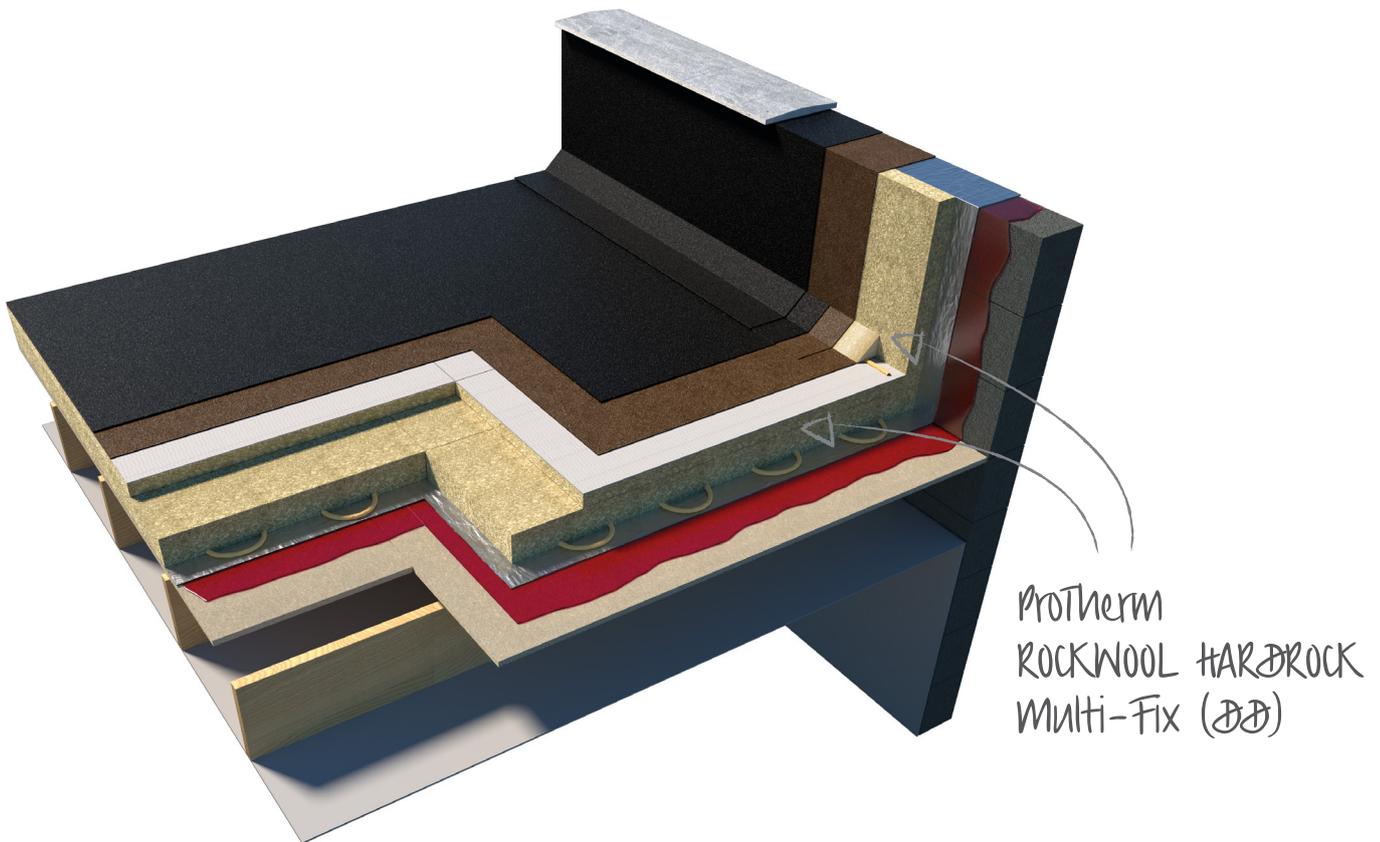


# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

### Product Data Sheet



# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

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### General Information

**ProTherm ROCKWOOL HARDROCK Multi-Fix (DD)** insulations boards are manufactured from volcanic rock, producing a non-combustible Dual Density Mineral Wool insulation board that provided unique fire and acoustic performance. Suitable for use with EshaFlex, EshaGum, EshaPlan, EshaUniversal, ReadySeal and ParaFlex roofing systems either bonded to an AluBase XL or EshaBase air and vapour control layer using EshaStik or Insta Stik adhesive, or mechanically fastened.

ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) is available in uniform or tapered variants. Achieves LPC LPS1181: Part 1 EXT A rating, complies with Zurich School and Academy Design guide and HTM05-03 guidance for healthcare.

### Suitable Applications

ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) is suitable for use in warm roof applications, including those where the client requires a 'non-combustible' insulation board within the roof construction. When used in the warm roof applications listed in the Fire Performance section below roof assemblies incorporating ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) achieve Broof(t4) Classification to BS EN 13501-5 as required by Approved Document B 2019 edition, Section B4, Limitations on roof coverings.

ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) is not suitable for use in roof terraces, enclosed balconies over heated space and insulated walkways or in an inverted roof construction.

ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) is not suitable for use in inverted roof applications on specified attachments such as projecting open balconies, projecting enclosed balconies, recessed open balconies or recessed enclosed balconies.

### Certificates

ISO 9001:2008 Quality Management System, ISO 14001:2004 Environmental Management System and BBA Certificate No. 21/5878.

### Fire Performance

#### As a warm roofing system

**BS EN 13501-5:2016** - When tested as part of a two layer EshaFlex Reinforced Bitumen Membrane (RBM) consisting of EshaFlex 370 FireSafe, EshaFlex 370 Plain, ProTherm ROCKWOOL HARDROCK Multi-Fix (DD), AluBase XL on a plywood deck the roofing system is classified as Broof(t4) in any thickness – see Warrington Fire EXAP Report 20553Q.

**BS 476 Part 3:2004** - When tested as part of a two layer EshaFlex Reinforced Bitumen Membrane (RBM) consisting of EshaFlex 370 FireSafe, EshaFlex 370 Plain, ProTherm ROCKWOOL HARDROCK Multi-Fix (DD), AluBase XL on a plywood deck the roofing system is classified as achieving EXT.F.A.B in any thickness – see Warrington Fire EXAP Report 20553N.

**BS EN 13501-1:2016** – ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) achieves Euro Class A2, s1-d0.

# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

### Health & Safety

Chemically inert and safe to use; see Safety Data Sheet for further information.

### Storage

Packs of ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) should be completely covered with weatherproof sheeting, and stored in a flat, dry area off the ground away from possible mechanical damage and sources of ignition. Keep dry at all times and not exposed to rain. Protect from prolonged exposure to sunlight and should be stored either under cover or covered with opaque polyethylene sheets.

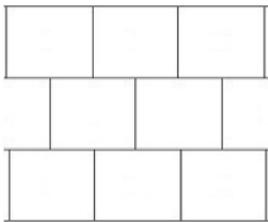
### Handling

Packs of ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) should be completely covered with weatherproof sheeting, and stored in a flat, dry area off the ground away from possible mechanical damage and sources of ignition. Keep dry at all times and not exposed to rain. Protect from prolonged exposure to sunlight and should be stored either under cover or covered with opaque polyethylene sheets.

- Do not drop boards
- To cut use a fine tooth saw
- Wear eye protection
- Damaged boards should not be used

Ensure accurate trimming to achieve close butt joints and continuity of insulation, particularly around projections through the roof.

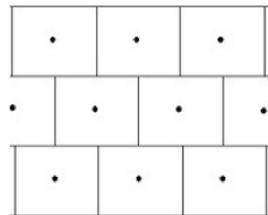
Cutting with power tools generates dust and should be kept to a minimum. If the use of power tools is necessary it should be carried



### Laying pattern

#### Bonded

- Lay with fleece top layer up.  
Bond to the vapour control layer control layer with EshaStik in accordance with the specification.
- Butt joint edges in a break bonded, staggered pattern laid at right angles to the edges of the roof or diagonally across the roof.



#### Mechanically Fixed

- ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) should be mechanically fastened to the structural deck using ProFast tube washers and mechanical fasteners in accordance with the Radmat specification.
- Attach using one fastener centrally per board.
- Butt joint edges in a break bonded, staggered pattern laid at right angles to the edges of the roof or diagonally across the roof.

### Installation Instructions

- Torch apply with minimum heat at all times onto the facing.
- Never apply the flame to the insulation facing.
- Consider using flame/edge guards when torching.
- In the event of any doubt, please contact Radmat Building Products.

# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

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### NBS Specification Clauses

#### ROCKWOOL Hardrock Multi-Fix (DD) Specification – Single Layer Solution

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **Standard:** Roofing grade to BS EN 13162.
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Hardrock (Dual Density) Multi-Fix.
- **Grade:** Dual Density.
- **Edges:** Square.
- **Thickness:** Single layer of 60 / 85 / 105 / 115 / 150 / 170 / 185mm
- **Facing:** Self Facing. (Fleece faced).
- **A2-s1,d0** Non-Combustible (Euroclass rating)

#### ROCKWOOL Hardrock Multi-Fix (DD) Specification – Single Layer Solution (Underlay)

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **Standard:** Roofing grade to BS EN 13162.
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Hardrock (Dual Density) Multi-Fix.
- **Grade:** Dual Density.
- **Edges:** Square.
- **Thickness:** Single layer of 120 / 150 / 170mm
- **Facing:** Self Facing. (Unfaced).
- **A2-s1,d0** Non-Combustible (Euroclass rating)

#### ROCKWOOL Hardrock Multi-Fix (DD) Specification – Double Layer Solution

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **Standard:** Roofing grade to BS EN 13162.
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Hardrock (Dual Density) Multi-Fix.
- **Grade:** Dual Density.
- **Edges:** Square.
- **Thickness:** Double layer of 150mm and 'Insert'mm
- **Facing:** Self Facing. (Unfaced base layer, Fleece faced upper layer)
- **A1 / A2-s1,d0** Non-Combustible (Euroclass rating)

#### ROCKWOOL Hardrock Multi-Fix (DD) Tapered Specification

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **Standard:** Roofing grade to BS EN 13162.
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Hardrock (Dual Density) Multi-Fix Tapered
- **Grade:** Dual Density
- **Edges:** Square.
- **Thickness:** Tapered Scheme (Thickness from XXXmm to XXXmm, XXXmm gutter)
- **Thermal:** Effective / Minimum (Delete as appropriate and insert value)
- **Facing:** Self Facing (Unfaced base layers, fleece faced upper and Tapered boards)
- **A1 / A2-s1,d0** Non-Combustible (Euroclass rating).

# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

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### NBS Specification Clauses (cont)

#### ROCKWOOL Acoustic Infill Specification

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **ACOUSTIC INFILL (TROUGH INFILL'S) MATERIAL FOR (WARM DECK) FLAT ROOF**
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780
- **Product reference:** ROCKWOOL Acoustic Infill's.
- **Product Facing:** Tissue Faced.
- **Thickness / Dimensions:** Manufactured to suit deck profile (Insert Deck Ref).
- **Absorption Rating:** Class C within perforated structural metal decking.

#### ROCKWOOL Acoustic Membrane Specification

##### 425 MINERAL WOOL (MW) WARM DECK ROOF INSULATION

- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Acoustic Membrane.
- **Thickness:** 2.5mm (5Kg/m<sup>2</sup>) / 5mm (10Kg/m<sup>2</sup>) (Delete as required)
- **Product Facing:** Tissue Faced

#### ROCKWOOL WOOL (Angle Fillet) Material for

##### 425 MINERAL WOOL (ANGLE FILLET) MATERIAL FOR (WARM DECK) FLAT ROOF BITUMEN SYSTEM

- **Standard:** Roofing grade to BS EN 13162.
- **Manufacturer:** ROCKWOOL Limited, Pencoed, Bridgend, CF35 6NY.Tel: 0871 222 1780.
- **Product reference:** ROCKWOOL Hardrock Multi-Fix Angle Fillet
- **Grade:** High Density
- **Thickness / Dimensions:** 1200 x 75 x 30mm
- **Product Facing:** Fleece faced
- **A2-s1,d0** Non-Combustible (Euroclass rating)

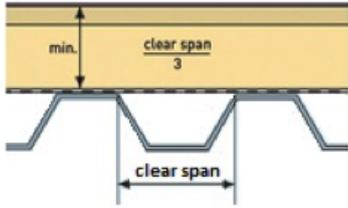
For a comprehensive NBS J31 specification contact Radmat Building Products.

# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

### DECLARED PERFORMANCE

<b>Thermal conductivity</b>	$\lambda$ value = 0.039 W/mK
<b>Typical weight</b>	150mm thick board = 28.8kg
<b>Density</b>	160 kg/m <sup>3</sup> (typical)
<b>Water vapour resistance</b>	Typical water vapour resistance = 5.9MNs/g
<b>Spanning metal decks</b>	<ul style="list-style-type: none"> <li>• The minimum board thickness is equal to the maximum trough width divided by 3.</li> <li>• The maximum trough width is 300mm</li> <li>• Long edges should be at right angles to the corrugations, all board joints should be fully supported by the deck.</li> </ul>



### PROTHERM ROCKWOOL HARDROCK MULTI-FIX (DD) CHARACTERISTICS

Thickness (mm)	Length (mm)	Width (mm)	R Value (m <sup>2</sup> k/W)	Typical U value on Metal deck (W/m <sup>2</sup> k)	Typical U value on Concrete deck (W/m <sup>2</sup> k)	Typical U value on Timber deck (W/m <sup>2</sup> k)
60	1200	1000	1.54	0.59	0.57	0.55
85	1200	1000	2.18	0.43	0.42	0.41
105	1200	1000	2.69	0.35	0.34	0.34
115	1200	1000	2.95	0.32	0.32	0.31
150	1200	1000	3.85	0.25	0.25	0.24
170	1200	1000	4.36	0.22	0.22	0.22
185	1200	1000	4.74	0.20	0.20	0.20
210 (150+60)	1200	1000	5.38	0.18	0.18	0.18
235 (150+85)	1200	1000	6.03	0.16	0.16	0.16
255 (150+105)	1200	1000	6.54	0.15	0.15	0.15

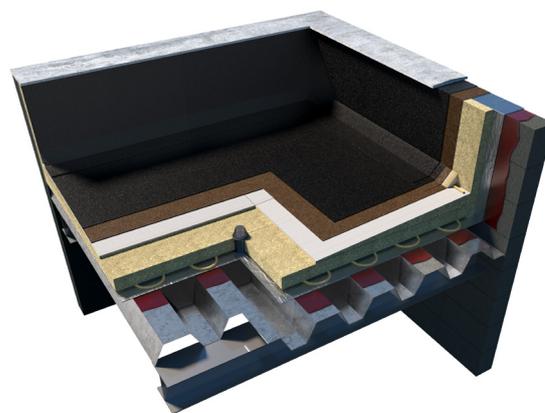
# ProTherm

## ROCKWOOL HARDROCK Multi-Fix (DD)

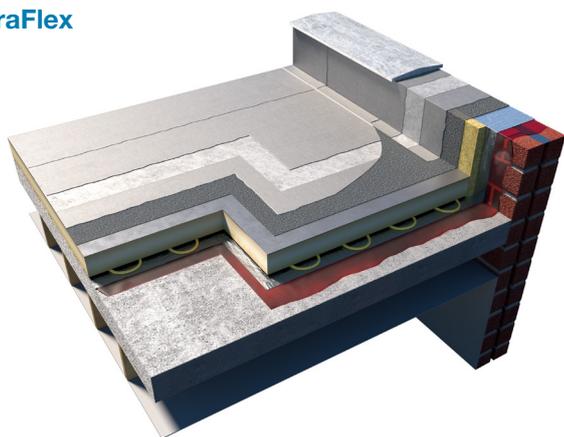
### Application

ProTherm ROCKWOOL HARDROCK Multi-Fix (DD) can be used with the following Radmat waterproofing systems:

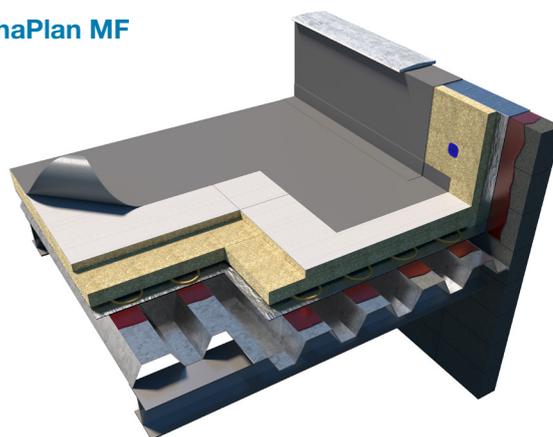
#### EshaFlex 370 FireSafe



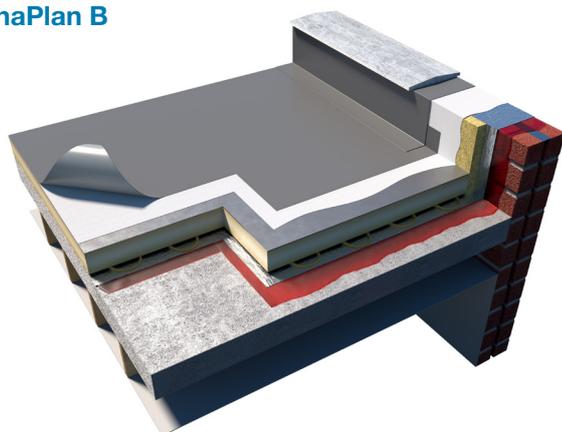
#### ParaFlex



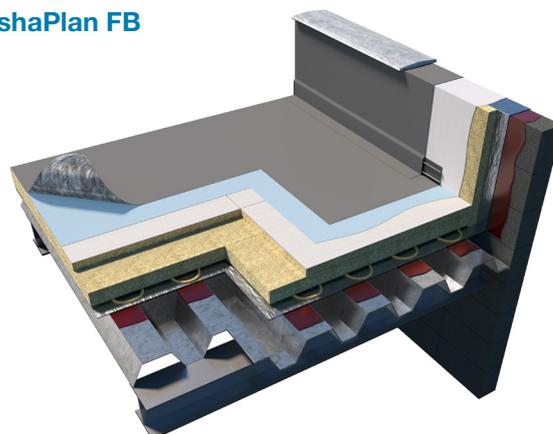
#### EshaPlan MF



#### EshaPlan B



#### EshaPlan FB



This information given in good faith and is based on the latest knowledge available to Radmat Building products 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.

For further information on Radmat products and services please call 01858 410372, email [techenquiries@radmat.com](mailto:techenquiries@radmat.com) or visit our website [www.radmat.com](http://www.radmat.com)

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