

# HARDROCK MULTI-FIX (DD) TAPERED

Non-combustible tapered insulation for flat roofs





A high-angle photograph of two men in business attire looking at architectural blueprints spread out on a table. The man on the left is wearing glasses and a dark sweater, pointing at a specific area on the plan. The man on the right is wearing a light blue shirt. The blueprints are detailed technical drawings with various lines, circles, and text. A white text box is overlaid on the right side of the image, containing the product name and description.

## **HARDROCK MULTI-FIX (DD) TAPERED**

Suitable for flat roofs, HARDROCK Multi-Fix (DD) Tapered is a non-combustible and BBA-approved insulation board, fabricated to a fall for effective management of rainwater.

The product is backed by a complete design to delivery service.



## Advantages

- BBA-approved
- Non-combustible Euroclass A2-s1, d0
- Bespoke design and thermal calculation service
- Precision manufacture and supply to order
- Compatible with most weatherproofing systems
- Excellent sound reduction and absorption
- Dimensionally stable
- Suitable for new build and refurbishment

## Description

ROCKWOOL HARDROCK Multi-Fix (DD) Tapered is a stone wool insulation board faced with a mineral-coated white fleece. The product is engineered to a fall for effective rain water management.

Manufactured from volcanic stone, HARDROCK Multi-Fix (DD) Tapered achieves Euroclass A2-s1, d0 (non-combustible).

## Applications

HARDROCK Multi-Fix (DD) Tapered is fully compatible for use with the following roofing systems:\*

- Fully bonded, partially bonded, mechanically fastened single ply membrane systems, and EPDM membrane systems
- Torch applied, bitumen based, and mastic asphalt built up systems
- Liquid applied systems

\*BBA approval subject to use with a waterproofing membrane that has a current BBA Agrément Certificate. For more information please see Agrément Certificate 21/5878.

## Performance

### Fire performance

HARDROCK Multi-fix (DD) Tapered achieves Euroclass A2-s1, d0 (non-combustible).

Flat roof constructions featuring HARDROCK Multi-Fix (DD) have attained a rating of "Grade EXT-A", the highest possible classification under LPS 1181: Part 1, by successfully passing both the LPS1181 Part 1 'reaction to fire' and LPS1208 'resistance to fire' tests.

In addition, a fire resistance performance of up to 120 minutes (integrity and insulation) to BS 476-21 can be achieved.

HARDROCK Multi-fix (DD) Tapered is covered by the above approvals with certain restrictions - more information can be found in LPCB certificates 022g and 022a, available on the ROCKWOOL website.

### Thermal performance

HARDROCK Multi-fix (DD) Tapered boards have a thermal conductivity of 0.039 W/mK.

When calculating the U-value of a tapered roof, Building Regulations require that the entire roof is taken into account, including gutter details etc.

Calculations should be carried out in accordance with the method given in Annex C of BS EN ISO 6946, which accurately accounts for varying insulation thickness across a roof.

For more information please contact ROCKWOOL Technical Solutions.

### Resistance to moisture

HARDROCK Multi-Fix Tapered is impregnated with a water repelling agent during manufacture.

## Technical Information

### Standards & approvals

- BBA approved (21/5878)
- CE-marked to BS EN 13162
- LPCB approved (022a & 022g)

### Dimensions

Manufactured at 1200x1000mm, to suit a range of falls. Please contact your local ROCKWOOL representative for more information.

### Storage and handling

Pallets are wrapped in a polythene shroud for protection during transit and for short term protection if stored outside. For longer term protection, pallets should be stored under a secure waterproof covering.

Pallets should be stacked no more than two-high for safety. Where craning of pallets to roof level is required, the use of a pallet fork attachment is recommended.

### Specify SPRA

The Single Ply Roofing Association (SPRA) represents membrane manufacturers, associated component manufacturers and specialist subcontractors and aims to ensure the delivery of best value single ply roofing systems, through a quality assured partnership.

By specifying products and specialist installation by SPRA Manufacturer, Associate and Contractor members you can be assured that all parties meet strict quality criteria. Compliance with these criteria and with the Code of Conduct is assessed at application, by annual audit and by random spot checks.

For further information, and to obtain copies of the SPRA Design Guide and other documents, go to [spra.co.uk](http://spra.co.uk) or call 0845 154 7188.



## Installation

### Preparation work for refurbishment

Unless the existing roof finish is known to be sound and watertight, and the type and condition of the surface suitable for bonding or mechanical fixing of HARDROCK Multi-fix (DD) Tapered, all previously applied finishes and, if necessary, insulation layers should first of all be removed. It is recommended that the specifier/contractor checks the existing levels to ensure that the falls are correct.

### Achieved design fall

Where practical, it is recommended that the minimum achieved design fall is 1:60, with an enhance gradient of 1:40 at critical drainage points, such as gutters or outlets. Other falls are available for specific projects.

### Good roof design

Flat roofs may include a variety of features such as rooflights, concrete plinths and air-handling units. These features can cause ponding water to collect unless correctly detailed.

Standing water may also occur at roof edges, held back by the extra thickness of roofing membrane, or where outlets are positioned at some distance from each other. Where such situations arise, ROCKWOOL® offers various solutions, by means of additional design features, which also benefit the long-term performance of the overall roofing system.

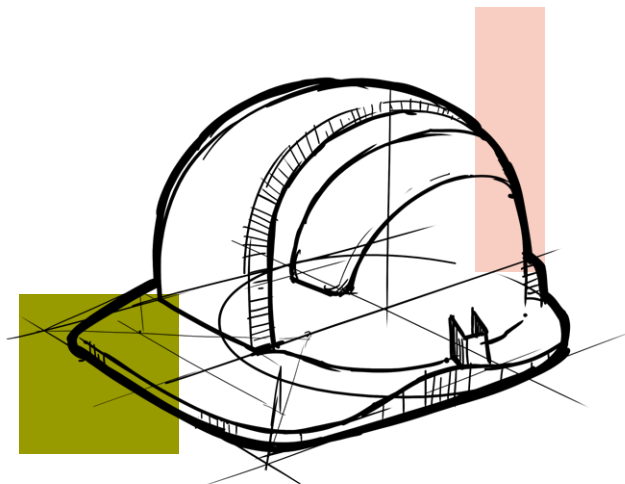
HARDROCK Multi-fix (DD) Tapered can also be provided for level gutters or other similar constructions. Even where existing falls are available and flat ROCKWOOL® boards are used, a tapered scheme may be required at certain locations on the roof to enhance drainage.

Note that the effectiveness of tapered gutters is restricted to the available height created by ROCKWOOL® insulation, plus other design considerations. Refer to ROCKWOOL® Technical Support for assistance with specification clauses relevant to your project.

### Fixing

Boards are delivered to site individually marked with a positional code corresponding to the detailed layout drawing provided. The board layout should strictly follow that shown on the drawing, and to avoid error it is advisable to place each board in position temporarily prior to attachment.

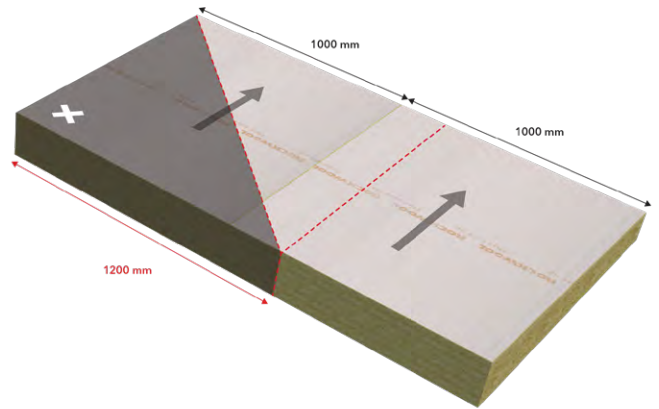
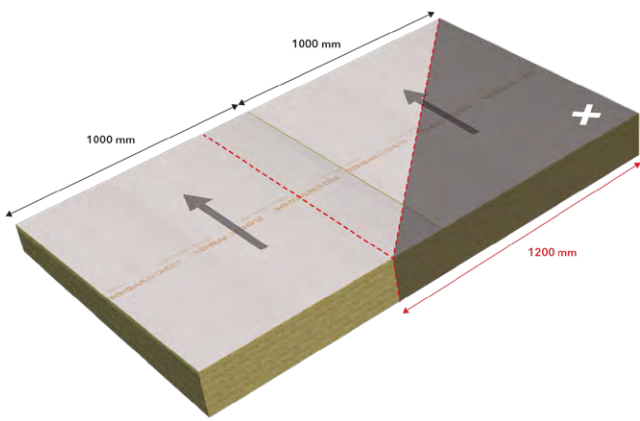
The boards are either fully bonded to the vapour control layer with hot bitumen or glue or mechanically fastened through the vapour control layer to the deck.



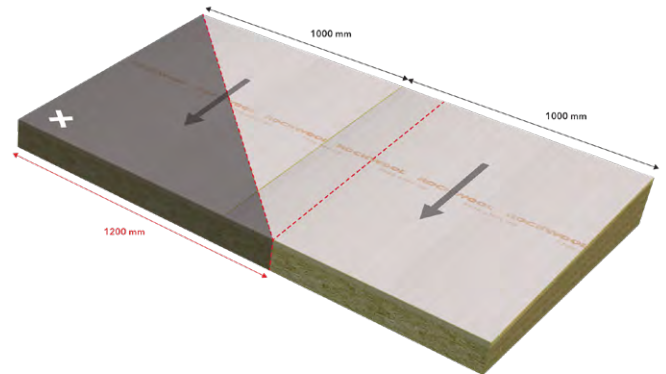
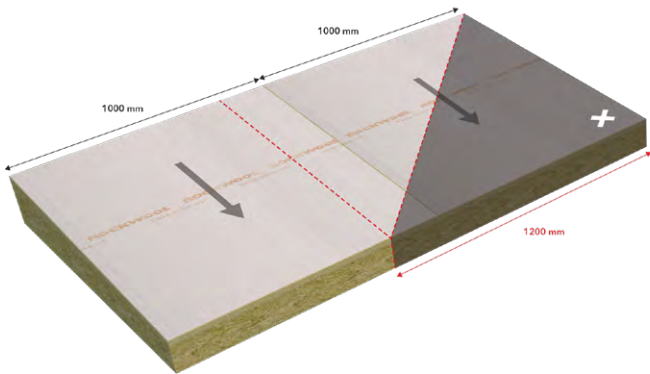
### Mitre details

To form hips and valleys, cut and discard the shaded sections of insulation as shown below.

#### Hip



#### Valley



## Sustainability

As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL products provide outstanding thermal protection as well as four added benefits:



**Fire resistance**



**Acoustic comfort**



**Sustainable materials**



**Durability**

## Environment

Made from a renewable and plentiful naturally occurring resource, ROCKWOOL insulation saves fuel costs and energy in use and relies on trapped air for its thermal properties.

ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).

ROCKWOOL is approximately 97% recyclable. For waste ROCKWOOL material that may be generated during installation or at end of life, we are happy to discuss the individual requirements of contractors and users considering returning these materials to our factory for recycling.

## Health & Safety

The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC: ROCKWOOL fibres are not classified as a possible human carcinogen.

A Material Safety Data Sheet is available and can be downloaded from [rockwool.com/uk](http://rockwool.com/uk) to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).



## Interested?

For further information, contact the Technical Solutions Team on 01656 868490 or email [technical.solutions@rockwool.com](mailto:technical.solutions@rockwool.com)

Visit [www.rockwool.com/uk](http://www.rockwool.com/uk) to view our complete range of products and services.

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ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the largest assets in the ROCKWOOL Group, and thus well protected and defended by us throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion. You must apply for a Trade Mark Usage Agreement. To apply, write to:  
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