



# Mannok Therm Roof / MFR-GFR

Mannok Therm Roof / MFR-GFR roof board is one of the range of PIR (polyisocyanurate) foam boards we manufacture for the insulation of floors, walls and roofs.

## Benefits of Mannok Therm Roof / MFR-GFR (MFR-GFR)

- MFR-GFR glass fibre faced rigid insulation is well suited to use in new build and refurbishment projects where the warm flat roof is covered with a mechanically fixed or adhered single ply membranes. Partially bonded built-up felt and Mastic Asphalt, Cold/Hot liquid waterproofings.
- MFR-GFR has a low thermal conductivity, minimising the thickness required to achieve the design U-value.
- MFR-GFR boards are LPCB approved to LPS 1181:Part 1 for built up cladding systems for use as the external envelope of the building. Contact the Mannok technical department for further details.

### Composition

Mannok Therm Roof / MFR-GFR consists of a core of PIR (polyisocyanurate) foam with mineral coated perforated glass tissue facings. The gas filled cells give MFR-GFR its high thermal performance and strength while the facing maximises performance.

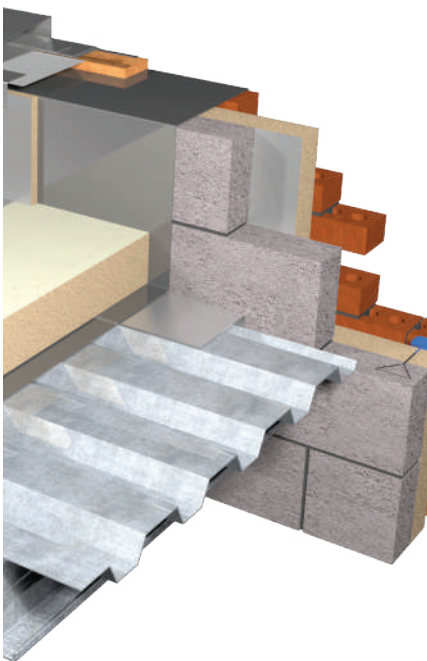
### Thermal Performance

MFR-GFR has a thermal conductivity of 0.024-0.026W/mK, making it one of the most effective rigid board insulations available.

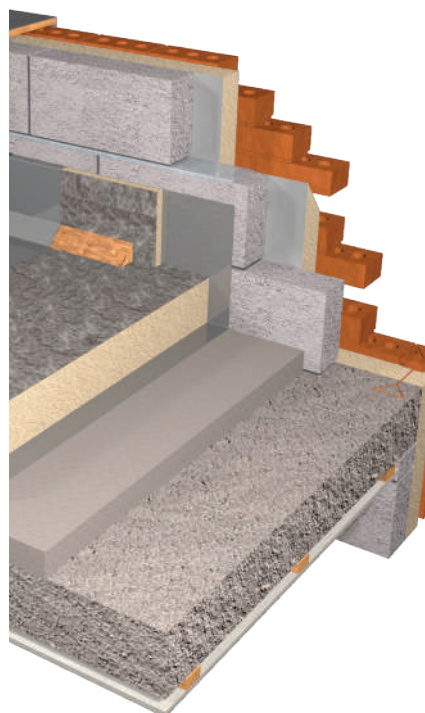
### Environmental

Mannok Therm has an ozone depletion potential (ODP) of zero and a Global Warming Potential (GWP) of less than 5, certified to ISO 14001 - Environmental Management Systems.

## Applications



Flat roofs:  
MFR-GFR on metal deck



Flat roofs:  
MFR-GFR on concrete deck



Flat roofs:  
MFR-GFR on timber deck

## CE Marking



Construction Products Regulation (CPR) requires mandatory CE marking for all thermal insulation products. The boards are CE marked to harmonised standard EN 13165. The Declaration of Performance, 008/20†, is available on our website. (see bottom of page for link)

## Delivery & Storage

Mannok PIR Insulation boards are shrinkwrapped in clear polyethylene for delivery to site. Each pack is labelled with the product description, product characteristics, manufacturer's name and brand name, quantity per pack, and any identification marks.

## Biological / Chemical

Mannok PIR Insulation does not rot and does not support mould or fungus. Mannok PIR Insulation is chemically inert, and poses no threat to anyone using it.

## Technical Support

Mannok provides a comprehensive technical support service for designers and contractors.

### Mannok can provide:

- copies of Agrément and test certificates
- U-value calculations
- interstitial risk calculations
- design advice
- guidance on the most effective ways to meet current Building Regulations and Building Standards.

### Contact Technical Support:

- Call: +44 (0) 28 6774 8866
- Email: [technical@mannokbuild.com](mailto:technical@mannokbuild.com)

## Physical & Performance Characteristics

Surface	Mineral coated, perforated, glass tissue facing
Edge:	Butt, Rebate
Thicknesses:	25mm - 150mm
Length x width:	1200mm x 2400mm 1200mm x 600mm
Thermal conductivity	<80mm: 0.026W/mK 80 - 119mm: 0.025W/mK 120 - 150mm: 0.024W/mK
Core water vapour resistivity	≈300MNs/gm
Compressive strength:	>150kPa

## Fire Performance

Thickness	BS 476-7	BS EN 13501-1
25-150mm	Class 1	Euroclass E

## Dimensional stability / Durability

When tested to EN 1604 Mannok PIR Insulation achieves level DS(TH)4 to EN 13165. Mannok Therm Roof / MFR-GFR tested to BS EN 1606-1 Compressive Creep. (extrapolated to 25years) Mannok PIR Insulation will perform for the service life of the building.

## Design and Installation

For design and installation information plus thicknesses of Mannok Therm Roof / MFR-GFR to achieve specific U-values in all roof applications, consult our Product & Installation Guide, available via our website.

### For further information:

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Every effort has been taken in the preparation of this data sheet to ensure the accuracy of representations contained herein. Recommendations as to the use of materials, construction details and methods of installation are given in good faith and relate to typical situations. However, every site has different characteristics and reliance should not be placed upon the foregoing recommendations. Advice can be given as to specific applications of the products, upon request to Mannok.