rockingham Road, Market Harborough, Leicestershire LE16 7PS. T: 01858 456018 E: sales@quantuminsulation.com
www.quantuminsulation.com

UNILIN FR/ALU

PRODUCT DESCRIPTION	
Appearance top side	Aluminium Foil
Core	PIR Insulation

DECLARED PERFORMANCE

Essential characteristics	Performance	Unit	EN Code	Standard
Fire Performance	See note*	-	-	BS EN 13501-1
Width	1200	mm	-	-
Length	2400	mm		
Thickness**	25, 30, 40, 50, 60, 70, 75, 80, 90, 100, 110, 120, 125, 130, 140, 150	mm	- -	
Density (Foam Core)	32	kg/m^3	-	-
Compressive Strength	>150kPa@10% Compression	kPa	-	-
Thermal Conductivity	0.022	W/mK	-	-

TYPICAL U-VALUES

FR/ALU Over Concrete Deck	
FR/ALU (mm)	U-value (W/m^{2}K)
80	0.26
90	0.23
100	0.21
120	0.18
140	0.16

***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.

For further information on Quantum Insulation products and services please call **01858 456018** or email **sales@quantuminsulation.com** **19/06/26**

QUANTUM INSULATION

Quantum Insulation, Holland House, Valley Way, Rockingham Road, Market Harborough, Leicestershire LE16 7PS. T: 01858 456018 E: sales@quantuminsulation.com
www.quantuminsulation.com