



# RockFall®

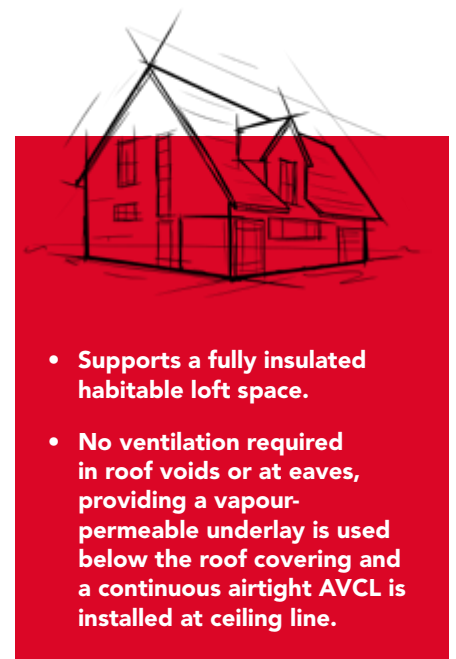
## Non-combustible insulation for warm pitched roofs.

ROCKWOOL RockFall insulation is compatible with most pitched systems, and is manufactured with non-combustible stone wool insulation which can help to enhance acoustic performance.

RockFall has been specially designed as an over rafter mineral wool insulation system for warm pitched roofs and habitable lofts. The system is made up of HardRock® Multi-Fix (DD) boards that are mechanically fixed over the rafters, NyRock® Frame Slab 032 or ROCKWOOL Flexi® is then fitted between the rafters.

The build-up of ROCKWOOL mineral wool insulation provides thermal performance to help keep homes cool in summer and warm in winter. The insulation is also used for acoustic and fire performance, reducing the level of noise entering buildings through the roof and acting as a barrier should a fire break out.

- Non-combustible stone wool insulation.
- Tests of our stone wool recovered from old buildings have shown that it retains its performance characteristics – thermal, mechanical, fire resistance – for at least 65 years, and probably longer<sup>1</sup>.
- Can be recycled and reprocessed through our Rockcycle® programme<sup>2</sup>, helping to reduce construction waste sent to landfill.



<sup>1</sup>Testing done at Danish Technical Institute (DTI) in 2023, "Testing ROCKWOOL insulation from CPH airport hangar 4"  
<sup>2</sup>[www.rockwool.com/uk/about-us/sustainability/recycling](http://www.rockwool.com/uk/about-us/sustainability/recycling)

## PERFORMANCE

### Thermal performance

The thermal conductivity of HardRock Multi-Fix (DD) roofing boards is 0.039 W/mK ((λ90:90).

The thermal conductivity of NyRock Frame Slab 032 is 0.032 W/mK ((λ.90:90).

The thermal conductivity of ROCKWOOL Flexi is 0.038 W/mK, and 0.035 W/mK for 140mm thicknesses and above.

### Acoustic performance

The RockFall system can provide a level of noise reduction entering buildings through the roof. Noise reduction will be dependent on actual construction details. The non-directional fibre orientation and density of ROCKWOOL stone wool help absorb sound waves and dampen vibrations, reducing the transmission of external noise when used in external wall applications.

### Fire performance

HardRock Multi-Fix (DD) is classified as Euroclass A2-s1, d0 when assessed to EN 13501-1.

NyRock Frame Slab 032 is classified as Euroclass A1 when assessed to EN 13501-1.

ROCKWOOL Flexi is classified as Euroclass A1 when assessed to BS EN 13501-1.

### Condensation control

The vapour resistivity of ROCKWOOL mineral wool is 5MN/gm. The slabs therefore reduce the risk of condensation, allowing natural drying-out of the structure.

### U-values

Construction 1:

47mm wide rafters at 600mm centres 7.8% timber bridging.

Over rafters: HardRock Multi-Fix (DD) 60mm to 185mm.

Between rafters: NyRock Frame Slab 032 fully filling.

U-values (W/m <sup>2</sup> K)	Over rafters	Between rafters
	HardRock Multi-Fix (DD) (mm)	NyRock Frame Slab 032 (mm)
0.17	85	140
0.16	85	140
0.15	60	200
0.14	115	140
0.13	85	200
0.12	105	200
0.11	185	140
0.10	220 (105+115)	140

Double-layering would need to be considered with structural engineer.

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Construction 2:

47mm wide rafters at 600mm centres 7.8% timber bridging.

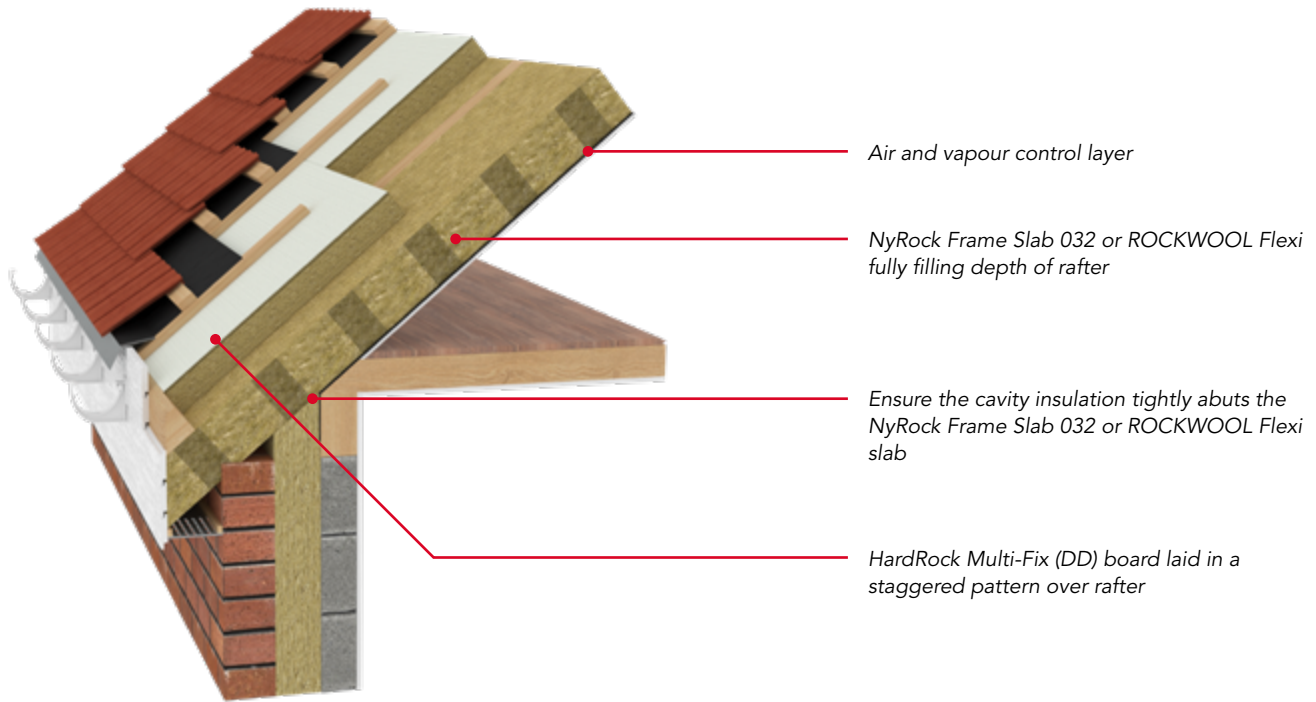
Over rafters: HardRock Multi-Fix (DD) 60mm to 185mm.

Between rafters: ROCKWOOL Flexi fully filling.

U-values (W/m <sup>2</sup> K)	Over rafters	Between rafters
	HardRock Multi-Fix (DD) (mm)	ROCKWOOL Flexi (mm)
0.17	85	140
0.16	105	140
0.16	60	200
0.15	115	140
0.15	60	220
0.12	85	200
0.11	150	140
0.13	115	200
0.11	105	200
0.11	185	140
0.11	150	200
0.11	115	220
0.11	150	220
0.10	185	200

Double-layering would need to be considered with structural engineer.

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The RockFall system minimises thermal bridging and provides an acoustic barrier against external noise pollution. The system comprises a HardRock Multi-Fix (DD) board mechanically fixed over the rafters with NyRock Frame Slab 032 or ROCKWOOL Flexi fitted between rafters. An airtight AVCL membrane is stapled to the underside of the rafters finished with 12.5mm plasterboard.

*The thicknesses shown are to meet the specified U-values and may not reflect the commercial thicknesses available. All stated U-values should be verified with the ROCKWOOL Technical Solutions Team before ordering.*

## PRODUCT INFORMATION

### HardRock Multi-Fix (DD)

Length (mm)	Width (mm)	Standard thicknesses (mm)
1200	1000	Available in a range of sizes between 60mm and 185mm. Please see current price list for availability.

### NyRock Frame Slab 032

Length (mm)	Width (mm)	Standard thicknesses (mm)
1200	570	Available in a range of sizes between 50mm and 200mm. Please see current price list for availability.

### ROCKWOOL Flexi

Length (mm)	Width (mm)	Standard thicknesses (mm)
1200	400 or 600	Available in a range of sizes between 50mm and 200mm. Please see current price list for availability.

## STANDARDS AND APPROVALS

Certificate
HardRock Multi-Fix (DD) and NyRock Frame Slab 032 or ROCKWOOL Flexi satisfies the requirements of BS EN 13162 – “Thermal insulation products for buildings. Factory made mineral wool (MW) products”.
Manufactured under ISO 14001 Environmental Management Systems, and ISO 9001 Quality Management Systems.

The current version of ROCKWOOL’s Declaration of Performance (DoP) can be found using the link below:

[Declaration of Performance >](#)

**For more information visit [rockwool.com/uk](http://rockwool.com/uk)**

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## DESIGN CONSIDERATIONS

The RockFall system is capable of resisting the wind and snow loads that are normally experienced in the United Kingdom. However, the fixing supplier should be consulted for advice.

RockFall is suitable for roof pitches of 15° and above, including mansard roofs.

### Structural stability

The RockFall system is suitable for most roof pitches. It is not designed to add to the structural stability of the roof.

- Advice regarding the requirements for any additional bracing etc, must be sought from a qualified engineer or the truss manufacturer (see "installation guidance" for further detail)
- The HardRock Multi-Fix (DD) board is not an alternative to cross bracing; the roof design should be based on the following structural euro codes and recommendations:
  - BS EN 1991-1-1: imposed loads for buildings.
  - BS EN 1991-1-3: snow loads.
  - BS EN 1991-1-4: wind actions.

### Water vapour and control of condensation in roofs

- No ventilation is required in roof voids or at eaves, etc, providing a vapour-permeable underlay is used below the roof covering and a continuous airtight AVCL is installed at ceiling line. Please seek guidance from the relevant membrane manufacturer to ensure the suitability of the vapour-permeable membrane.
- BS5250 provides guidance for the design of different roof types to minimise problems of condensation.
- Condensation risks can be attributed to various sources, such as areas of high humidity, the purpose/use of the building and the type of external roof covering.

Further guidance on preventing interstitial condensation can also be found in BRE Digest 369.

### Minimising thermal bridging

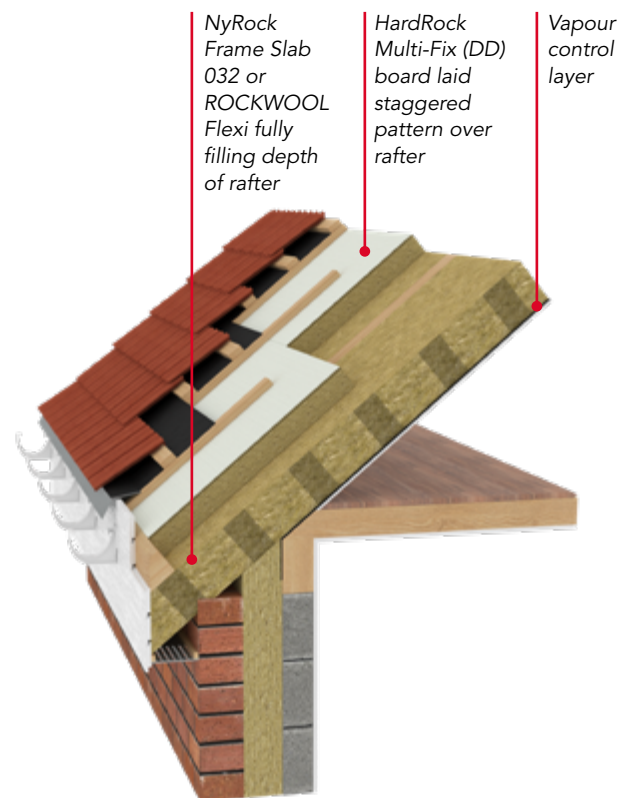
To limit heat loss and prevent problems such as thermal bridging and condensation occurrence, junctions between elements should be designed to maintain continuity of insulation. For roofs, the key junctions are those at eaves and gable, where the wall insulation should meet roof insulation.

To avoid these issues, the following points should be addressed:

- At eaves, the wall insulation should be continued between the rafters until it butts the underside of the HardRock Multi-Fix (DD) boards (or alternatively to the underside of the NyRock Frame Slab 032 or ROCKWOOL Flexi).
- The habitable roof void should be completely insulated, including any associated gable walls. All roof insulation boards should be tightly fitted, with no gaps.
- Any gaps around ridges, roof lights or similar penetrations should be filled and sealed.
- Ensure that all fascias and soffits are non-vented and are sealed with mastic at abutment with walls.

### Construction

A timber rafter pitched roof with tiles or slates on battens and counter battens and an LR vapour permeable underlay. HardRock Multi-Fix (DD) board laid over the rafters and NyRock Frame Slab 032 or ROCKWOOL Flexi friction-fitted between the rafters, a continuous airtight AVCL, with all joints lapped and sealed stapled to the underside of rafters, ceiling finished with 12.5mm plasterboard.

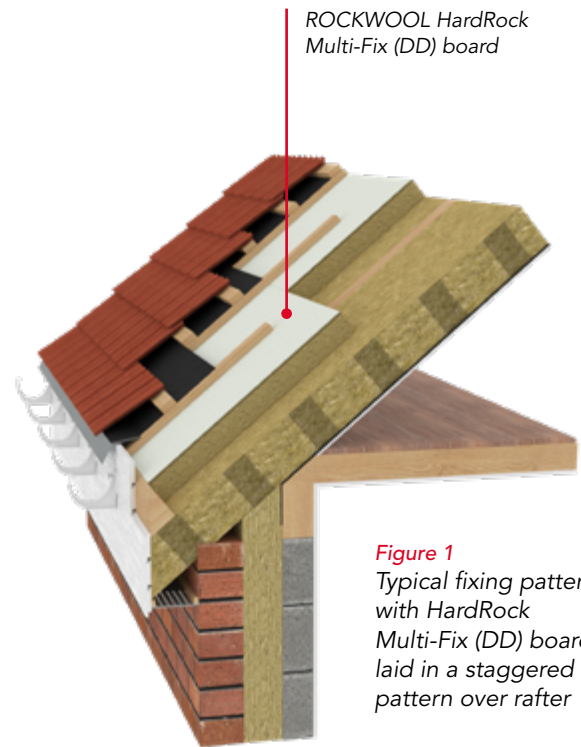


# RockFall

## INSTALLATION

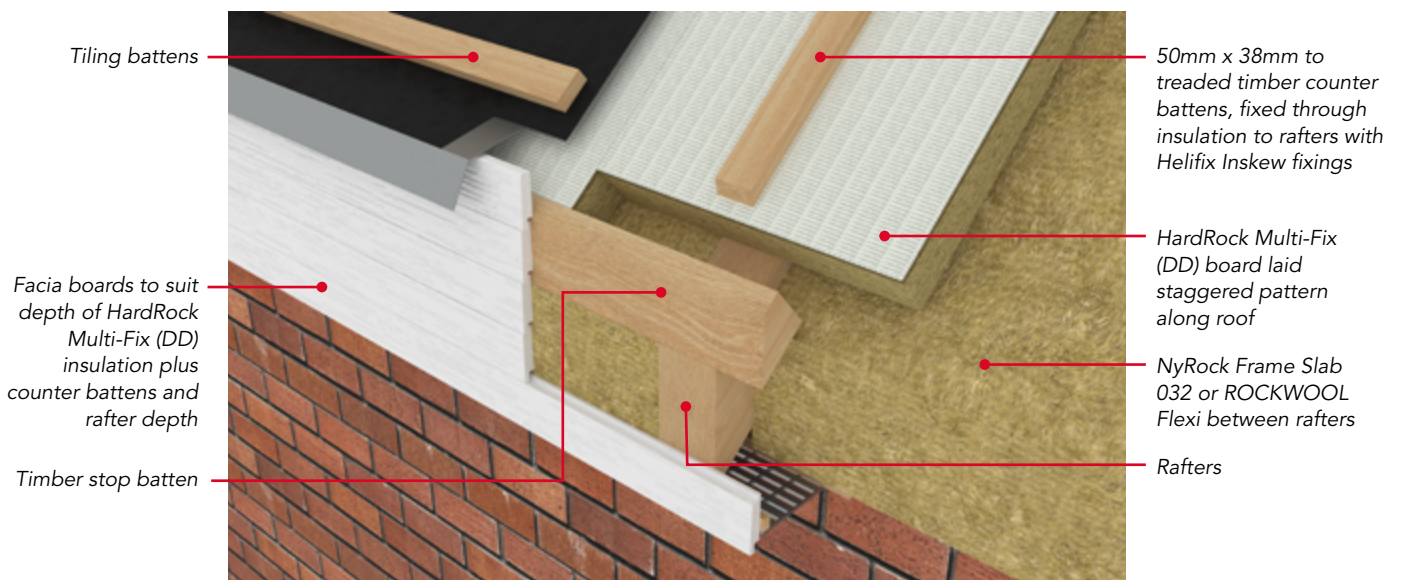
### HardRock Multi-Fix (DD) board installation

- A timber stop batten (see Figure 2) is fixed across the foot of the rafters. This is to relieve the horizontal load on the fascia boards and to create resistance against downward counter-batten load.
- Starting from the timber stop rail, slabs should be close-butted at all vertical and horizontal joints. The horizontal joints of the insulation should be staggered in accordance with good practice.
- Counter battens (35mm x 50mm) spaced at rafter positions should be fixed through using spiral fixings (e.g., Helifix Inskew) at a maximum of 400mm centres with minimum penetration in the rafter of 35mm.
- The LR underlay can be installed either below or above the counter battens. When installed above the counter battens, the LR underlay should be draped by no less than 10mm allowing free drainage down the roof slope.
- The fascia height must be sufficient to accommodate the level of the roof finish up to HardRock Multi-Fix (DD) boards and counter-battens.
- For a typical installation, a vapour-permeable membrane is placed under tiling battens (see Figure 2).



**Figure 1**  
Typical fixing pattern with HardRock Multi-Fix (DD) board laid in a staggered pattern over rafter

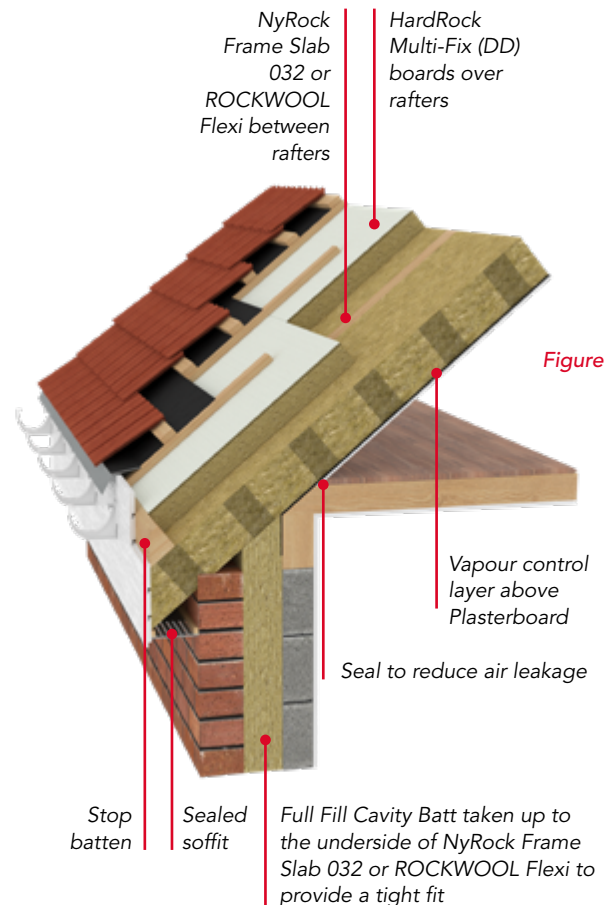
**Figure 2**



# RockFall

## NyRock Frame Slab 032 or ROCKWOOL Flexi Installation

- Completed from below, NyRock Frame Slab 032 or ROCKWOOL Flexi is friction-fitted and close-butted between the rafters, so it is in direct contact with the underside of the HardRock Multi-Fix (DD) board with no air gaps between the two layers.
- To avoid a thermal bridge at the eaves, the NyRock Frame Slab 032 or ROCKWOOL Flexi should link with the wall insulation.
- At eaves, the wall insulation should be continued between the rafters until it butts the underside of the HardRock Multi-Fix (DD) boards (or alternatively to the underside of the NyRock Frame Slab 032 or ROCKWOOL Flexi).
- To avoid a thermal bridge at the eaves, there must be continuity between roof and wall insulation. This can be achieved by either:
  - Extending the height of the wall insulation to the underside of the HardRock Multi-Fix (DD), NyRock Frame Slab 032 or ROCKWOOL Flexi, or
  - Extending the NyRock Frame Slab 032 or ROCKWOOL Flexi into the eaves box to link with the wall insulation.



## Eaves details

- Figure 3 shows a timber stop batten fixed to the foot of the rafters. This provides resistance against the downward counter-batten loads, relieving the fascia board of any horizontally applied load.
- A continuous plywood tilting board fixed to the top of the fascia carries the breather membrane over and into the gutter so that it does not sag and allow moisture to collect at the eaves position.

## Ventilation

- There is no requirement for eaves ventilation when using the RockFall system. However, for some tight-fitting outer coverings (e.g., fibre cement slates or metal tiling) there may be a need to ventilate the batten void between the roof covering and the underlay using an "over fascia" ventilator. It is therefore important to follow the membrane manufacturer's recommendations and third-party certifiers, to ensure diffusion of water vapour to the outside.
- A continuous airtight vapour control layer (AVCL), with all joints lapped and sealed must be used directly above the internal ceiling lining to prevent water vapour entering the roof envelope and to achieve air tightness of the habitable space. To achieve a truly sealed roof, all penetrations and all junctions must be adequately sealed (e.g., between the floor and sloping ceiling).

## Fixings

- Information and advice on the type and frequency of fixings should be obtained from the relevant manufacturers.
- On steeper roof pitches, such as mansard roofs, additional timber stop battens may be required to resist shear forces, as well as additional mechanical fixings.

## Valley and ridge details

- RockFall boards should be mitred to make a tight butt joint at the ridge and valley locations.
- The breather membrane should be made continuous with minimum sealed overlaps of 150mm. Lead valley gutters are an acceptable alternative to pre-formed valley tiles or slates and should be constructed in accordance with good roofing practice.

Further guidance can be sought from The Lead Sheet Association (LSA).

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## SPECIFICATION CLAUSES

The NBS clauses that include HardRock Multi-Fix (DD), ROCKWOOL Flexi and NyRock Frame Slab 032 can be found on NBS  
Source: [source.thenbs.com](https://source.thenbs.com)

### LEGAL NOTICES

#### General safety requirements – Building Safety Act 2022

ROCKWOOL Limited is committed to supporting specifiers, resellers, and users of ROCKWOOL products for the full life cycle of the product to comply with the obligations and responsibilities set out in the Building Safety Act 2022. With regard to the general safety requirements of the Act, ROCKWOOL Limited cannot control or foresee every situation where its products might be used. We therefore strongly advise that specifiers, resellers, and users contact us where use of ROCKWOOL products is contemplated in applications different from those explicitly described in the latest, relevant ROCKWOOL product datasheets; especially in applications that can be reasonably foreseen as critical to safety.

ROCKWOOL Limited reserves the right to amend the specification of its products without notice. Changes to the ROCKWOOL manufacturing process, or to pertinent regulations, may be reflected in changes to tested and certified product performance. Whilst ROCKWOOL Limited endeavours to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law or other developments affecting the accuracy of the information contained in our publications.

ROCKWOOL Limited does not accept responsibility for the consequences of using (including testing or certifying) its products in applications different from those explicitly described in the relevant ROCKWOOL product datasheets. Expert advice should be sought, and ROCKWOOL Limited should be contacted, where such different use is contemplated, or where the extent of any use described by ROCKWOOL Limited is in doubt.

#### The ROCKWOOL Trademark

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 most important assets of the ROCKWOOL Group, and is therefore well-protected and defended by ROCKWOOL 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:  
[marketcom@rockwool.com](mailto:marketcom@rockwool.com)

#### Trademarks

Registered trademarks of the ROCKWOOL Group include but are not limited to:

ROCKWOOL®, RockClose®, RainScreen Duo Slab®, HardRock®, RockFloor®, Flexi®, RockFall®, FirePro®, DuctRock®, BeamClad®, NyRock®

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#### Health and safety

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).

#### Photography and illustrations

The product illustrations are the property of ROCKWOOL Limited and have been created for indicative purposes only.

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If you require permission to use ROCKWOOL images, you must apply for a Usage Agreement.

To apply, write to:  
[marketcom@rockwool.com](mailto:marketcom@rockwool.com)

# RockFall

Company:	ROCKWOOL Limited
Version:	Version 3.04 May 2026 <i>(to check this is the latest version, please refer to rockwool.com/uk)</i>
Revised on:	01.05.2026
Product name:	RockFall®
Replaces version:	Version 3.03 December 2025
Changes made:	<ul style="list-style-type: none"><li>• Updated standards and approvals</li><li>• Updated design considerations</li><li>• Updated diagrams</li></ul>
Additional information:	N/A

*Please ensure you are using the latest version of this document by verifying it on our official website. Do not rely on printed or previously downloaded copies, as these may be out of date.*

*Please contact the ROCKWOOL Technical Support Team if you would like to access archived versions of this document.*

## ROCKWOOL stone wool – safe to install and live alongside

There are no hazardous classifications associated with stone wool insulation manufactured by ROCKWOOL UK according to EU REACH and UK REACH regulations on health and the environment.

ROCKWOOL safe use instruction sheets and material safety data sheets (where applicable) can be downloaded [here](#).



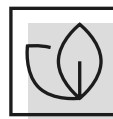
### Sustainability

ROCKWOOL products are used to help enrich modern living, supporting more resilient and comfortable buildings.

We transform abundant, natural volcanic rock into stone wool insulation products that help our customers tackle energy consumption, noise pollution, fire resilience, and climate change challenges such as water scarcity and flooding.

Since our stone wool is endlessly recyclable with no loss in its performance properties, we can take back clean, uncontaminated new off-cuts, and unused ROCKWOOL stone wool insulation from construction sites in the UK. Our service, Rockcycle®, takes back our stone wool and recycles it back into production where it is used to make new ROCKWOOL products.

Our annual sustainability reports, which set out progress against our sustainability goals and further details of the positive impacts of using our products, can be found on our website.



### Environment

ROCKWOOL takes a fact-based, auditable approach to documenting our progress in maximising our products' positive impact and minimising the effect our operations have on the environment, backed by third-party references and methodologies. Further details can be found online in our annual sustainability report.

Our high-tech production process uses filters, pre-heaters, after-burners, and other cleaning and collection systems that help to reduce the effects of our manufacturing operations on the environment.

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

