

ROCKWOOL®

Red Book

Comprehensive ROCKWOOL solutions guide
for facades, walls, floors, and roofs.



Navigating the ROCKWOOL Red Book

As an interactive guide, the ROCKWOOL Red Book provides direct access to hundreds of digital resources, helping to save you time by simplifying the specification of our facade, wall, floor, and roof solutions.

Through the interactive product pages, navigate directly to:

- Product datasheets
- NBS clauses

Simply look for hyperlinked text.

On each product page, a series of icons highlight where further technical documentation or calculation tools are available:



U-value calculator



Declaration of Performance



BIM objects



BBA certification

To navigate back to the contents section, click on: [ROCKWOOL Red Book](#) at the bottom of every page.

The following shows where you can typically find each of the digital resources on the product pages:

Ventilated rainscreen

Standards & approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
RainScreen Duo Slab	✓	Euroclass A1	-	BBA Approved (Certificate 17/5042)
NyRock RainScreen 032	✓	Euroclass A1	-	BBA Approved (Certificate 22/6417)
Steel Frame Slab	✓	Euroclass A1	-	-
NyRock Frame 032	✓	Euroclass A1	-	-
SP FireStop EN	-	-	Integrity: Up to 120mins** Insulation: Up to 120mins**	-
SP FireStop OSCB	-	-	Integrity: Up to 120mins Insulation: Up to 120mins	-

*Meets the criteria of Approved Document E, Section 2 - Separating walls and associated flanking constructions for new buildings
**Subject to the application

Whilst the external wall is not typically required to have a Fire Resistance performance itself, the compartment floors and walls abutting it do, as such the SP FireStop EN have been tested within representative wall and floor substrates to prove their fire resistance performance. It is important to note that the Fire Resistance performance of the firestop is only as good as the performance of the supporting substrates in to which it is installed. Where Fire-stopping is installed up to a non-fire resisting external wall then the performance of the fire-stop will be limited to the performance of the wall itself.

Product specification

Product	NBS Clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
Steel Frame Slab	K10-145, K10-155, K10-165	1200	600	50-200
NyRock Frame 032	P10-140	1200	570, 400	50-200
RainScreen Duo Slab	H11-110, H11-180, H10-174, P10-217	1200	600	50-230
NyRock RainScreen 032	H11-110, H11-180, H10-174, P10-217	1200	600	50-200
SP FireStop EN	F30-180, P10-432, P13-360	1200	1000	75-90
SP FireStop OSCB	F30-180, P10-432, P13-360	1000	75-575	90

*Thickness options may be subject to minimum production volume. For further information on our standard thickness range please visit www.osbba.co.uk

BIM objects

- RainScreen Duo Slab
- SP FireStop EN
- NyRock Frame 032
- NyRock RainScreen 032

ROCKWOOL offer a complementary non-combustible insulation and fire barrier solution for ventilated rainscreen walls.

ROCKWOOL provide a range of products for rainscreen facade applications which now includes low lambda NyRock RainScreen 032, this can be combined with NyRock Frame 032 for improved thermal performance. SP FireStop EN and SP FireStop OSCB provide up to two hours integrity and insulation in the event of a fire.

BBA certification

- RainScreen Duo Slab, NyRock RainScreen 032, Steel Frame Slab and NyRock Frame 032 are Euroclass A1, non combustible and can be used on buildings of any height.
- SP FireStop EN and SP FireStop OSCB are tested to provide up to two hours integrity and insulation in the event of a fire.
- RainScreen Duo Slab and NyRock RainScreen 032 have been certified by the BBA for use in RainScreen Cladding Systems.

U-value calculator

RainScreen Duo Slab (mm)	ROCKWOOL Steel Frame Slab with frame (mm)	Layers of 15mm acoustic plasterboard (mm)	f	f Rockplane AZ			ACM (Booth Muller)		
				R _f	L _f + C _f	R _f	R _f	R _f + C _f	
50	90	2	5	30	58	47	30	58	45
	90	1	5.3*	47*	58	45	30	58	45
	90	2	5	52	58	49	30	58	49
100	90	1	5.9*	51*	58*	48*	30	58	48*
	90	2	4.2*	54	60	52	30	58	52
	90	1	4.2*	53*	60*	52*	30	58	52*

*Assessed against the data held within test report C/23666/703

Declaration of Performance

Product datasheets

NBS clauses

BIM objects

Wherever further technical content is available, this will be denoted by a hyperlink. Throughout the guide you will also find additional practical resources and guides which will be indicated by the following icon:



If you need additional assistance with specifying ROCKWOOL solutions, please email technical.solutions@rockwool.co.uk or call 01656 868 490



Contents

	Page No.
Introducing the ROCKWOOL Red Book	<u>6</u>
Fire	
▪ Understanding fire properties	<u>8</u>
▪ Understanding reaction to fire	<u>10</u>
▪ Understanding fire resistance	<u>12</u>
▪ Understanding fire regulations	<u>14</u>
Thermal	
▪ Understanding thermal performance	<u>16</u>
▪ Understanding thermal regulations	<u>18</u>
Acoustics	
▪ Understanding acoustics	<u>22</u>
▪ Understanding acoustic regulations	<u>24</u>
▪ Built upon responsible business principles	<u>26</u>
Sustainability	
▪ Build to last	<u>28</u>
ROCKWOOL – the complete solution	<u>30</u>
Technical tools and resources	<u>34</u>
Solutions for every application	<u>36</u>
Facade and external wall solutions	
ETICS wall systems	<u>40</u>
Masonry cavity walls – full fill	<u>42</u>
Masonry cavity walls – partial fill	<u>44</u>
Timber frame walls	<u>46</u>
Steel framed walls	<u>48</u>
Separating walls	<u>50</u>
Ventilated rainscreen	<u>52</u>
Twin skin metal cladding	<u>54</u>
Flat roof solutions	
HardRock® Multi-Fix DD	<u>58</u>
Pitched roof solutions	
Cold pitched roofs	<u>62</u>
Warm pitched roofs	<u>64</u>
Floor solutions	
Ground floors – ground bearing slab	<u>68</u>
Ground floors – suspended beam and block	<u>69</u>
Ground floors – suspended timber	<u>70</u>
Separating floors – acoustic timber	<u>72</u>
Internal walls and floors	
Internal walls and floors – timber and metal stud	<u>76</u>
Case studies	<u>78</u>
The CPD programme	<u>80</u>
Additional resources	<u>84</u>
Legal disclaimer	<u>85</u>

Introducing the ROCKWOOL Red Book

Welcome to the ROCKWOOL Red Book – your comprehensive guide to specifying insulation solutions that perform in a wide range of building applications.

The ROCKWOOL Red Book has been developed to provide a detailed technical resource which supports the specification of ROCKWOOL stone wool insulation solutions from a single source.

Helping to save time and simplifying the identification of insulation for through-wall, floor, and roof constructions, the ROCKWOOL Red Book will guide you through key technical criteria and relevant performance data – supporting the development of building specifications which simultaneously address fire, thermal, acoustic and sustainability requirements.

Use the ROCKWOOL Red Book to:

- Enhance your understanding of the current building regulations in relation to thermal, acoustic, and fire performance – including Euroclass ratings – and build in-depth knowledge on the sustainability credentials of stone wool insulation.
- Easily navigate to the relevant construction sections to determine the most suitable ROCKWOOL solution to insulate through-wall, through-floor, or through-roof build-ups.
- Access technical resources such as free online software and calculation tools to assist with modelling building performance and regulation compliance.
- Explore ROCKWOOL's essential construction CPD programme and select the sessions that will best enhance your building regulation and specification expertise.

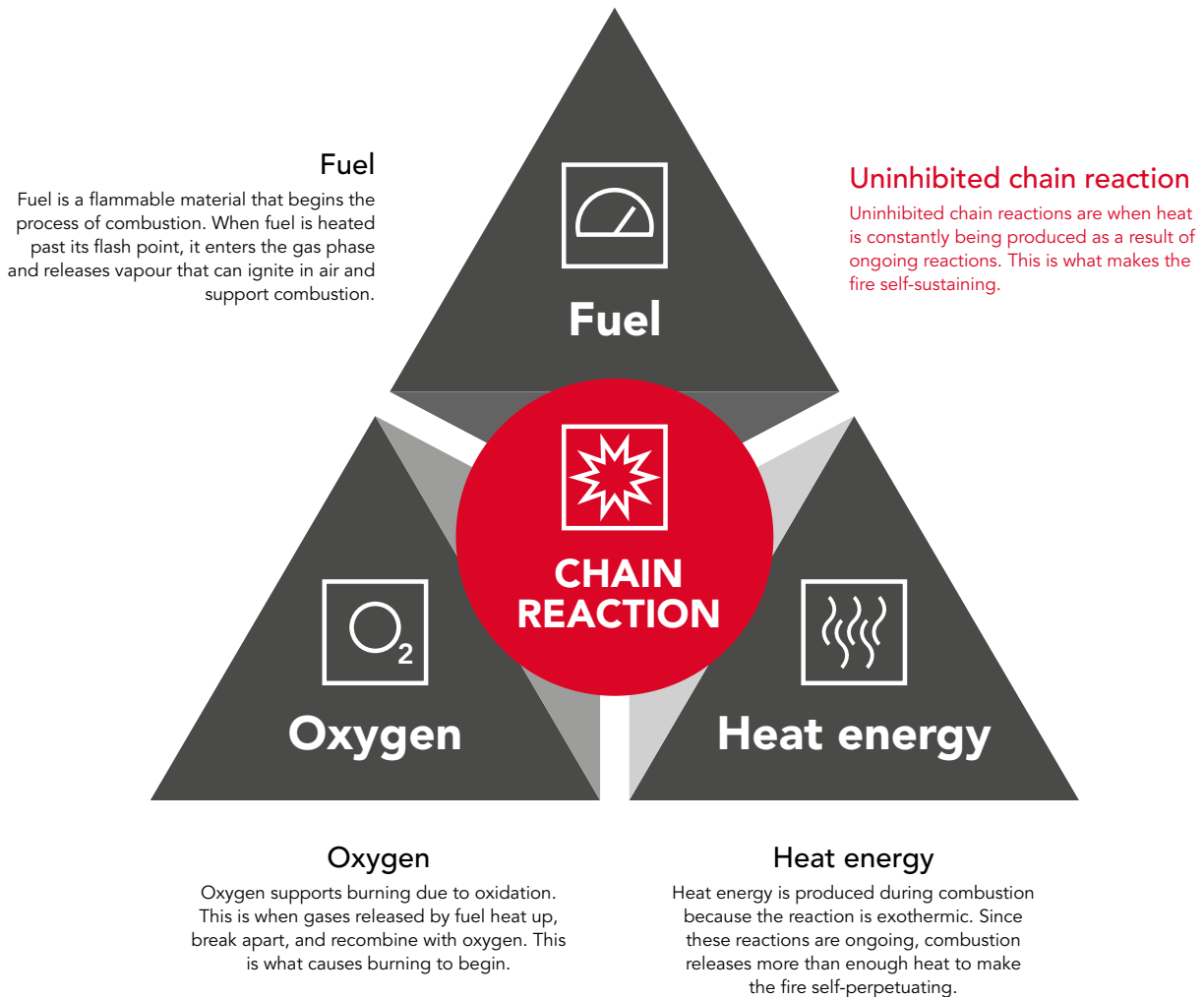


Specify ROCKWOOL stone wool insulation solutions from a single source.





Understanding fire properties



Removing one of the elements of the fire triangle will stop a fire.

Not all insulation materials react in the same way to fire and heat. A material's combustibility is determined by measuring results from a series of 'reaction-to-fire' tests which cover these key characteristics.

Only insulation materials with the lowest reaction to fire can achieve Euroclass A1 or A2-s1, d0 and will not, or will not significantly, contribute to a fire. Materials deemed as combustible have the potential to be ignited and burned – and are therefore a potential source of fuel in a fire.

When specifying building materials, careful consideration needs to be given to the potential fire risk in buildings – with particular emphasis put on compartmentation to allow safe evacuation, reduce the risk of fire spread within the building, and enable access for fire fighters.

To be able to achieve this, it's important to fully understand the difference between the two types of fire classification related to the fire properties of the insulation material being specified and the building elements it's included within.

In order to determine the most effective methods for minimising and controlling the impact of building fires, it is important to understand the differences in how building materials and their structural elements are measured for fire performance.

Fire properties of building materials and their structure are measured and classified using two important factors, **reaction to fire** and **fire resistance**.



Understanding reaction to fire

This evaluates the contribution a material can make to fire growth and development, which is particularly important in the early stages of a fire. The reaction-to-fire classification of building insulation is determined through a series of tests which measure performance against several key characteristics.



Character changes

Does the material melt, drip, or char?



Smoke emission

The level of smoke produced when burning



Heat release

Heat energy released during combustion



Flame spread

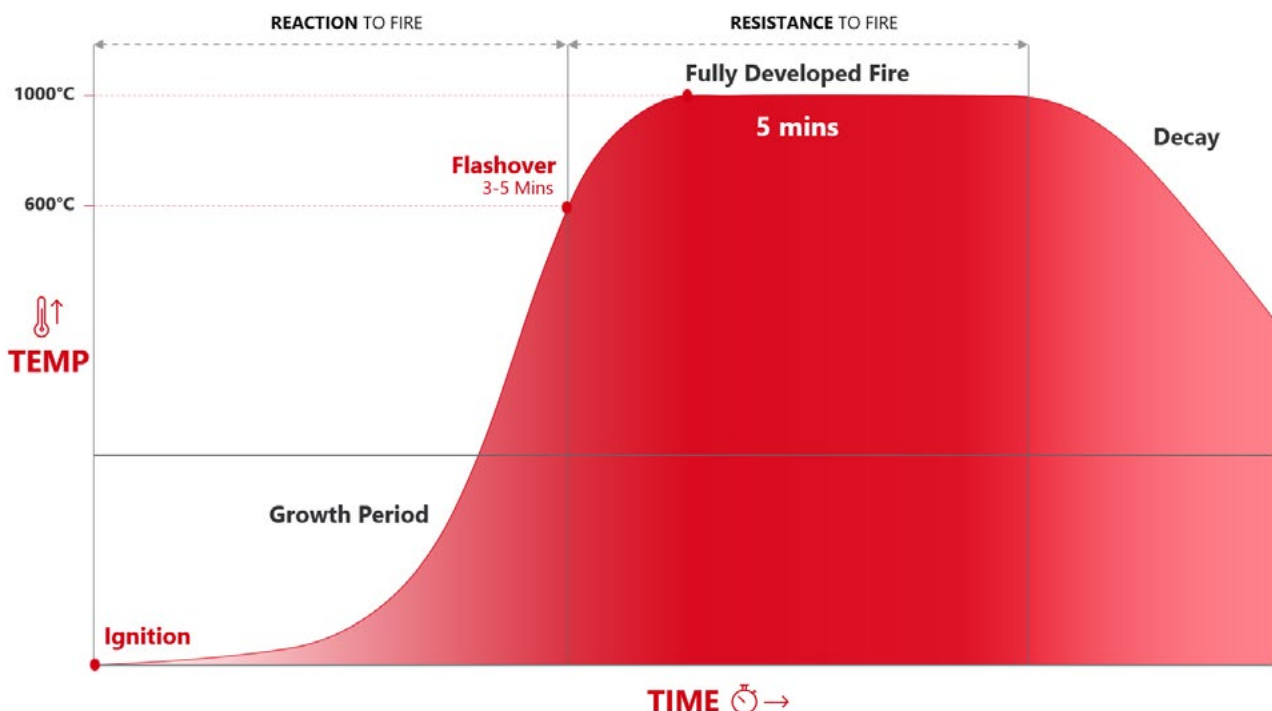
The rate at which fire spreads across a surface



Ignitability

Does the material catch fire?

Stages of fire development



The Euroclass system

The Euroclass Reaction to Fire system classifies building products in accordance with BS EN 13501-1. Using a product's Euroclass rating as guidance is the only way to determine a product's full reaction-to-fire performance. Products classified A1 or A2-s1, d0 are considered non-combustible and those classified B to F are considered combustible.

Euroclass	Combustibility
A1 A2-s1, d0	Non-combustible
B	Combustible
C	
D	
E	
F	

ROCKWOOL stone wool insulation is non-combustible, meaning it does not burn, does not contribute to fire growth, and presents no smoke hazard.

Important points to remember...

- To be sure of a product's Euroclass rating, simply check its Declaration of Performance (DoP)
- All ROCKWOOL DoPs are available online at rockwool.com/uk/dop



Essential Characteristics	Requirement clauses in this European Standard	Level and/or classes	Declared value
Reaction to fire Euroclass characteristics	4.2.6 Reaction to fire	Euroclasses	A1



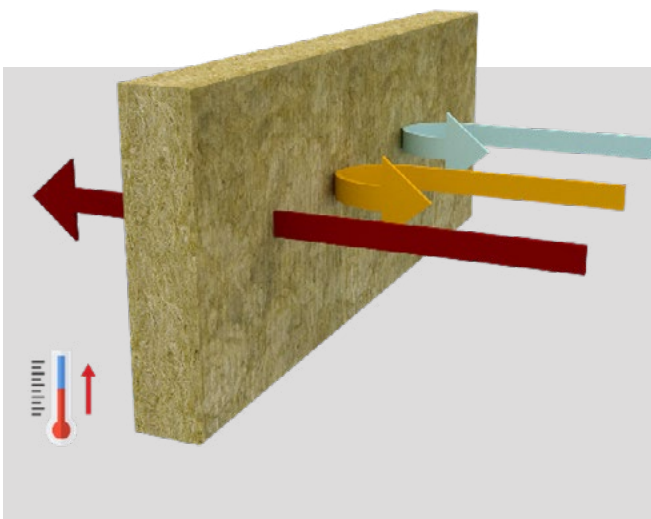
Understanding fire resistance

This measures the ability of a building structure or compartment to resist and prevent the passage of fire from one distinct area to another for a given time period.

In order to determine the level of fire resistance achieved by a product or system, it must be tested for the application it is intended for and proven to perform for the fire resistance period required.

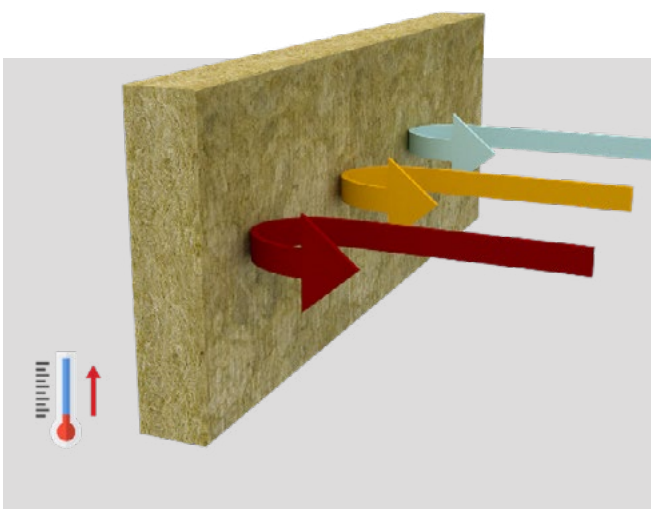
A typical fire resistance test will evaluate three key areas of performance:

In addition to measuring integrity and insulation ratings, a fire resistance test can also be used to determine the stability (R) of load bearing building elements.



Integrity (E)

The ability of a separating element of building construction, when exposed to fire on one side, to prevent the passage through it of flames and hot gases, or the occurrence of flames on the unexposed side.



Insulation (I)

The ability to maintain integrity without developing temperatures on its external surface, outside the compartment in which the fire is present, which exceed:

140°C as an average value above ambient and/or 180°C as a maximum value above ambient at any given point.

A combined approach to minimise risk

An approach to building design that increases the use of non-combustible building materials and ensures the use of appropriately tested passive fire protection measures is undoubtedly an effective method of slowing fire spread. Fully developed fires can occur within five minutes of ignition. Therefore it is vital that occupants are allowed enough time to escape safely, and firefighters are given enough time to manage the incident.

From section 3.3 of Hackitt review:
Buildings are considered as a system, which in order to be safe requires every aspect of design, construction, refurbishment and maintenance to prioritise safety.





Understanding fire regulations

There are different regulatory frameworks covering different phases of construction of a building. They are primarily concerned with life safety.

Fire safety of buildings is covered by the following:

- During Construction – The Construction (Design and Management) Regulations 2015
- Performance of materials and building work – Approved Document B
- Management during occupation and use – Regulatory Reform (Fire Safety) Order
- Materials and workmanship – Approved Document 7 2013

Approved Documents and Technical Guidance Documents offer guidance on how to comply with the Building Regulations across the UK and Ireland.

Technical guidance –
Approved Document B (fire safety)
Volume 1: Dwelling houses
Volume 2: Buildings other than dwelling houses

This practical guidance considers various aspects of fire safety in the construction of buildings:

- It requires safe means of escape from the building.
- It requires the stability of a building to be maintained in a fire, both internally and externally.
- Fire and smoke will be prevented from spreading to concealed spaces in a building's structure.
- Externally - the external walls and roof will resist spread of fire to walls and roofs of other buildings.
- The building will be easily accessible for firefighters and their equipment.

The Regulatory Reform Fire Safety Order now requires a developer or architect to hand over "sufficient" fire safety information to the building's future "responsible person", so they may commission an appropriate "Fire Risk Assessment" for the new building and its occupiers and/or users.



Scotland

The standards and guidance in the fire safety section of the **Technical Handbook (domestic)** and **Technical Handbook (non-domestic)** are designed to work together to provide a balanced approach to fire safety. The purpose of the guidance in Section 2 is to achieve the following objectives in the case of an outbreak of fire within the building:

- To protect life
- To assist the fire and rescue services
- To further the achievement of sustainable development.

Areas covered include compartmentation, structural protection, cavities, internal linings, and more.

Northern Ireland

Technical Booklet E (Fire Safety) is one of a series that has been prepared by the Department of Finance and Personnel for the purpose of providing practical guidance with respect to the technical requirements of the Building Regulations (Northern Ireland) 2012 and covers the following:

- Means of escape
- Internal fire spread (linings)
- Internal fire spread (structure)
- External fire spread
- Facilities and access for the fire and rescue service

Republic of Ireland (ROI)

The provisions set out in Sections B1 to B5 of the **Technical Guidance Document B** deal with different aspects of fire safety. The five sections are:

- Means of escape in case of fire
- Internal fire spread (linings)
- Internal fire spread (structure)
- External fire spread
- Access and facilities for the fire service

Wales

Approved Document B gives guidance for fire safety compliance with the Building Regulations for building work carried out in Wales. It has been published in two volumes. Volume 1 deals solely with dwelling houses, while Volume 2 deals with all other types of building covered by the Building Regulations.

England

Approved Document B addresses fire safety and has been split into two volumes. Volume 1 deals with dwelling houses and Volume 2 deals with buildings other than dwelling houses. It covers the following:

- Means of warning and escape
- Internal fire spread (linings)
- Internal fire spread (structure)
- External fire spread
- Access and facilities for the fire service





Understanding thermal performance

In building physics, 'thermal' refers to the properties and processes associated with the transfer of heat due to temperature differences.

When constructing buildings, the main thermal design consideration is to maximise energy efficiency and occupant comfort by effectively controlling heat transfer.

Heat transfer occurs in one of three ways:

Conduction

The passage of heat through or within a material because of direct contact.

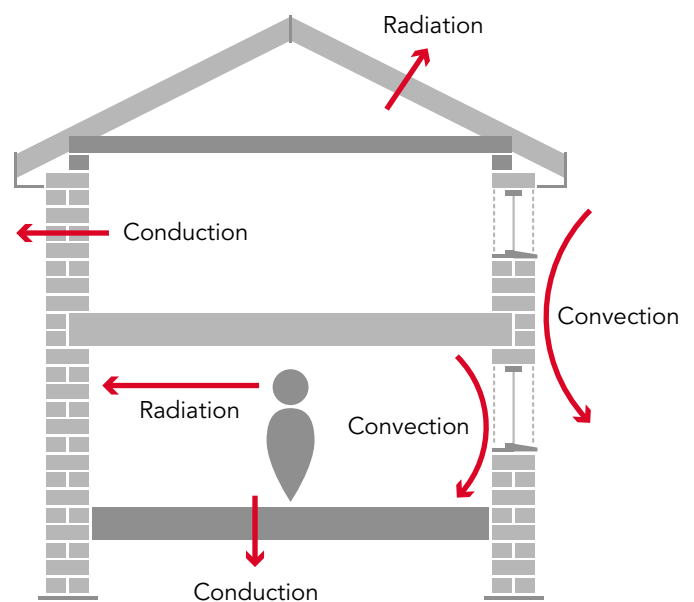
In conduction, the hottest object is the heat source, and the coolest is the heat sink. For example, heat within a house will travel from the warm side of the wall outwards to the cold side of the wall.

Convection

The transfer of heat via liquids or gases. For example, if you blow over a hot substance such as hot food, heat from the substance transfers to the air particles, cooling the hot substance and slightly warming the air. Therefore, gaps around windows or doors can reduce the internal temperature.

Radiation

Radiated heat goes out in all directions, unnoticed until it strikes an object. Radiation is a method of heat transfer that does not rely upon any contact between the heat source and the heated object, which means heat can easily be transmitted through empty space.



Measuring thermal performance

The unit of quantity of heat is the joule (J). Heat flow may be expressed as joules per second (J/s), but as a heat flow of one joule per second equals one watt, the unit watt (W) is adopted for practical purposes in calculating U-values.

The following summarises the main measurements to consider when evaluating the thermal performance of products in a building.

Properties	Unit	Expressed as	Measuring	Interpreting
Thermal transmittance	U-value	W/m ² K (Watts per square metre Kelvin)	Rate of heat loss of a building component.	The lower the U-value, the more efficient the construction.
Thermal conductivity	k or lambda value	W/mK (Watts per metre Kelvin)	Rate at which heat is transmitted through a material.	The lower the conductivity, the more thermally efficient a material is.
Thermal resistance	R value	m ² K/W (metre square Kelvin per watt)	Rate at which a material resists heat flow.	The higher the R-value, the more efficient the insulation.

Controlling thermal transfer

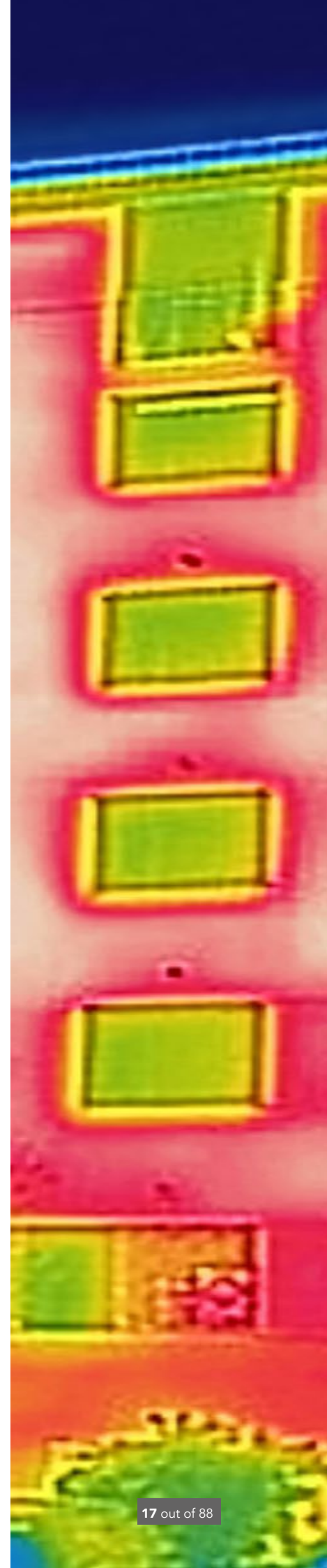
Heat always flows from warmer to cooler surfaces until the temperatures of both surfaces become equal. Insulating materials slow this transfer of heat, helping to control temperature changes within a building.

Importance of thermal performance

Insulation plays an important role in improving a building's energy efficiency by reducing unwanted heat loss in winter and heat gain in summer.

By lowering the demand for heating and cooling, insulation can contribute to reduced energy consumption and associated carbon emissions.

Building regulations continue to set increasingly stringent requirements for energy efficiency in both domestic and non-domestic properties, reflecting the importance of conserving fuel and power.





Understanding thermal regulations

Approved Document L gives guidance on how to comply with Part L of Schedule 1 to the Building Regulations, and the energy efficiency requirements for both dwellings and buildings other than dwellings. The energy performance and carbon emissions of buildings are assessed using one of two calculations, depending on the building type:

1. SAP (Standard Assessment Procedure) – Domestic
2. SBEM (Simplified Building Energy Model) – Non-domestic

Fundamentals of both are the same. They calculate energy cost and carbon emissions for the purposes of demonstrating compliance with building regulations. Each of the calculations measure four criteria:

For SAP (domestic):

- The elements of structure
- The heating and hot water system
- The internal lighting
- The renewable technologies used in the home

For SBEM (non-domestic):

- Measuring the Building Emission Rate (BER) against the Target Emission Rate (TER)
- Assessing building fabric, HVAC systems, hot water, and lighting for energy efficiency
- Demonstration of passive measures to limit solar gains during summer months
- Ensuring provisions are in place to enable energy efficient operation

Thermal regulations across England, Scotland, Wales, Northern Ireland, and the Republic of Ireland can be split into two main categories with sub-sections as described below:

Conservation of fuel and power in dwellings

- New dwellings
- Existing dwellings: extensions
- Existing dwellings: refurbishment, renovation and thermal upgrade

Conservation of fuel and power in buildings other than dwellings

- New buildings other than dwellings
- Existing buildings other than dwellings: extensions
- Existing buildings other than dwellings: refurbishment, renovation and thermal upgrade

The following tables provide a summary of the notional U-values as described within the following documents:

England:	ADL1 (2021), ADL2 (2021)
Scotland (Domestic / Non-domestic):	Technical Handbook 2019 – Section 6
Wales:	ADL1 (2022), ADL2 (2022)
Republic of Ireland:	Technical Guidance Document L
Northern Ireland (Booklet F1 / F2):	Technical Booklet F1 and F2

***Table 1a: Dwellings (new)**

Fabric element	Part L1 2021 (England)	Section 6 2022 (Scotland)	Part L1 2022 (Wales)	Technical Guidance Document L 2022 (Ireland)	Technical Booklet F1 2022 (Northern Ireland)
Wall	0.18 W/m ² K	0.15 W/m ² K	0.13 W/m ² K	0.13 W/m ² K	0.15 W/m ² K
Roof	0.11 W/m ² K	0.09 W/m ² K	0.11 W/m ² K	0.11 W/m ² K	0.13 W/m ² K
Floor	0.13 W/m ² K	0.12 W/m ² K	0.11 W/m ² K	0.14 W/m ² K	0.13 W/m ² K
Party wall	0.00 W/m ² K	0.00 W/m ² K	0.00 W/m ² K	-	0.20 W/m ² K

*U-values quoted are notional values taken from each standard for a typical dwelling specification. Refer to the individual standards for more detailed information.

***Table 1b: Dwellings (existing)**

Fabric element	Part L1 2021 (England)		Section 6 2022 (Scotland)		Part L1 2022 (Wales)		Technical Guidance Document L 2022 (Ireland)		Technical Booklet F1 2022 (Northern Ireland)	
	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	*Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)
Wall	0.18	0.55 (cavity) 0.30 (external or internal)	0.17	0.17	0.18 (houses) 0.21 (flats)	0.55 (cavity) 0.30 (external or internal)	0.18	0.55 (cavity) 0.35 (other)	0.28	0.55 (cavity) 0.30 (external or internal)
Pitched roof – ceiling	0.15	0.16	0.12	0.12	0.13	0.16	0.16	0.16	0.16	0.16
Pitched roof – rafter	0.15	0.16	0.12	0.12	0.13	0.16	0.16	0.25	0.18	0.18
Flat roof	0.15	0.16	0.12	0.12	0.13	0.16	0.20	0.25	0.18	0.18
Floor	0.18	0.25	0.15	0.15	0.15	0.25	0.18	0.45 (ground floors) 0.25 (other exposed floors)	0.22	0.25

*U-values quoted in this table are the limiting U-values for each nation.

***Table 2a: Buildings other than dwellings (new)**

Fabric element	Part L2 2021 (England)	Section 6 2022 (Scotland)	Part L2 2022 (Wales)	Technical Guidance Document L 2022 (Ireland)	Technical Booklet F2 2022 (Northern Ireland)
Wall	0.26 W/m ² K	0.21 W/m ² K	0.26 W/m ² K	0.21 W/m ² K	0.21 W/m ² K
Roof	0.16 W/m ² K (pitched) 0.18 W/m ² K (flat)	0.16 W/m ² K	0.20 W/m ² K	0.16 W/m ² K (pitched) 0.20 W/m ² K (flat)	0.16 W/m ² K (pitched) 0.20 W/m ² K (flat)
Floor	0.18 W/m ² K	0.18 W/m ² K	0.22 W/m ² K	0.21 W/m ² K	0.21 W/m ² K

*U-values quoted in this table are the limiting U-values for each nation.

***Table 2b: Non-dwellings (existing)**

Fabric element	Part L2 2021 (England)		Section 6 2022 (Scotland)		Part L2 2022 (Wales)		Technical Guidance Document L 2022 (Ireland)		Technical Booklet F2 2022 (Northern Ireland)	
	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	*Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)	Extension (W/m ² K)	Thermal upgrade (W/m ² K)
Wall	0.26	0.55 (cavity) 0.30 (external or internal)	0.21	0.21	0.21 (domestic in character) 0.26 (all other buildings)	0.55 (cavity) 0.30 (external or internal)	0.21	0.55 (cavity) 0.35 (other)	0.21	0.55 (cavity) 0.30 (external or internal)
Pitched roof – ceiling	0.16	0.16	0.16	0.16	0.15 (domestic in character) 0.15 (all other buildings)	0.16	0.16	0.16	0.16	0.16
Pitched roof – rafter	0.16	0.18	0.16	0.16	0.15 (domestic in character) 0.18 (all other buildings)	0.18	0.16	0.25	0.16	0.18
Flat roof	0.18	0.18	0.16	0.16	0.15 (domestic in character) 0.18 (all other buildings)	0.18	0.20	0.25	0.20	0.18
Floor	0.18	0.25	0.18	0.18	0.18 (domestic in character) 0.22 (all other buildings)	0.25	0.21	0.45 (ground floors) 0.25 (other exposed floors)	0.21	0.25

*U-values quoted in this table are the limiting U-values for each nation.

YOUR GUIDE TO APPROVED DOCUMENT L

The straightforward guide to Approved Document L 2021 from ROCKWOOL.

- Choose from three volumes covering England, Wales, and Scotland
- Analyse key changes to thermal regulations for new and existing buildings at a glance
- Explore real-world substrate construction examples to help meet and exceed requirements



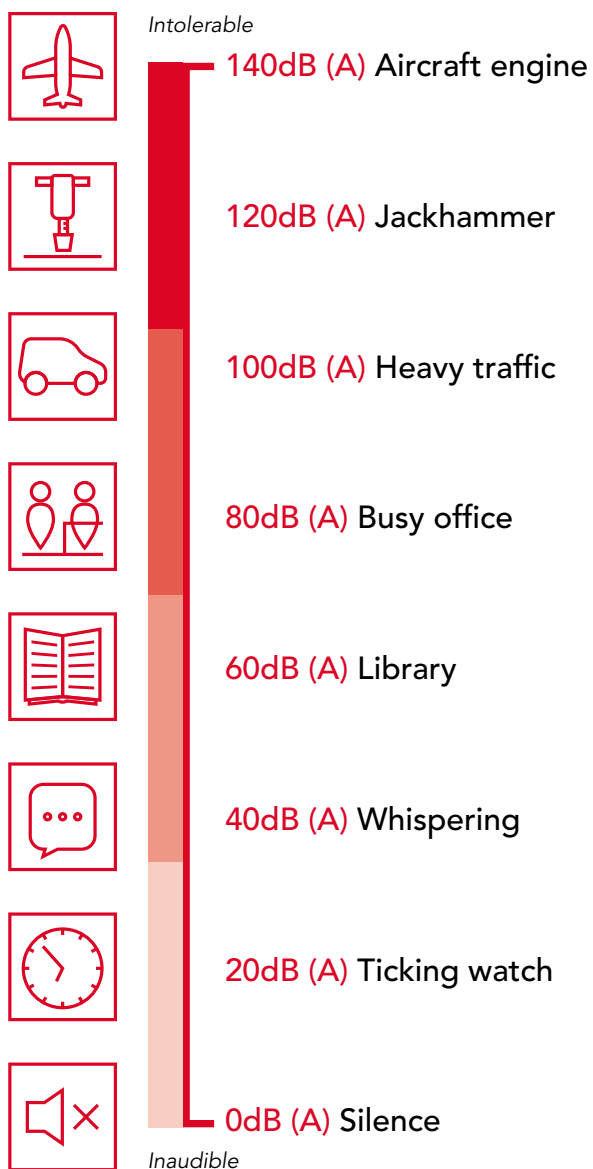


Understanding acoustics

Noise is typically defined as unwanted sound. Physically, sound is a series of vibrations carried through a medium such as air. Such sources of noise are referred to as 'airborne', e.g. sounds from a television, people talking, or a barking dog.

Measuring sound

Sound is measured in decibels (dB). The following scale depicts a range of sound levels as experienced by people.



Sources of sound or noise within a building fall into one of two categories:

Airborne

Transmitted through the air and atmosphere. Typical examples include talking, sounds from radio and television, or cars travelling down a road.

Impact

The physical impact on buildings or solid materials. Typical examples include footfall, doors banging, walking, and furniture moving.

Controlling sound

When sound cannot be managed at the source, one of the most effective ways of controlling it is to reduce its transfer. Sound reduction can take place from external sources into a building, through external walls and roofs, and between internal spaces with partitions, separating walls and floors.

The ability of walls, floors, or roofs to resist the passage of sound energy is determined by three factors:

- The sound absorbency of any cavities (airborne sound).
- The area mass (kg/m^2) of the separating element (airborne sound).
- The structural isolation of elements within the element (impact sound).

The level of sound reduction achieved between spaces is also measured in dB.

When designing and constructing buildings that are fit for purpose, regulation compliant, and comfortable to occupy, it is important to control sound levels by reducing noise transfer.

Importance of acoustics

Noise pollution is a major environmental problem that affects thousands of people living in UK towns and cities.

With an ever-increasing demand for housing and the need for space efficiency, many of today's residential units are built in close proximity to significant sources of noise. These include road traffic, railway networks, air traffic, and even other construction sites.

As we move into inner cities, our exposure and proximity to external noise sources increases significantly.

Exposure to high levels of noise can affect everyone a little differently. Noise during night time disturbs sleep and can spoil the recovery phases of the human body. There is also a link between noise and learning; the cognitive performance of both children and adults is reduced by noise. Their ability to learn is impaired in noisy environments.¹

In the UK, acoustic standards in construction are governed by Approved Document E (England and Wales), Approved Document G (Northern Ireland), Technical Guidebook Domestic Section 5 (Scotland), and Technical Guidance Document E (Ireland).

1. WHO Regional Office for Europe, Environmental Noise Guidelines for the European Region (2018)



Did you know?

Noise pollution costs the British economy around £20 billion annually in economic, social, and health costs.¹

¹ European Environment Agency, 2014.



Understanding acoustic regulations

Acoustic requirements between UK nations and the Republic of Ireland whilst similar, do vary and it is important to ensure the appropriate regulations and guidance are followed. The correct regulatory requirements can be found for each nation, in the following guidance documents:

- [England & Wales – Approved Document E](#)
- [Northern Ireland – Approved Document G](#)
- [Scotland – Technical Handbook – Domestic: Section 5 \(Domestic / Non-domestic\)](#)
- [Republic of Ireland – Technical Guidance Document E](#)

While notional values may differ, the fundamental requirements can be divided into two core areas:

- **Separating constructions** – Protection against sound from other parts of the building and/or adjoining buildings.
- **Single dwellings** – Protection within a single dwelling, e.g. house or flat, whether purpose-built or formed by material change of use.

The requirements for each construction will be met by achieving the sound insulation values set out in Table 1 and/or Table 2. It is important to note that to demonstrate compliance for separating constructions (Table 1), on-site pre-completion testing is required. Pre-completion on-site testing is not required for constructions within single dwellings (Table 2).

Performance requirements are now more stringent due to the addition of a low frequency correction factor (Ctr) which must be applied to the pre-completion measure of airborne sound. The new values will therefore be more difficult to achieve for many types of construction.

Please note that the associated flanking constructions should be followed, and that the person carrying out the building work should arrange for sound insulation testing to be carried out by a test body with appropriate third-party accreditation.

Table 1 – Separating construction

Protection against sound from other parts of a building and/or adjoining buildings.

	Approved Document E (England & Wales) / G (Northern Ireland)			
	Airborne $D_{nT,W} + C_{tr}$ dB (minimum values)		Impact $L'_{nT,w}$ dB (maximum values)	
	New build	Change of use	New build	Change of use
Walls	45 (*43)	45	-	-
Floors and stairs	45	43	62	64
Technical Handbook Domestic Section 5 (Scotland)				
Walls	**56	***53	-	-
Floors and stairs	**56	***53	**56	**58
Technical Guidance Document E (Ireland)				
Walls	53	53	-	-
Floors and stairs	53	53	53	58

*Lower limit applies only to "rooms for residential purposes" **Applies to new builds and conversions of non-traditional buildings ***Applies to conversions of traditional buildings

Table 2 – Single dwelling

Houses, flats and rooms for residential purposes, whether purpose-built or formed by material change of use.

	Airborne sound insulation R_w dB (maximum values)		
	Approved Document E (England & Wales) / G (Northern Ireland)	Technical Handbook Domestic Section 5 (Scotland)	Technical Guidance Document E (Ireland)
Walls	40	40	See Table 1 – Separating constructions
Floors and stairs	40	43	

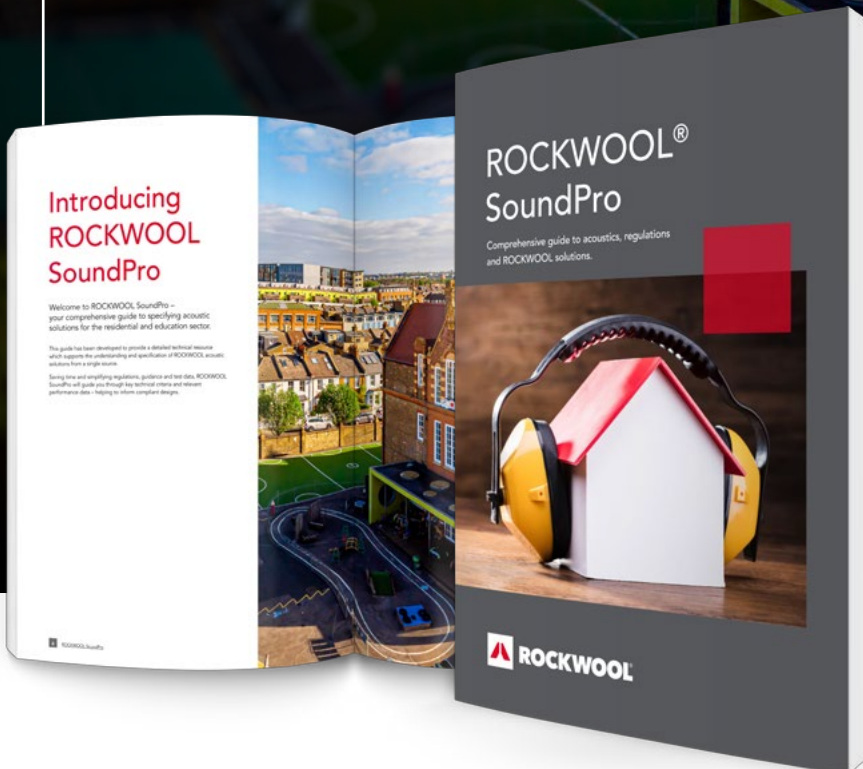
Build acoustic insulation into design

Introducing ROCKWOOL SoundPro

ROCKWOOL SoundPro is a guide that supports specifiers in designing acoustic insulation into education and residential buildings.

Use it to:

- Understand the importance of good acoustic design
- Learn how to enhance the acoustic capabilities of building projects
- Summarise acoustic regulations for England, Wales, Scotland, and Ireland
- Specify the latest ROCKWOOL solutions that provide acoustic benefits



Download now:



rockwool.com/uk/soundpro



ROCKWOOL – built upon responsible business principles

Sustainability is integral to our business strategy. We pursue a fact-based, auditable approach backed up by third-party references and methodologies to document progress in maximising our products' positive impact and minimising the impact of our operations.

Our approach is based on three principles:

Using less energy and materials:

We do this through the circularity of our products and the significant reduction in energy and resources our products achieve in their lifetime.

We continually improve the energy efficiency of our own operations.

Greening the rest:

By saving energy in buildings and our own operations, and transitioning to renewable energy sources.

Addressing climate hazards:

By thinking ahead and maximising the performance of existing products and innovating new ones, we are addressing many climate-related hazards, such as fires, flooding, asset risks, and fossil fuel dependency. We are also reducing our own fossil fuel dependency with an ambitious decarbonisation strategy.

Creating sustainable operations

We are making good progress toward achieving our decarbonisation goals. In fact, since setting the SBTi validated and verified goals in 2020, we have achieved almost half of our Scope 1 and 2 absolute emission reduction targets. And we are ahead of schedule on reaching our target to reduce emissions per tonne of stone wool produced.

Electrification of our factories - more specifically, the melting process - is the lever we can pull to achieve the biggest impact. And that's why we continue investing significant amounts into converting existing and building new factories to incorporate advanced electric melting technologies.

In 2024, ROCKWOOL invested 262 MEUR in electrification, factory upgrades (including digital investments), abatement technologies to reduce GHG emissions as well as converting and optimising production lines and preparing new ones.

Visit rockwool.com/uk/sustainability
to read the ROCKWOOL Sustainability Report

Supporting sustainable construction

We transform abundant, natural volcanic rock into stone wool insulation products that help our customers and communities tackle energy consumption, noise pollution, fire resilience, and climate change challenges such as water scarcity and flooding. Other sustainability and circularity considerations at ROCKWOOL include:

Environmental Product Declarations (EPDs)

ROCKWOOL advocates for the use of Environmental Product Declarations (EPDs), which are based on the principle of life cycle assessment. EPDs cover the manufacturing process as well as upstream impacts including the extraction and transport of the raw materials, and the downstream impacts such as product transport, maintenance, and disposal options at end-of-life.

An EPD provides a range of indicators such as global warming potential or resource depletion, which can be used as inputs to design tools to achieve a required sustainability performance for a building.

Sustainable and recyclable

More than 75% of the stone we use is volcanic rock, including basalt and gabbro. For perspective on how much we use, our total annual volcanic stone consumption is less than one percent of what is made every year by the Kilauea volcano in Hawaii. Although this stone is plentiful, it's still important to minimise the use of natural resources.

Since ROCKWOOL 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.

Circularity in construction

Circularity is at the core of our sustainability strategy because of stone wool's inherent traits. Two of the most important traits are its recyclability and durability.

ROCKWOOL has incorporated circularity principles in its business model with products that are durable, easily disassembled, recyclable, and which contain recycled material.

In 2023, ROCKWOOL introduced a circularity dashboard that supports our efforts towards greater circularity and especially maximising the use of non-virgin materials wherever possible. The dashboard provides transparency around inflows, outflows, and end-of-life options for our products.

The circularity aspects of our stone wool products





Build to last

Insulation can play a major role in improving the energy efficiency of buildings, which means the longer a material can maintain its performance, the better it is for the environment.

While Life Cycle Assessments of buildings can assist specifiers in evaluating how construction products will perform over time, independent testing provides an additional route for verification – and more importantly, access to reliable performance data.

For stone wool insulation, independent testing was undertaken by Eurima – the European Insulation Manufacturers Association. To demonstrate the durability of mineral wool insulation, Eurima initiated a project with FIW, a third-party laboratory, which followed a strict sampling procedure and testing method.

Scoping out stone wool performance

Focusing on insulation installed in walls and roofs, which included ROCKWOOL stone wool materials, the Eurima research examined:

- Existing buildings, unaffected by structural damage, aged 20 to 55 years
- Insulation materials extracted from buildings by an independent third-party laboratory
- Usability of the aged materials, and consequently their durability

Results were compared with the original aged product specification sheets, valid at the time they were produced.

Tests were carried out with densities ranging from 30-150kg/m³ and against the following standards:

Walls:

- Thickness (to EN 823)
- Density (to EN 1602)
- Moisture content (to EN ISO 12570)
- Thermal conductivity (to EN 12667)
- Compressive strength (to EN 826)
- Water absorption (to EN 12087 and/or EN 1609)

Roofs:

- Thickness (to EN 823)
- Density (to EN 1602)
- Moisture content (to EN ISO 12570)
- Thermal conductivity (to EN 12667)
- Compressive strength (to EN 826)
- Tensile strength (to EN 1607)
- Point load behaviour (to EN 12430)
- Water absorption (to EN 12087 and/or EN 1609)

At least 50 years' durability – determined by research

Tests of ROCKWOOL stone wool recovered from old buildings have shown that our stone wool retains its performance characteristics – thermal, mechanical, fire resistance – for at least 50 years, and probably longer. A test of a 65-year-old stone wool sample found in 2023 during a renovation of Copenhagen airport^[1] showed that these characteristics had not diminished after 65 years.

^[1] Testing done at Danish Technical Institute (DTI) in 2023, "Testing ROCKWOOL insulation from CPH airport hangar 4".

Combining laboratory research and real-world design

The long-term performance of stone wool insulation is evidenced by the Eurima study, but how does this translate into modern building design, and how do the findings align with current standards?

Declaration of Performance

Durability characteristics as covered by section 4.2.7 of the relevant harmonised (hEN) product standard* state that the thermal resistance, thermal conductivity, and reaction to fire performance "do not change with time".

This means that there is no requirement to make a declaration of aged performance on these parameters. However, the Eurima report provides evidence of performance over time, should it be needed.

*BS EN 13162:2012+A1:2015

Service life

For over 80 years, ROCKWOOL has been producing stone wool insulation for the construction industry, which means our products are installed in buildings that were constructed almost eight decades ago.

The suggested service life of insulation, as detailed in Annex D of BS 7543, is 60 years. However, the Eurima report now provides valuable real data which demonstrates that stone wool insulation maintains performance with no degradation, even after 50 years or more.

Fitness of materials

In Regulation 7 of the Building Regulations, Section 1: Materials references several ways to establish the fitness of materials. These include CE Marking, the Construction Products Regulations, independent certifications, schemes, tests, calculations and past experience. Carried out by an independent EU notified body, the Eurima research provides verified evidence that stone wool insulation performs in the long term.

Did you know?

During renovations to Copenhagen Airport, ROCKWOOL stone wool was found to still be performing 65 years after initial installation*.

*Testing conducted at the Danish Technological Institute in 2023, using ROCKWOOL products taken from an external wall system.



New and improved Fire-stopping Standard Details Guide

When it comes to fire safety, there's no room for compromise.

Our new guide makes it easier for you to select and install ROCKWOOL fire-stopping solutions that have been tested and classified to the latest EN fire resistance standards and backed up by third-party certification. Now featuring:

- New standard details covering the latest products and applications
- A streamlined, user-friendly layout for quicker access to key information
- Interactive navigation with intuitive buttons and links to UL-EU classification reports
- Rich text and a searchable index to help you find what you need faster

Design, specify, and install, with confidence.



Scan to
learn more



[rockwool.com/uk/
next-gen-firepro](https://rockwool.com/uk/next-gen-firepro)

Introducing next-generation FirePro[®], ROCKWOOL's new range of fire-stopping products.

Tested and classified to the latest relevant EN fire resistance standards, holding third party certification under the UL-EU Mark, our new FirePro range supports ongoing innovation and the pursuit of industry leading performance and sustainability.

Make the switch to next-generation FirePro.



Sealant from the new ROCKWOOL FirePro® fire-stopping range, manufactured at Hams Hall, Birmingham

ROCKWOOL® strengthens commitment to leadership in fire safety with new product range

Construction product manufacturer ROCKWOOL has announced the first products to launch from its new global centre of excellence for fire-stopping at Hams Hall, Birmingham.

Renowned for its Euroclass A1 non-combustible stone wool insulation, the company has used its deep fire expertise and state-of-the-art manufacturing facility to develop a new in-house fire-stopping range including coated batt, sealants, collars and wraps.

Industry-leading standards

In line with the company's commitment to industry-leading practice, the new FirePro® range has been tested and classified to the most recent fire resistance standards (including BS EN 1366-4, BS EN 1366-3 and BS EN 13501-2) that will become mandatory in 2029, ensuring the range is ready a full four years early and helping customers to get ahead and future-proof their specifications. For added assurance, FirePro's testing has also been third party audited and certified for safety, reliability, and regulatory compliance by independent certification body UL-Solutions.

"At ROCKWOOL, we don't just meet fire safety standards – we help drive best practice. That means advocating for tough, easy-to-apply regulations and approaches that reflect the real risks facing modern buildings," explains Ben Peach, Product and Technical Solutions Director at ROCKWOOL Ltd.

"We're always looking ahead and helping our customers to navigate change, which is why we've tested and classified the new FirePro range to the

latest fire resistance standards – so our customers can specify with confidence."

By developing the range in-house and managing the product line from conception to delivery, ROCKWOOL is also perfectly positioned to pursue ongoing innovation and drive industry-leading performance and sustainability.

Specialist support for customers

The first products in the new FirePro range will be available to order from 2nd October 2025, with the company's specialist fire and specification teams on hand to assist customers with bespoke technical and project support.

"Customers need access to expert resources to specify with confidence," says ROCKWOOL Ltd's Head of Fire Protection & HVAC, Matt Jones.

"That's why we've launched the FirePro range with our specialist teams on hand as well as a robust package of technical literature. This includes a new interactive Fire-stopping Standard Details Guide that provides easy access to safety-critical standard

details to support specification and installation."

New Training Academy coming soon

To further support industry partners as they adapt to changes driven by the Building Safety Act, ROCKWOOL plans to open a specialist training academy at the Hams Hall site this winter.

Providing clients with the opportunity to experience product demonstrations and learn best practice installation techniques for ROCKWOOL's fire-stopping, HVAC and fire protection products, the company expects to welcome a range of visitors from installation contractors and specifiers, to fire service personnel who are working to assess and safeguard public safety.

The academy will complement ROCKWOOL's existing e-Learning platform and furthers the company's work to support skills and competence in the built environment. More details will be available shortly to those seeking to book a training session at the new Midlands facility.

Full details of the new FirePro® range and the suite of specification support available, including the updated Fire-stopping Standard Details Guide, are available at rockwool.com/uk/next-gen-firepro

Technical tools and resources

To assist you in the best possible way, we offer a range of free tools ranging from online software for calculating energy and heat loss to a materials calculator and much more.

Whether you are still at the beginning of your project or need technical support throughout, we are here to help along the way.

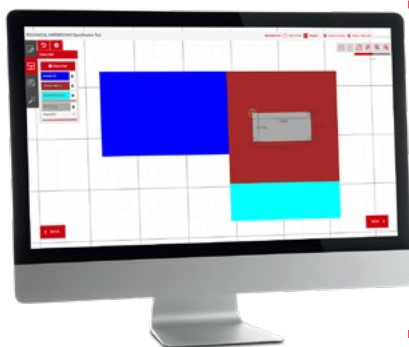


Fire-stopping Standard Details Guide [\[>\]](#)

The ROCKWOOL Fire-stopping Standard Details Guide provides in-depth guidance on the performance parameters of our passive fire-stopping product solutions, according to tested installations and applications.

U-Value Calculator [\[>\]](#)

Our U-value calculation tool allows you to quickly and easily calculate the thermal performance of walls, floors, and roofs, with around 2,500 predetermined calculations all completed under the BBA/TIMSA U-value competency scheme. It also helps you to specify the correct product and thickness to meet your customers' requirements.

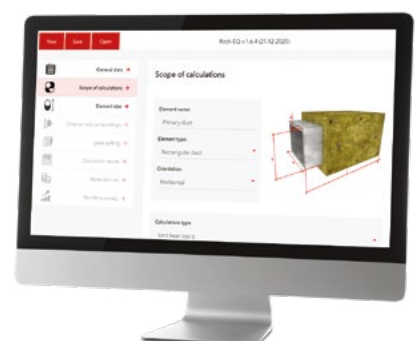


Flat Roof Zoning Tool [\[>\]](#)

The ROCKWOOL Zoning Tool has been developed to ensure the efficient use of insulation products across a flat roof. Simply draw the roof borders, then zone the roof into different areas, depending on the application.

Rock-EQ Calculator [\[>\]](#)

Specifying the insulation for your HVAC systems is now easier thanks to the ROCKWOOL HVAC Calculation Tool.



For product and technical support, please email technical.solutions@rockwool.com or call 01656 868 490



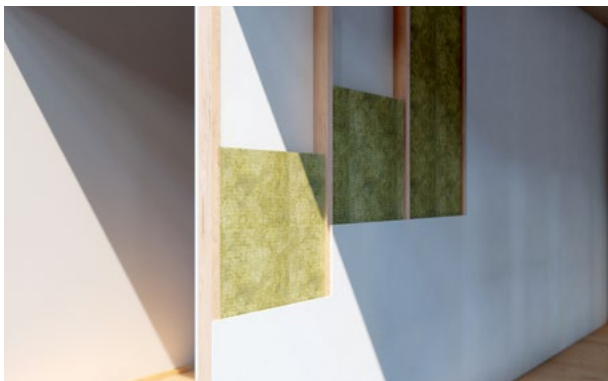
Visit rockwool.com/UK/tools
for more information

Solutions for a wide range of applications

ROCKWOOL stone wool insulation delivers proven acoustic, fire, and thermal performance for a wide range of internal and external building applications.

When correctly specified and installed, ROCKWOOL insulation can help support compliance with relevant building regulations.

To learn more about the specific solutions for each application area, navigate to the relevant sections.



Internal wall and floor solutions [[>](#)]

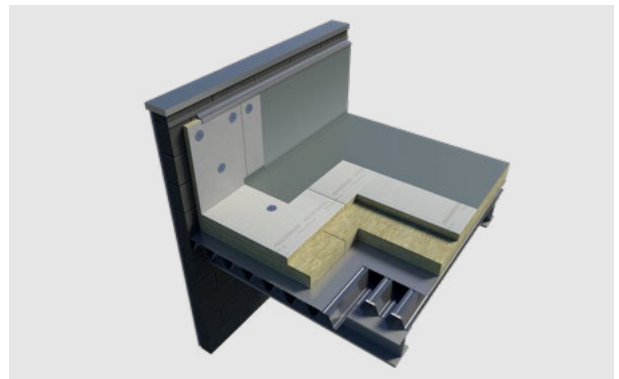


Facade and external wall solutions [[>](#)]





Pitched roof solutions [>]



Flat roof solutions [>]



Separating floor solutions [>]



Ground floor solutions [>]

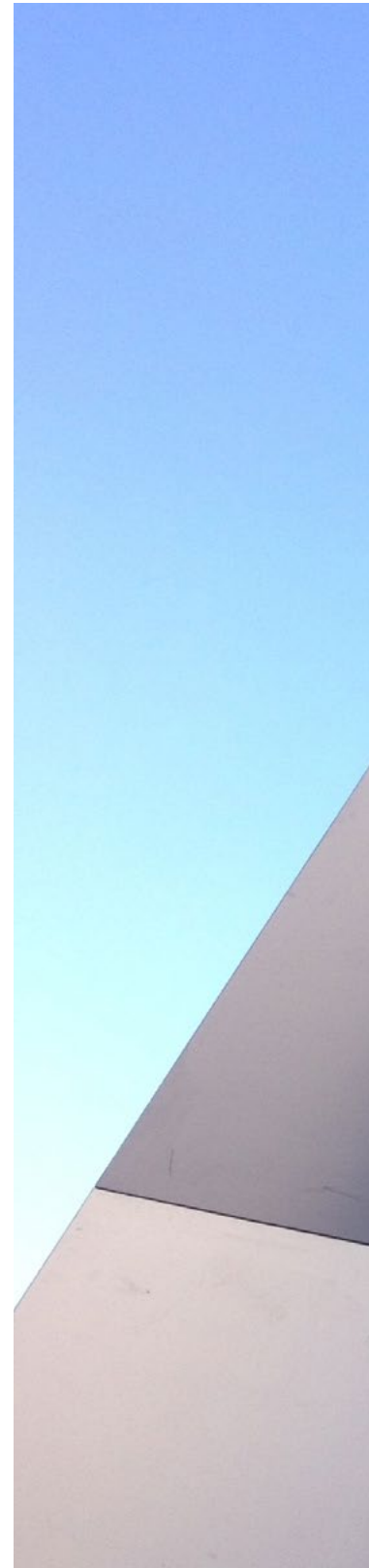
Facade and external wall solutions

ROCKWOOL façade and external wall solutions provide acoustic, fire, and thermal properties suitable for a wide range of internal and external applications.

ROCKWOOL stone wool insulation is non-combustible and resilient to heat, capable of withstanding temperatures in excess of 1000°C. When correctly specified and installed in through-wall and façade build-ups, it can help achieve compliance with relevant building regulations for external walls.

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.

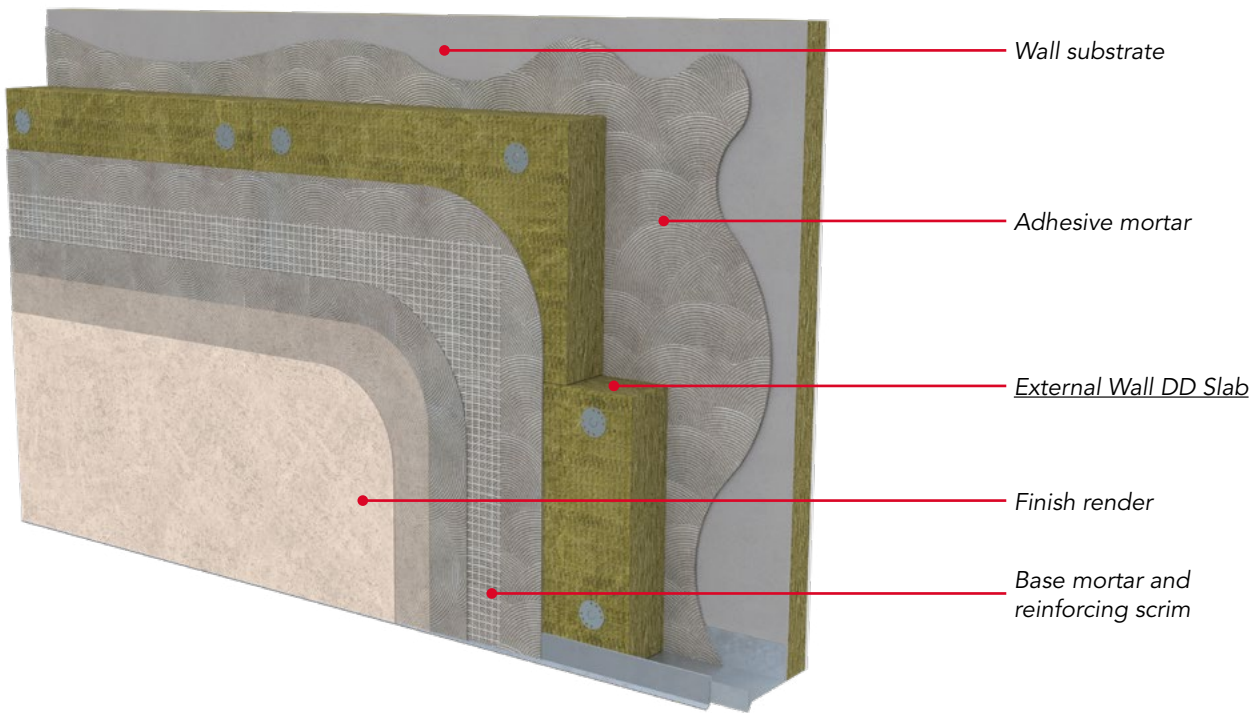
ROCKWOOL façade and external wall solutions are designed to simplify installation, supporting efficiency and helping reduce the risk of installation errors.





ETICS

ROCKWOOL EWI Slab



Exterior thermal insulation for use in ETICS external wall systems.

ROCKWOOL External Wall DD (Dual Density) Slab is a stone wool insulation specifically designed for use in external wall insulation systems. Made with ROCKWOOL dual-density technology, the upper layer has a distinctly higher density which provides an outer surface for applying render.



- External Wall DD Slab is Euroclass A1 non-combustible



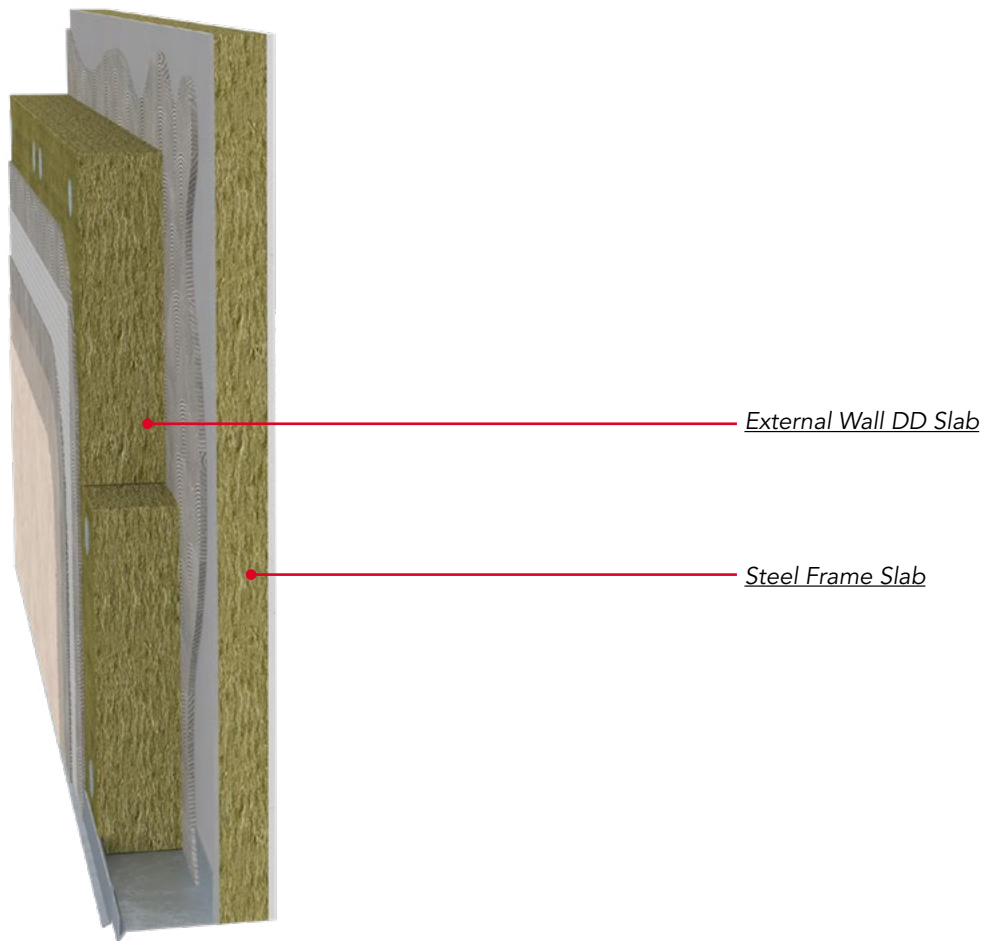
- Testing demonstrated an improvement to the weighted sound reduction, R_w , of up to 8dB (substrate dependent)



U-value (W/m ² K)	External Wall DD Slab (mm)	
	Steel frame ¹	215mm block ²
0.25	70	130
0.23	80	140
0.20	100	170
0.18	120	190
0.16	140	210
0.15	160	220
0.14	170	240

¹ 12mm cement particle board, 100mm steel frame filled with 100mm Steel Frame Slab, 2 x 12.5mm plasterboard.

² 215mm dense concrete block, 13mm plaster



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
External Wall DD Slab	✓	Euroclass A1	-	-

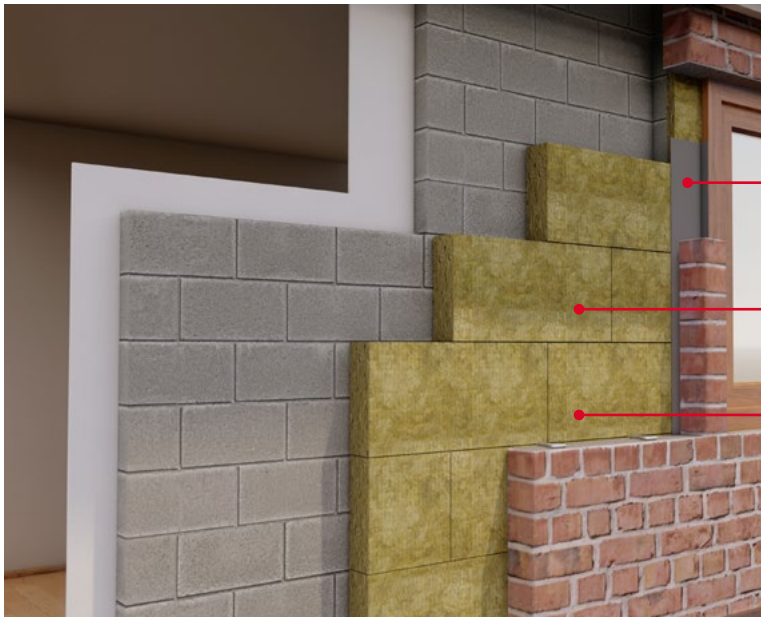
Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>External Wall DD Slab</u>	M21	1200	600	50-250

*Thickness options may be subject to a minimum production volume.
 For further information on our standard thickness range, please visit rockwool.com/uk

Masonry cavity walls

Full fill



RockClose EN

Full Fill Cavity Batt

NyRock Cavity 032

ROCKWOOL offers water repellent stone wool cavity batts to fully fill masonry cavity walls.

The batts provide a tight fit against brick and blockwork. The non-combustible full-fill batts also prevent the spread of fire within a cavity, removing the need for separate cavity barriers. The batts are durable so do not slump or sag over time, providing lasting thermal performance.



- Full Fill Cavity and NyRock Cavity 032 achieves Euroclass A1 fire resistance
- Full Fill Cavity Batt and NyRock Cavity 032 acts as a cavity barrier within a masonry cavity wall
- RockClose EN has been tested in accordance with BS EN 1366-4: 2021 and can achieve EI60 when used in masonry cavity walls



- Non-directional stone wool fibres absorb soundwaves and dampen vibration
- Full Fill Cavity Batt and NyRock Cavity 032 can help support compliance with Part E of the building regulations when used in separating masonry cavity walls



- Full Fill Cavity Batt and NyRock Cavity 032 have been certified by the BBA as a full fill cavity insulation within masonry walls



Inner block		Dense (1.13 W/mK)		Medium dense (0.47 W/mK)		Aircrete standard (0.15 W/mK)	
Full Fill Cavity Batt thickness (mm)	NyRock Cavity 032 thickness (mm)	U-value (W/m²K)		U-value (W/m²K)		U-value (W/m²K)	
		Full Fill Cavity Batt	NyRock Cavity 032	Full Fill Cavity Batt	NyRock Cavity 032	Full Fill Cavity Batt	NyRock Cavity 032
115	100	0.27	0.27	0.26	0.26	0.24	0.24
130	125	0.24	0.22	0.24	0.22	0.22	0.20
150	150	0.22	0.19	0.21	0.19	0.20	0.18
200	200	0.17	0.15	0.16	0.14	0.16	0.14

U-values based on 102mm facing brick and an internal finish of plasterboard on dabs

RockClose EN minimises thermal bridging around door and window reveals, and exceeds the minimum thermal resistance of a closer of not less than 0.45 W/mK.

RockClose EN

Cavity closer



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
*Full Fill Cavity Batt	✓	Euroclass A1	-	BBA Approved (certificate 94/3079)
NyRock Cavity 032	✓	Euroclass A1	-	BBA Approved (certificate 22/6252)
**RockClose EN	-	-	EI 60	-

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings

**Meets the criteria of Approved Document L, Section 3 – Thermal bridges

Product specification

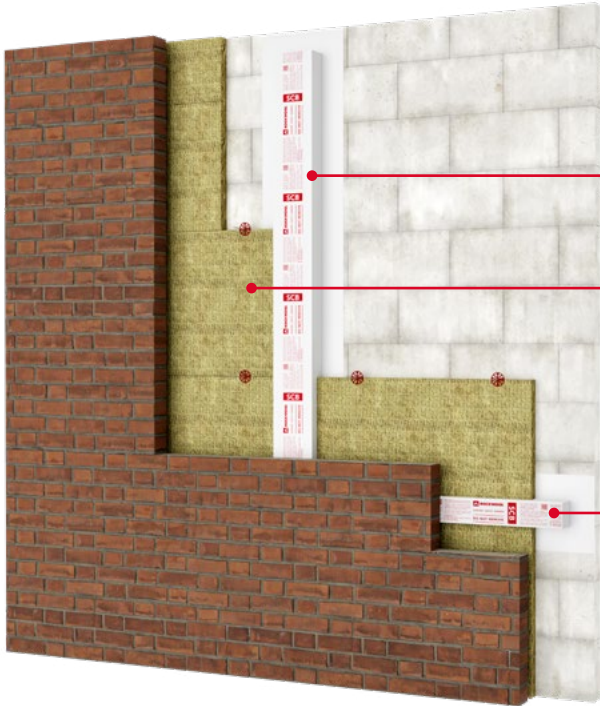
Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>Full Fill Cavity Batt</u>	F30-130	1200	455	50-250
<u>NyRock Cavity 032</u>	F30-180	1200	455	100-200
<u>RockClose EN</u>	F30-180	1200	100	20-100

*Thickness options may be subject to a minimum production volume.

For further information on our standard thickness range, please visit rockwool.com/uk

Masonry cavity walls

Partial fill



SCB (Sleeved Cavity Barrier)

NyRock Cavity 032

SCB

For masonry cavity walls, ROCKWOOL offers a durable semi-rigid partial fill insulation solution.

ROCKWOOL also offers cavity barriers to prevent the spread of fire between party walls and separating floors, and cavity closers to prevent thermal bridging and the spread of fire through door and window reveals.



- NyRock Cavity 032 is Euroclass A1 non-combustible
- SCB provides up to 120 minutes' integrity and 45 minutes' insulation subject to the application
- RockClose EN has been tested in accordance with BS EN 1366-4: 2021 and can achieve EI60 when used in masonry cavity walls



- Non-directional stone wool fibres absorb soundwaves and dampen vibration
- SCB can assist in reducing flanking noise along concealed cavities



- NyRock Cavity 032 has been certified by the BBA as a partial fill cavity insulation within masonry walls

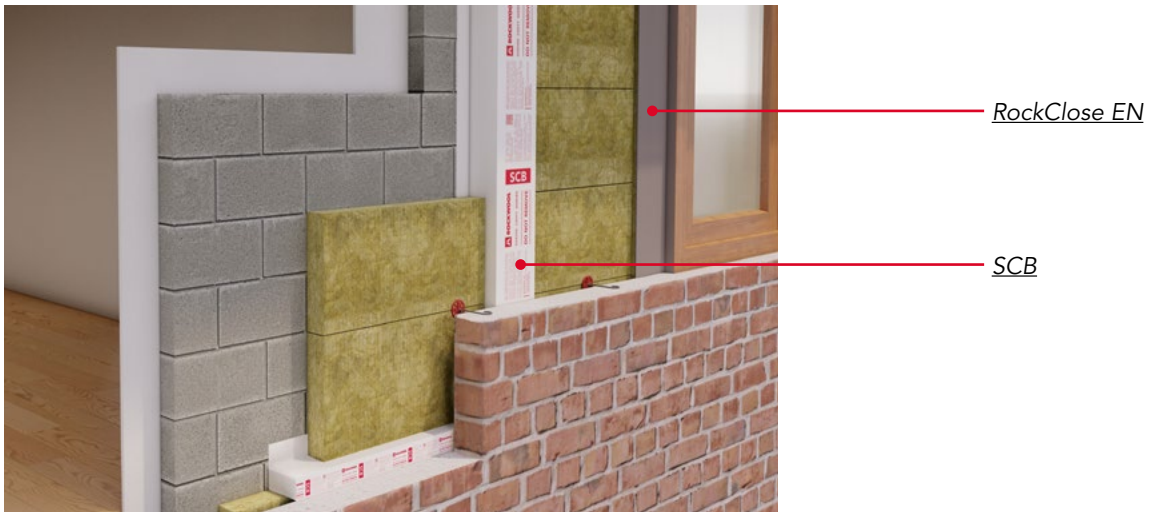


Inner block	Dense (1.13 W/mK)	Medium dense (0.47 W/mK)	Aircrete standard (0.15 W/mK)
	U-value (W/m ² K)	U-value (W/m ² K)	U-value (W/m ² K)
NyRock Cavity 032 Thickness (mm)	NyRock Cavity 032	NyRock Cavity 032	NyRock Cavity 032
100	0.26	0.25	0.23
125	0.21	0.21	0.20
150	0.18	0.18	0.17
200	0.14	0.14	0.13

U-values based on 102mm facing brick and an internal finish of plasterboard on dabs.

RockClose EN minimises thermal bridging around door and window reveals, and exceeds the minimum thermal resistance of a closer of not less than 0.45 W/mK.

RockClose EN and cavity closer – SCB



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance (Subject to the application)	3rd party certification
NyRock Cavity 032	✓	Euroclass A1	-	BBA Approved (certificate 22/6252)
SCB**,**	-	-	Integrity: 120mins Insulation: 45mins	-
RockClose EN**	-	-	EI 60	-

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings

**Meets the criteria of Approved Document L, Section 3 – Thermal bridges

*** Meets the criteria of Approved Document B, Section 5 – Internal fire spread

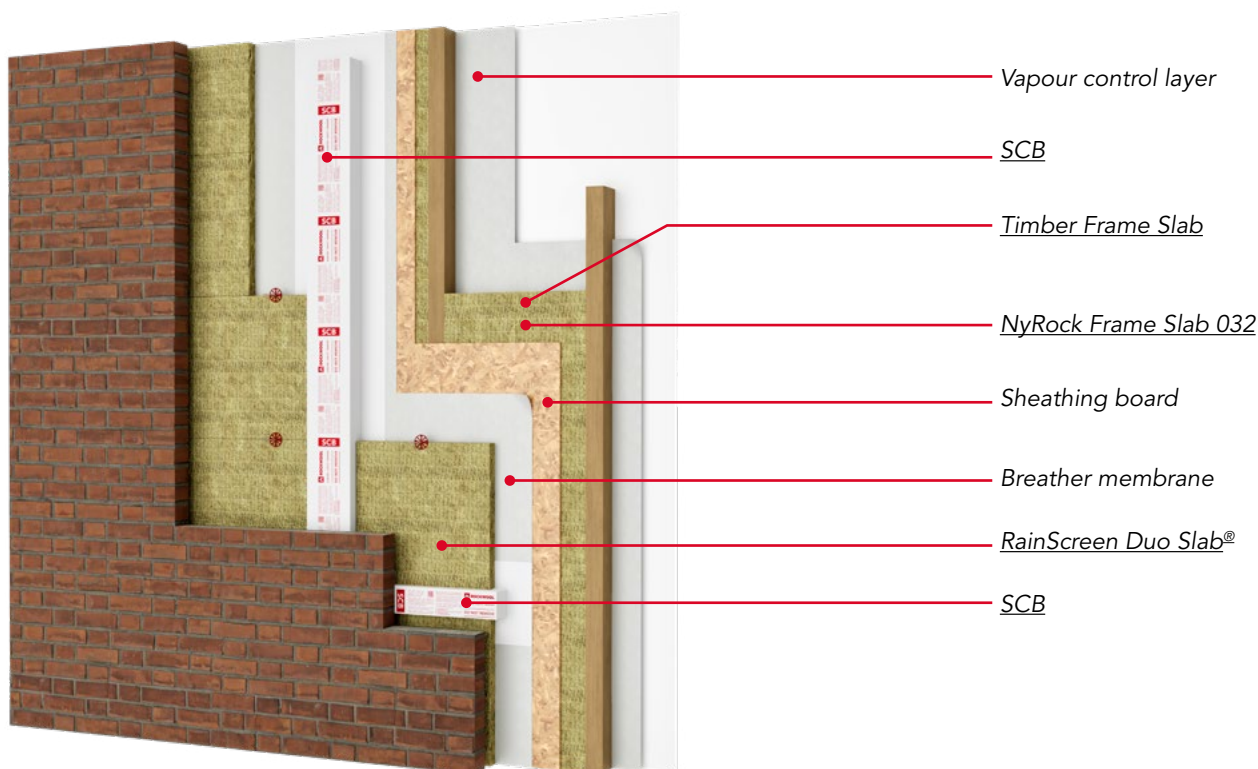
Product specification

Product	NBS clauses	Length (mm)	Width (mm)	Approved thickness range (mm)*
<u>NyRock Cavity 032</u>	F30-155	1200	455	50-200
<u>SCB</u>	F30-180, K10-530, P10-420	1200	110 or 200	60-300
<u>RockClose EN</u>	F30-180	1200	100	20-100

*Thickness options may be subject to a minimum production volume.

For further information on our standard thickness range, please visit rockwool.com/uk

Timber frame walls



For timber frame constructions, ROCKWOOL supplies a range of products with proven thermal, fire, and acoustic performance.

Manufactured with NyRock technology, NyRock Frame Slab 032 delivers a low thermal conductivity, Euroclass A1 reaction to fire and sound reduction. When paired with NyRock Rainscreen 032 sheathing insulation layer, U-values that support compliance with building regulations can be achieved when correctly specified and installed. ROCKWOOL SCB completes the solution, preventing the spread of fire within the open cavity space.



- Timber Frame Slab, NyRock Frame Slab 032, RainScreen Duo Slab and NyRock Rainscreen 032 achieve Euroclass A1 reaction to fire
- SCB provides up to 120 minutes' integrity and 45 minutes' insulation subject to the application



- Non-directional stone wool fibres absorb soundwaves and dampen vibration
- SCB can assist in reducing flanking noise along concealed cavities



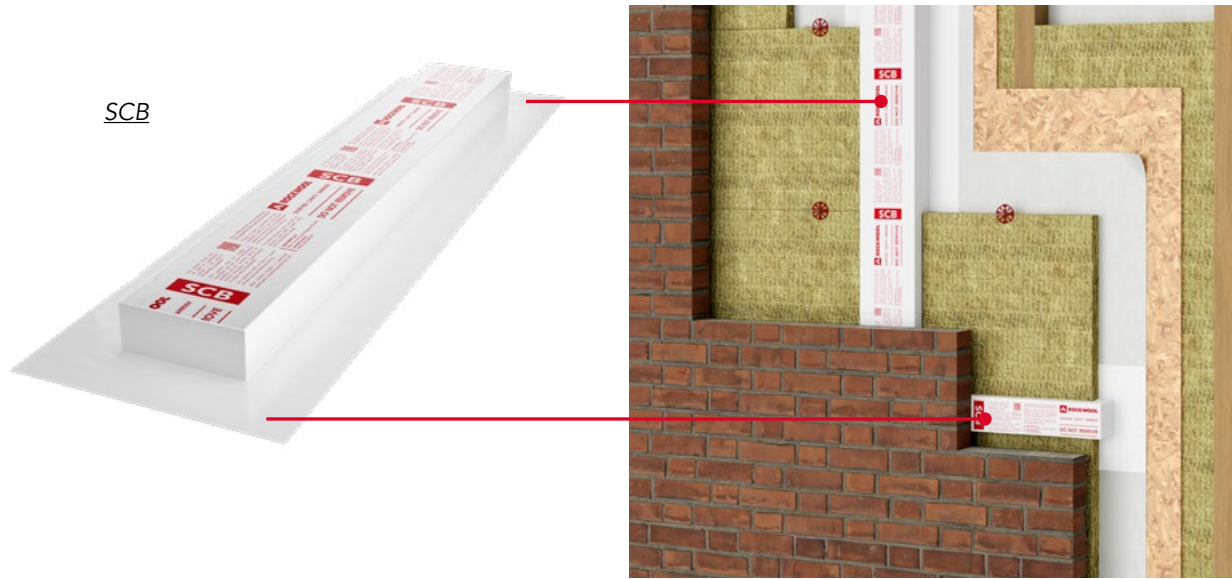
- RainScreen Duo Slab and NyRock Cavity 032 have been certified by the BBA for use in timber frame constructions with a masonry outer leaf



Timber frame slab (mm)	RainScreen Duo Slab (mm)	Service void and reflective vapour control layer	U-value (W/m ² K)
90	50		0.24
90	50	✓	0.23
140	50		0.19
140	50	✓	0.17
NyRock Frame Slab 032 (mm)	NyRock Rainscreen 032 (mm)	Service void and reflective vapour control layer	U-value (W/m ² K)
90	50		0.23
90	50	✓	0.21
140	50		0.18
140	50	✓	0.17

ROCKWOOL cavity barriers

SCB



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance (Subject to the application)	3rd party certification
Timber Frame Slab	✓	Euroclass A1	-	-
NyRock Frame Slab 032	✓	Euroclass A1	-	-
RainScreen Duo Slab	✓	Euroclass A1	-	BBA Approved (Certificate 17/5402)
NyRock Rainscreen 032	✓	Euroclass A1	-	BBA Approved (Certificate 22/6417)
SCB*	-	-	Integrity: 120mins Insulation: 45mins	-
RockClose EN**	-	-	Horizontal: EI60 Vertical: E60 EI45	-

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings

**Meets the criteria of Approved Document L, Section 3 – Thermal bridges

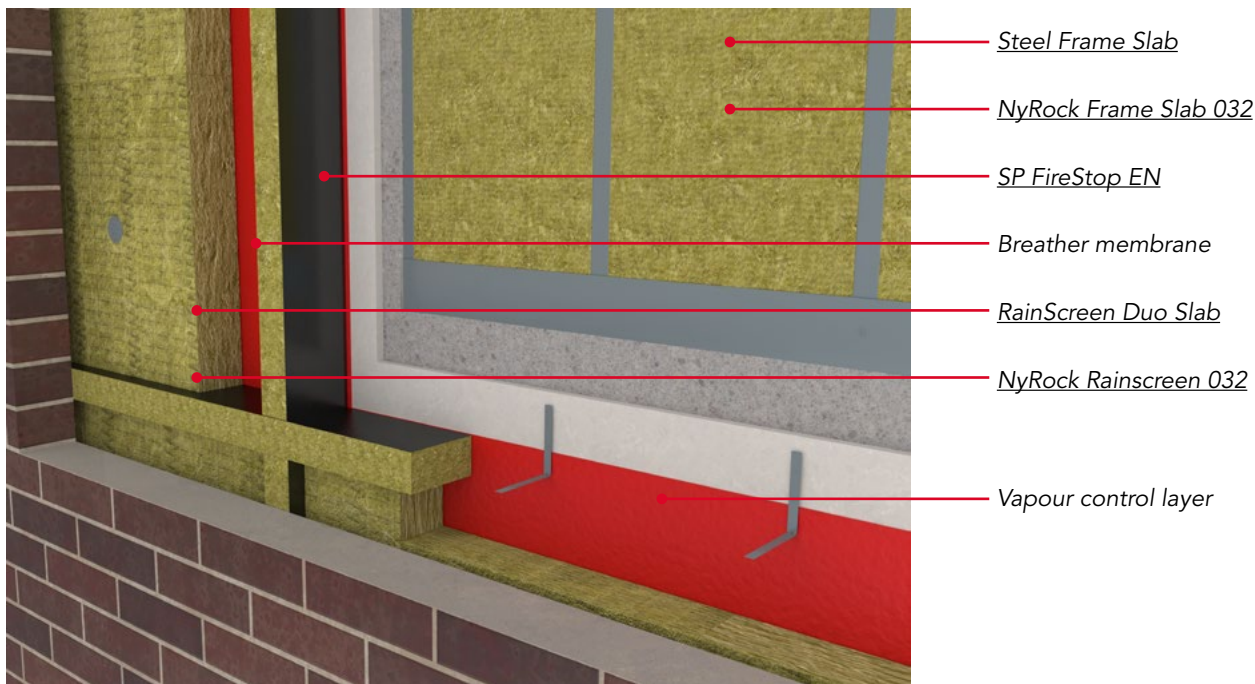
Product specification

Product	NBS clauses	Length (mm)	Width (mm)	Approved thickness range (mm)*
<u>Timber Frame Slab</u>	P10-140	1200	400, 570	50-200
<u>NyRock Frame Slab 032</u>	P10-140	1200	570, 600	50-200
<u>Rainscreen Duo Slab</u>	H11-110, H11-780, H92-776, P10-217	1200	455, 600	50-230
<u>NyRock Rainscreen 032</u>	H11-110, H11-780, H92-776, P10-217	1200	600	50-200
<u>SCB</u>	F30-530, P10-420	1200	110 or 200	60-300

*Thickness options may be subject to a minimum production volume.

For further information on our standard thickness range, please visit rockwool.com/uk

Steel framed walls



ROCKWOOL provides solutions for the thermal, fire, and acoustic insulation of external steel frame walls.

Solutions for masonry and ventilated facades are available. Thermal insulation is provided through insulation between the studs, as well as a sheathing insulation (RainScreen Duo Slab and NyRock Rainscreen 032) to help further reduce U-values. SP FireStop EN solutions prevent the spread of fire, and flanking noise* in the cavity.

*Acoustic test data is available for SP FireStop EN. Please contact ROCKWOOL Technical Support for further information.



- Steel Frame Slab, NyRock Frame Slab 032, RainScreen Duo Slab and NyRock Rainscreen 032 achieve Euroclass A1 reaction to fire
- SP FireStop EN provides up to 120 minutes' fire integrity and insulation* for both horizontal and vertical applications
*Subject to the application



- Non-directional stone wool fibres absorb soundwaves and dampen vibration
- When correctly specified and installed in separating masonry cavity walls, this product can help support compliance with Part E of the Building Regulations



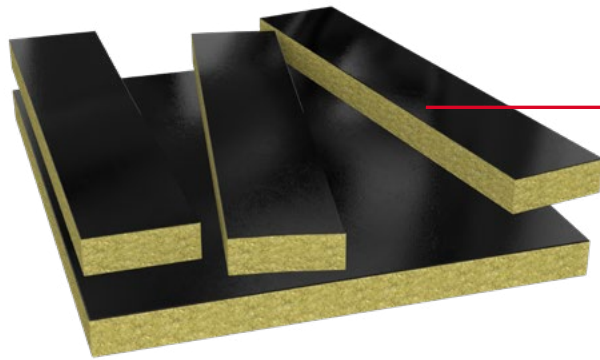
- RainScreen Duo Slab and NyRock Rainscreen 032 have been certified by the BBA for use in steel frame constructions with a masonry outer leaf



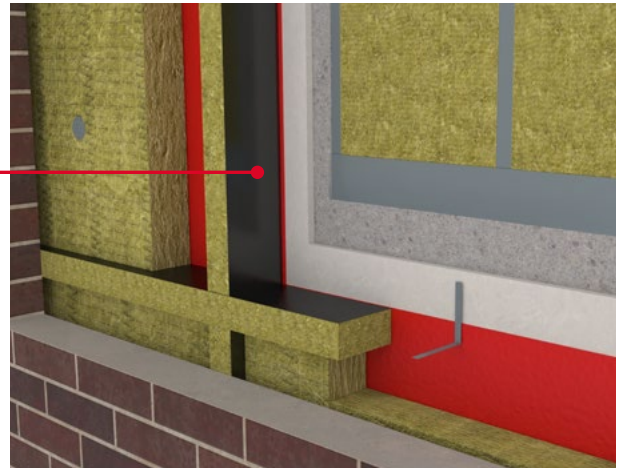
Steel Frame Slab (mm)	RainScreen Duo Slab (mm)	U-value (W/m ² K)
100	50	0.27
100	75	0.22
100	100	0.19
100	150	0.15
NyRock Frame Slab 032 (mm)	NyRock Rainscreen 032 (mm)	U-value (W/m ² K)
100	50	0.26
100	75	0.22
100	100	0.18
100	150	0.14

ROCKWOOL cavity barriers

SP FireStop EN



SP FireStop EN



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
Steel Frame Slab	✓	Euroclass A1	-	-
NyRock Frame Slab 032	✓	Euroclass A1	-	-
RainScreen Duo Slab	✓	Euroclass A1	-	BBA Approved (Certificate 17/5402)
NyRock Rainscreen 032	✓	Euroclass A1	-	BBA Approved (Certificate 22/6417)
*SP FireStop EN		-	Integrity: Up to 120mins** Insulation: Up to 120mins**	

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings

**Subject to the application

While the external wall is not typically required to have a fire resistance performance itself, the compartment floors and walls abutting it do. As such, the SP FireStop EN has been tested within representative wall and floor substrates to prove their fire resistance performance. It is important to note that the fire resistance performance of the firestop is only as good as the performance of the supporting substrates into which it is installed. Where fire-stopping is installed up to a non-fire resisting external wall, then the performance of the firestop will be limited to the performance of the wall itself.

Product specification

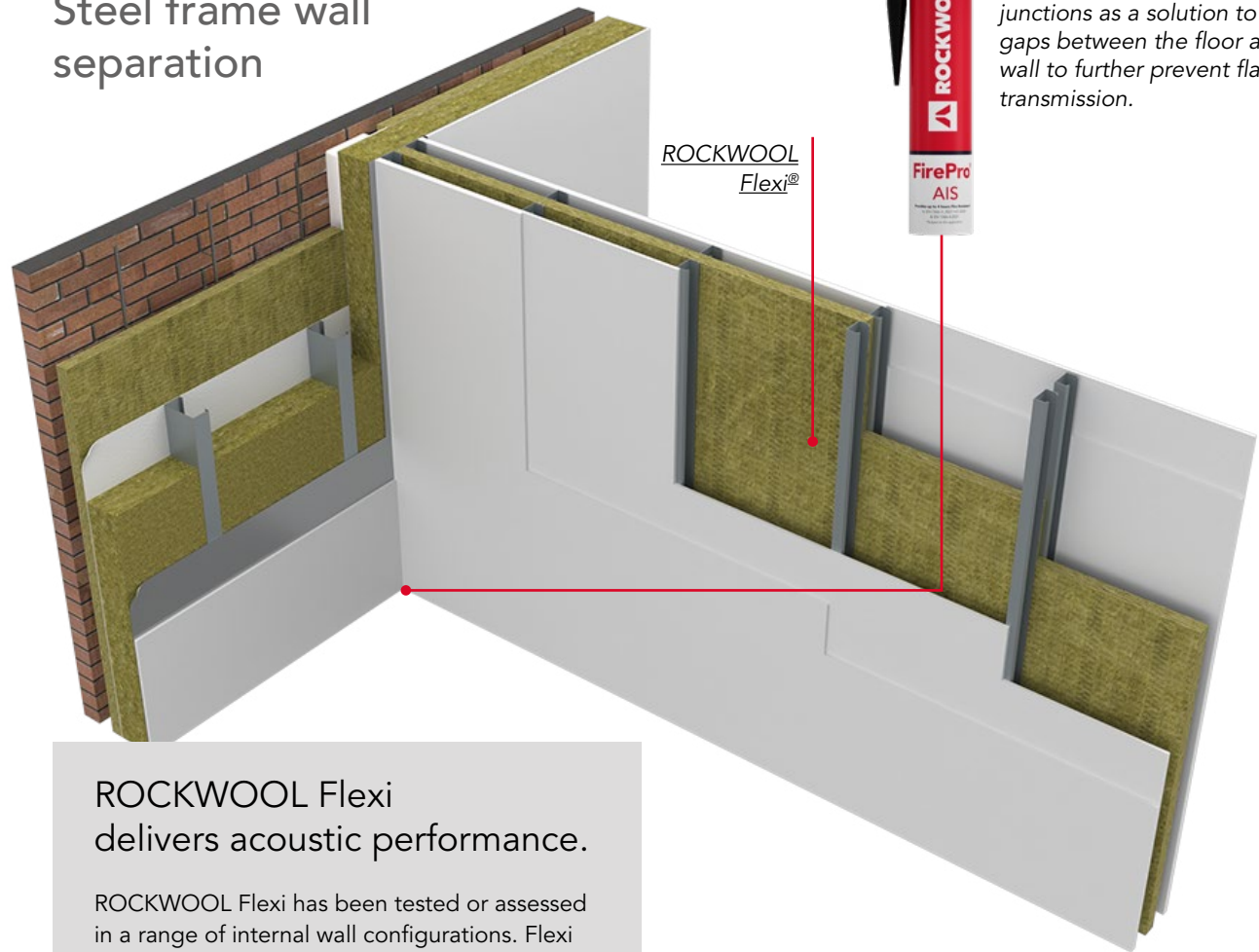
Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>ROCKWOOL Steel Frame Slab</u>	K10-145, K10-155, K10-165	1200	600	50-200
<u>NyRock Frame Slab 032</u>	P10-140	1200	570, 600	50-200
<u>RainScreen Duo Slab</u>	H11-110, H11-780, H92-776, P10-217	1200	600	50-230
<u>NyRock Rainscreen 032</u>	H11-110, H11-780, H92-776, P10-217	1200	600	50-200
<u>SP FireStop EN</u>	F30-180, P10-432, P12-360	1200	1000	75-90

*Thickness options may be subject to a minimum production volume.

For further information on our standard thickness range, please visit rockwool.com/uk

Separating walls

Steel frame wall separation



FirePro AIS can be used at junctions as a solution to seal gaps between the floor and wall to further prevent flanking transmission.

ROCKWOOL Flexi delivers acoustic performance.

ROCKWOOL Flexi has been tested or assessed in a range of internal wall configurations. Flexi slab is manufactured with a flexible edge which allows for a close fit to the supporting framework.



- ROCKWOOL Flexi is Euroclass A1 non-combustible

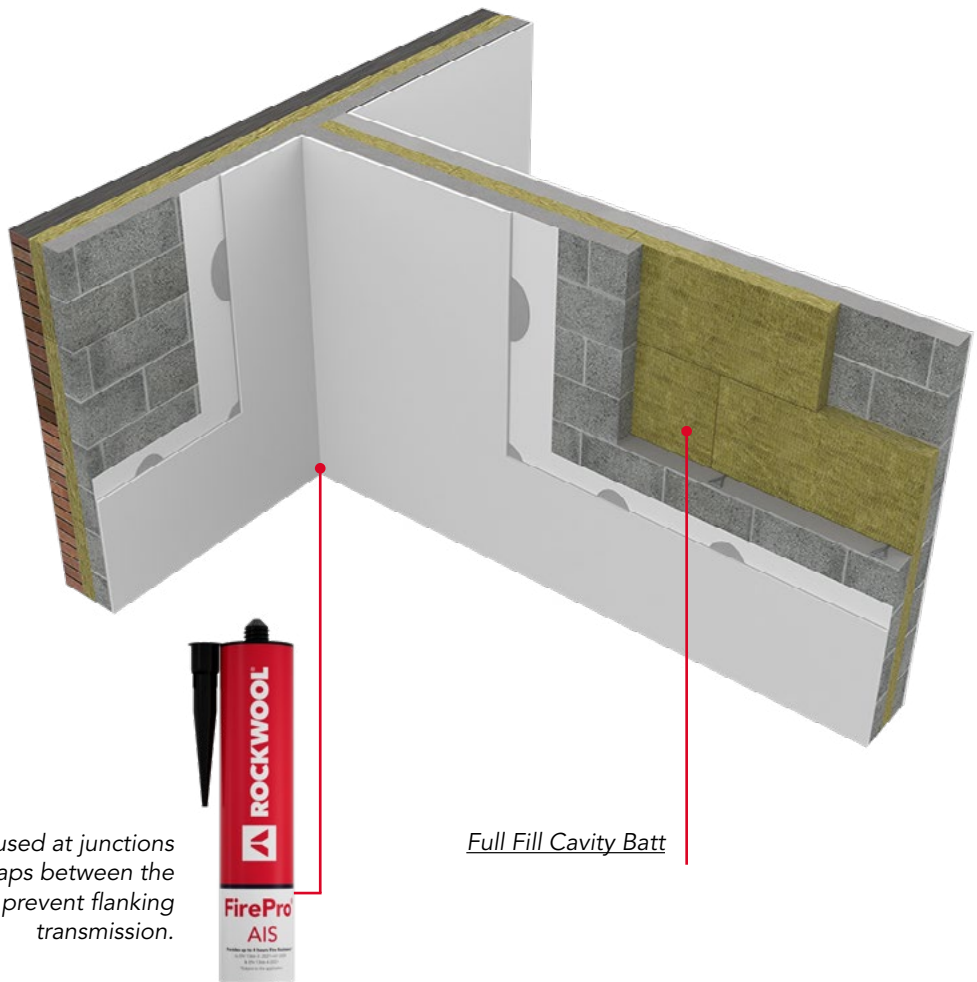


Robust details

E-WT1: Timber frame	E-WS-1: Twin metal frames	Performance
Independent timber frames with a minimum 50mm gap	Independent steel frames with a minimum 50mm gap	Airborne Sound Reduction $D_{nT,w} + C_{tr}$ 50dB
Minimum 240mm between inside lining faces	Minimum 200mm between inside lining faces	
60mm ROCKWOOL Flexi in both frames	50mm ROCKWOOL Flexi in both frames	
2 x 15mm plasterboard (22kg/m ²) to each side of the wall	2 x 15mm plasterboard (22kg/m ²) to each side of the wall	

Masonry party wall solution

- ROCKWOOL Cavity Batt can be used to fully fill a masonry party wall and reduce the U-value to 0.00W/m²K
- Full Fill Cavity Batts can be used to support robust details for acoustic insulation in masonry party wall constructions



FirePro AIS can be used at junctions as a solution to seal gaps between the floor and wall to further prevent flanking transmission.

Full Fill Cavity Batt

Standards and approvals

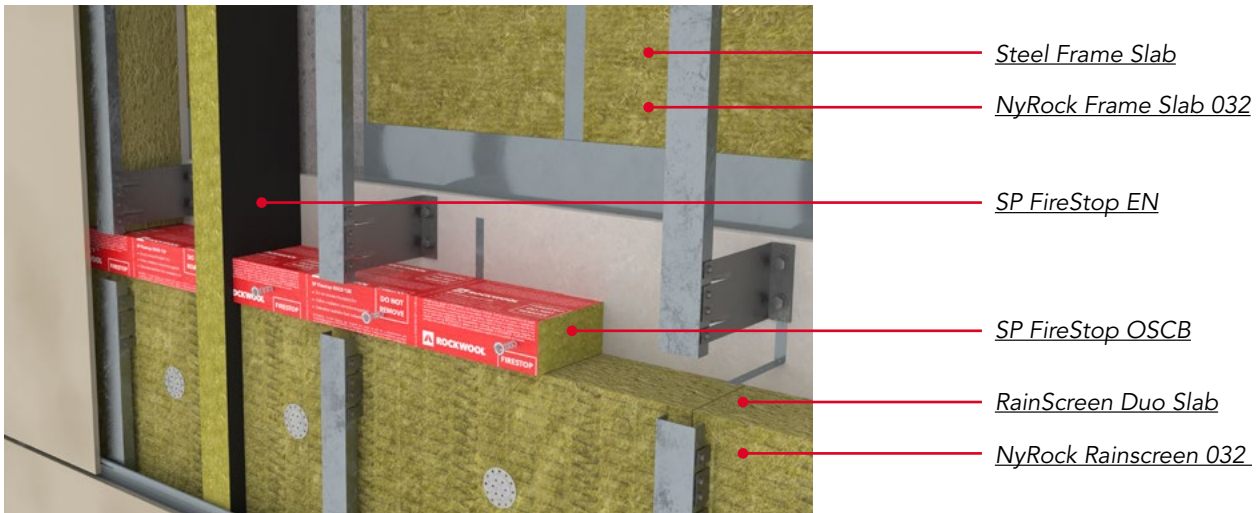
Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
ROCKWOOL Flexi	✓	Euroclass A1	-	-
Full Fill Cavity Batt	✓	Euroclass A1	-	BBA Approved (Certificate 17/5402)

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>ROCKWOOL Flexi</u>	K10-115, K10-125, K10-145, K10-155, K10-165, K10-215, K11-115, K11-125, K11-135, K11-145, K11-795, K11-796, K20-150, K21-120, K21-130, K21-140, P10-140, P10-170, P10-240, P10-250	1200	400, 600	50-200
<u>Full Fill Cavity Batt</u>	F30-130	1200	455	50-250

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Ventilated rainscreen



▪ RainScreen Duo Slab, NyRock Rainscreen 032, Steel Frame Slab and NyRock Frame Slab 032 are Euroclass A1, non combustible and can be used on buildings of any height.

▪ SP FireStop EN and SP FireStop OSCB are tested to provide up to two hours' integrity and insulation in the event of a fire, subject to the application.

▪ RainScreen Duo Slab and NyRock Rainscreen 032 have been certified by the BBA for use in RainScreen Cladding Systems.



ROCKWOOL offers a non-combustible insulation and fire barrier solution for ventilated rainscreen walls.

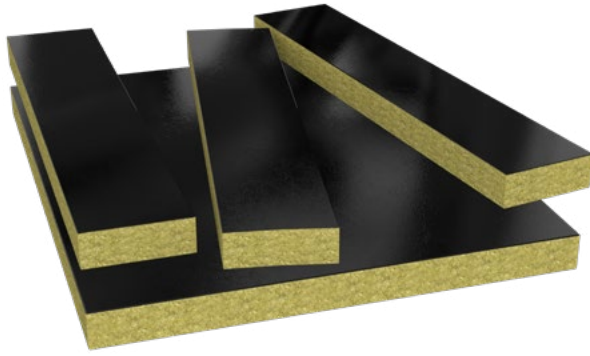
ROCKWOOL provides a range of products for rainscreen facade applications that now includes low lambda NyRock Rainscreen 032, which can be combined with NyRock Frame Slab 032 for improved thermal performance. SP FireStop EN and SP FireStop OSCB provide up to two hours' integrity and insulation in the event of a fire, subject to the application.

Steel Frame Slab (mm)	RainScreen Duo Slab (mm)	U-value (W/m ² K)
150	75	0.24
150	100	0.21
150	150	0.18
150	180	0.17
NyRock Frame Slab 032 (mm)	NyRock Rainscreen 032 (mm)	U-value (W/m ² K)
150	70	0.22
150	100	0.19
150	150	0.16
150	170	0.14



RainScreen Duo Slab (mm)	ROCKWOOL Steel Frame Slab within frame (mm)	Layers of 15mm acoustic plasterboard (mm)	Rockpanel A2		ACM (Booth Muirie)	
			R _w	R _w + C _{tr}	R _w	R _w + C _{tr}
50	90	2	57	50	58	47
	90	1	57*	47*	58	45
100	90	2	59	52	58	49
	90	1	59*	51*	58*	48*
180	90	2	62	54	60	52
	90	1	62*	53*	60*	52*

*Assessed against the data held within test report C/23666/T03



SP FireStop EN



SP FireStop OSCB

Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
RainScreen Duo Slab	✓	Euroclass A1	-	BBA Approved (Certificate 17/5042)
NyRock Rainscreen 032	✓	Euroclass A1	-	BBA Approved (Certificate 22/6417)
Steel Frame Slab	✓	Euroclass A1	-	-
NyRock Frame Slab 032	✓	Euroclass A1	-	-
SP FireStop EN	-	-	Integrity: Up to 120mins** Insulation: Up to 120mins**	-
SP FireStop OSCB	-	-	Integrity: Up to 120mins Insulation: Up to 120mins	-

*Meets the criteria of Approved Document E, Section 2 – Separating walls and associated flanking constructions for new buildings

**Subject to the application

While the external wall is not typically required to have a fire resistance performance itself, the compartment floors and walls abutting it do. As such, the SP FireStop EN has been tested within representative wall and floor substrates to prove their fire resistance performance. It is important to note that the fire resistance performance of the firestop is only as good as the performance of the supporting substrates into which it is installed. Where fire-stopping is installed up to a non-fire resisting external wall then the performance of the firestop will be limited to the performance of the wall itself.

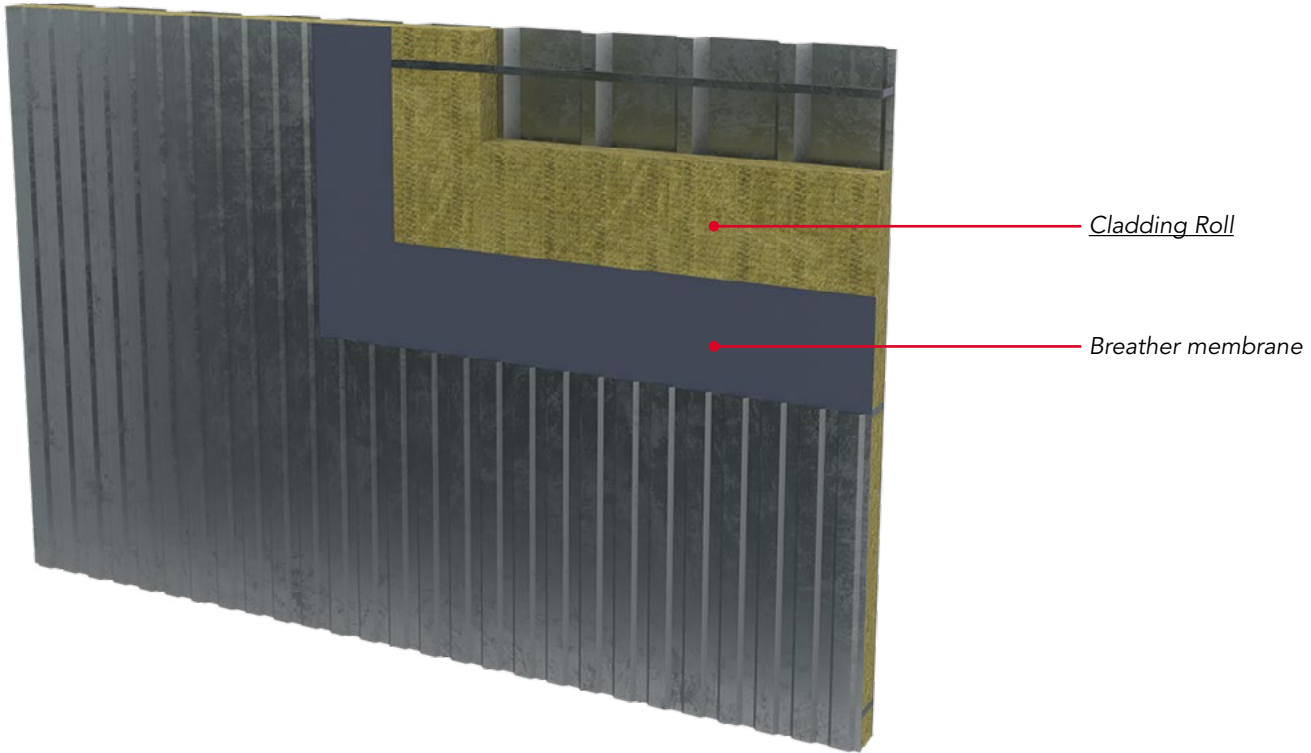
Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>Steel Frame Slab</u>	K10-145, K10-155, K10-165	1200	600	50-200
<u>NyRock Frame Slab 032</u>	P10-140	1200	570, 600	50-200
<u>RainScreen Duo Slab</u>	H11-110, H11-780, H92-776, P10-217	1200	600	50-230
<u>NyRock Rainscreen 032</u>	H11-110, H11-780, H92-776, P10-217	1200	600	50-200
<u>SP FireStop EN</u>	F30-180, P10-432, P12-360	1200	1000	75-90
<u>SP FireStop OSCB</u>	F30-180, P10-432, P12-360	1000	75-575	90

*Thickness options may be subject to a minimum production volume.

For further information on our standard thickness range, please visit rockwool.com/uk

Twin skin metal cladding



This fire-resistant cladding insulation offers thermal and acoustic benefits to commercial or industrial framed buildings.



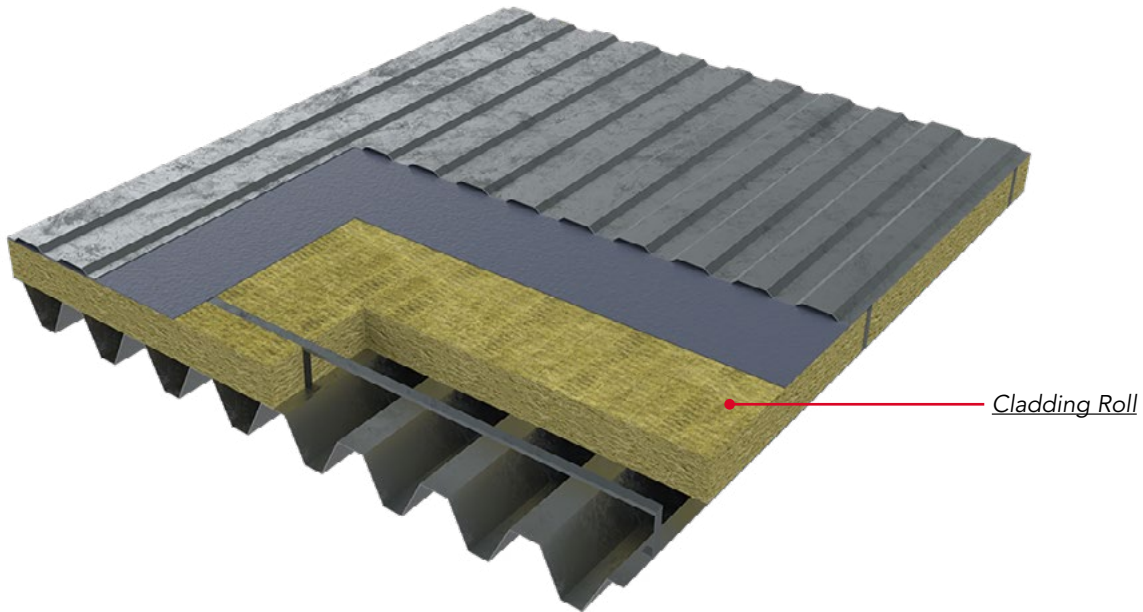
- Tests have shown that with suitably designed constructions, sound reduction can be achieved.
- A 0.4mm thick lining sheet and 0.55mm outer sheet filled with 100mm Cladding Roll achieved R_w 37dB.
- This can be increased to R_w 38dB by including an air space between the insulation and the outer sheets.



U-value (W/m^2K)	Thickness (mm)
0.24	180
0.22	200
0.20	220



- A typical metal twin skin wall incorporating ROCKWOOL Cladding Roll has been fire tested and shown to comply with BS 476: Part 22 as a fire-rated wall one metre or more from a relevant boundary.
- The over sheeting rail system achieved four hours' integrity, four hours' stability and 17 minutes' insulation (Warres No. 42624 + WF153726).
- Alternative fire wall designs have been tested by cladding systems manufacturers using different sheeting, fixing and spacer systems. These manufacturers should be contacted for full specification and design.



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
Cladding Roll	✓	Euroclass A1	-	-

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	Approved thickness range (mm)
<u>Cladding Roll</u>	H30-311, H31-254, H31-271, P10-220	2200-5000	1200	60-220

Flat roof solutions

Specify performance where it's needed.

Supporting specifiers in delivering developments that address modern construction demands, ROCKWOOL enables flexibility in design by providing access to a wide range of solutions that facilitate flat roof zoning.

Where building design incorporates green roofs, roof terraces, and roof gardens in line with the living roof agenda, the ROCKWOOL HardRock® range presents a solution for every application.

For rooftop plant and machinery, ROCKWOOL flat roof solutions offer a choice of acoustic performance and dual-density products that will help reduce transmission of sound into the building below.

With rain noise known to significantly increase indoor noise levels – up to 70dB (A) in some cases* – reducing noise transfer from the roof and into buildings is a key design consideration. Building Regulation submissions should demonstrate that lightweight roofs and roof glazing have been designed to control reverberant rain noise, while BREEAM for Schools provides credits for not exceeding the allowable indoor ambient noise level by more than 25dB.

High density ROCKWOOL roof boards can help provide an effective barrier to the drumming effects of rain noise. Tests show that when used within a flat roof system, ROCKWOOL roof boards are proven to reduce rain noise intensity.

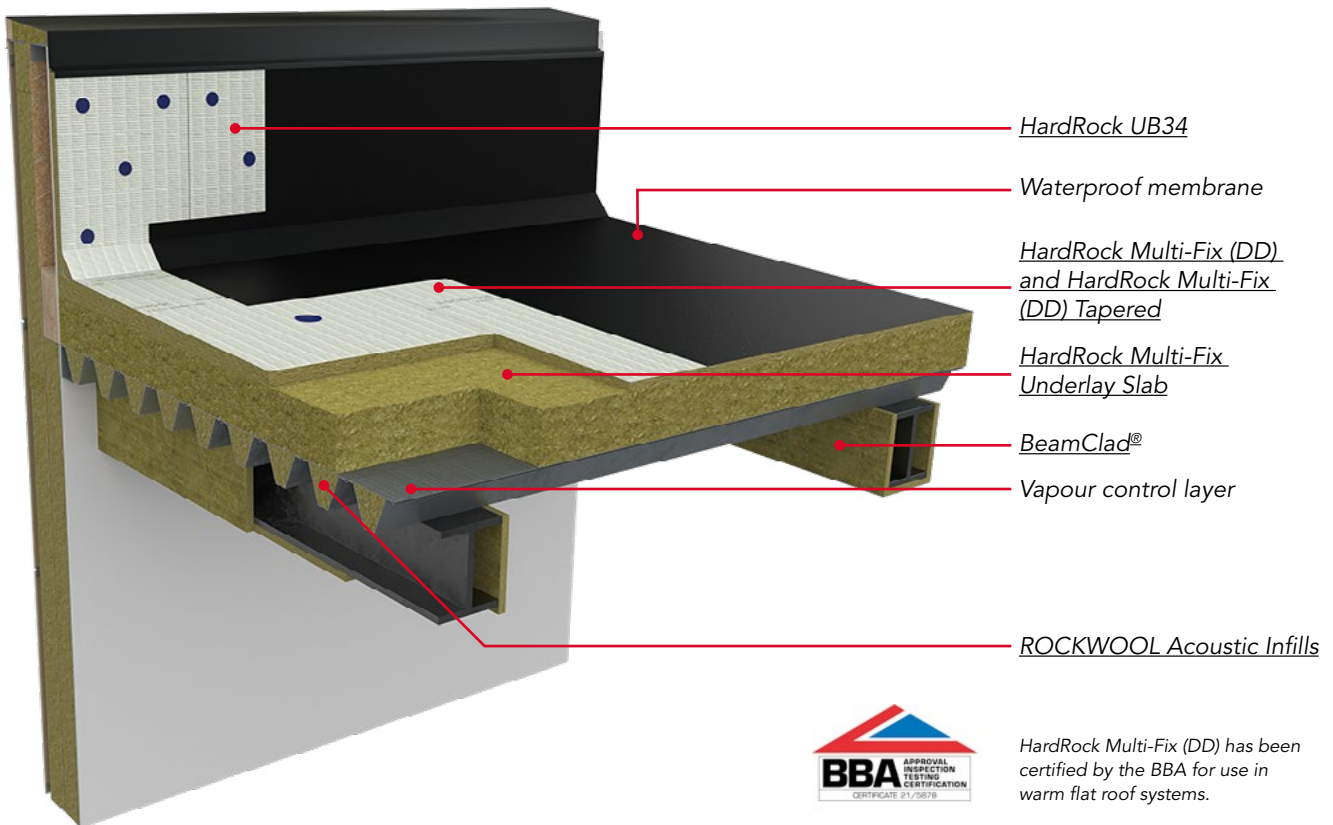
Flat roofs are the fifth facade in the building fabric, so fire safety is a key design consideration. ROCKWOOL stone wool roof boards are non-combustible and achieve a Reaction to Fire Euroclass rating of A1 or A2-s1, d0.



*www.association-of-noise-consultants.co.uk/acoustics-of-schools-a-design-guide/



HardRock Multi-Fix (DD)



HardRock Multi-Fix (DD) has been certified by the BBA for use in warm flat roof systems.

A versatile insulation solution for flat roofs, suitable for areas subject to pedestrian traffic and frequent maintenance, and compatible with all roof covering types – including torch-on, pour-and-roll, single ply, EPDM, liquid-applied, and green roofs.

As well as delivering proven thermal and fire performance, the innate acoustic properties of ROCKWOOL HardRock Multi-Fix (DD) deliver proven thermal and fire performance. Through acoustic testing, HardRock Multi-Fix (DD) has also demonstrated the ability to reduce noise ingress and egress through the building envelope.



In addition to being non-combustible, HardRock Multi-Fix has been fire tested to BS EN 1365-2 as part of a weight-loaded steel deck flat roof system to provide two hours' integrity and insulation performance.



Insulation layer 1 (mm)	Insulation layer 2 (mm)	Single ply membrane U-value (W/m ² K)	Bitumen (2-layer felt) U-value (W/m ² K)
150	60	0.18	0.18
150	85	0.16	0.16
150	105	0.15	0.15

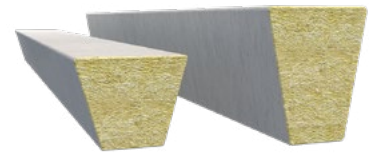


Insulation layer 1 (mm)	Insulation layer 2 (mm)	Airborne reduction (dB)	Rain intensity (dB)	Airborne reduction (dB)	Rain intensity (dB)
150	60	R _w 44	L _{IA} 48.7	R _w 45	L _{IA} 47.5
150	85	R _w 45	L _{IA} 47.8	R _w 46	L _{IA} 46.7
150	105	R _w 46	L _{IA} 47.1	R _w 47	L _{IA} 46.1

Based on D60 profiled steel deck. Further variations available on request.

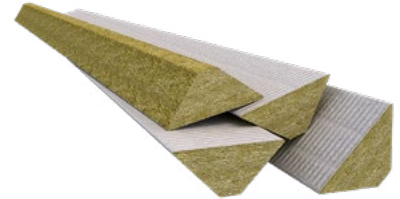
Acoustic Infills

The underside of a perforated metal deck roof can be used to control build up of internal noise, reducing the reverberation time through the absorption offered by [ROCKWOOL Acoustic Infills](#).



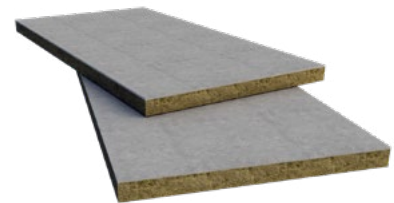
HardRock Multi-Fix Angle Fillets

Manufactured from high density ROCKWOOL stone wool, [HardRock Multi-Fix Angle Fillets](#) are designed to be installed at 90° abutments. For where roof insulation meets an upstand, Angle Fillets smooth the transition from horizontal to vertical while fully supporting the waterproof membrane.



HardRock UB34

Consisting of non-combustible ROCKWOOL insulation faced with an exterior grade non-combustible 6mm fibre cement board, [HardRock UB34](#) achieves a Euroclass fire classification of A2-s1, d0, offering a non-combustible solution for insulating upstands and parapet walls.



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
HardRock Multi-Fix (DD)	✓	Euroclass A2-s1, d0	120 Minutes	LPCB (Certificate 022g)
HardRock Multi-Fix (DD) Underlay Slab	✓	Euroclass A1	120 Minutes	LPCB (Certificate 022g)

NBS specifications

ROCKWOOL HardRock Multi-Fix is associated with the following NBS clauses:

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
HardRock Multi-Fix (DD)	J21-425, J31-334, J41-425, J42-425, K11-695	1000	1200	60-185

*Thickness options may be subject to a minimum production volume.

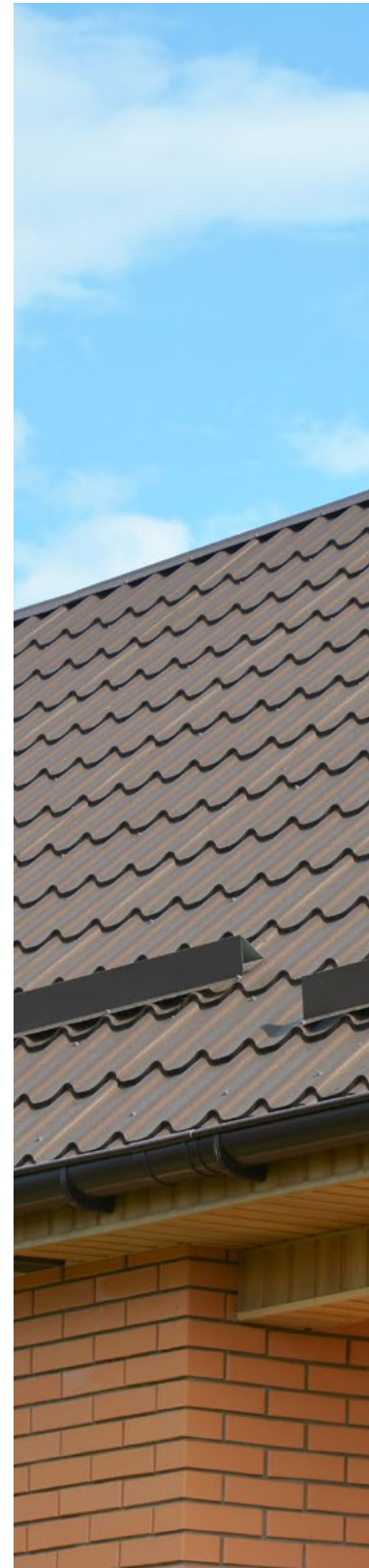
For further information on our standard thickness range, please visit rockwool.com/uk

Pitched roof solutions

Cold and warm pitched roof solutions.

As a traditional method of building construction, pitched roof systems remain a widely specified solution in the 21st century owing to the versatility they afford to create additional space, require low maintenance, and have a long life span.

Recognising that the insulation requirements of a pitched roof will be determined by how the roof space will be used, ROCKWOOL offers a range of products for installation between the joists, or for high performance systems both between and over the rafters. Using ROCKWOOL pitched roof insulation provides thermal performance and also contributes to sound reduction and fire resilience.





Cold pitched roofs



Roll, Twin Roll or Rollbatt

ROCKWOOL Roll is a loft insulation solution for horizontal loft application.

ROCKWOOL Roll is made up of medium density mineral wool insulation. The thermal insulation boasts acoustic properties and is fire resistant, rated A1 Euroclass non-combustible. This insulation solution is suitable for horizontal roof application in all building types, or can be used as an acoustic absorber in suspended ceilings.



- Roll, Twin Roll and Rollbatt are Euroclass A1 non-combustible.



- Non-directional stone wool fibres absorb soundwaves and dampen vibration.



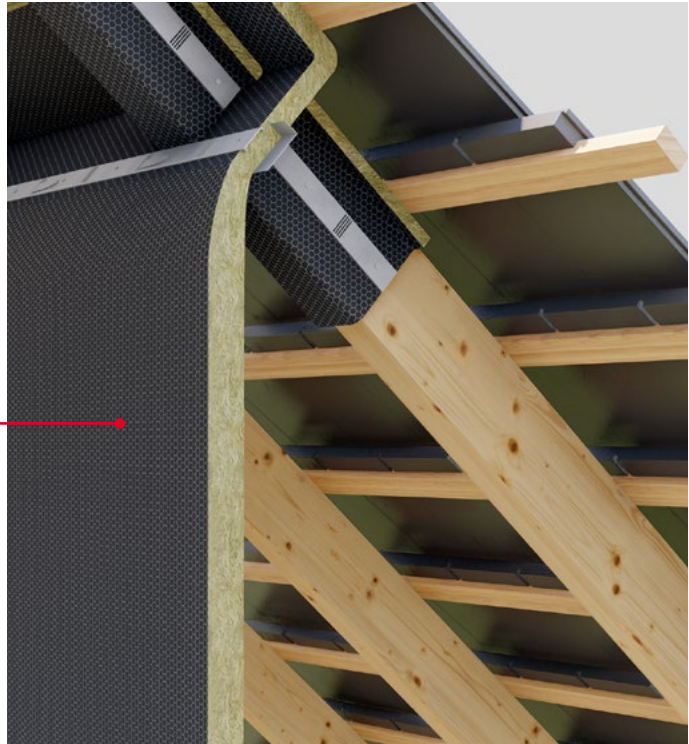
U-value (W/m ² K)	ROCKWOOL Roll between joists (mm)	ROCKWOOL Roll over joists (mm)	Total insulation thickness (mm)
0.17	100	150	250
0.16	100	170	270
0.14	100	200	300
0.12	100	250	350
0.11	100	300	400

Fire Barrier EN System



- Fire Barrier EN Systems can be used to prevent the spread of fire and smoke in pitched roof spaces.

Fire Barrier EN



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
Roll, Twin Roll, Rollbatt	✓	Euroclass A1	-	-
Fire Barrier EN	-	Euroclass A1	Integrity: Up to 60mins Insulation: Up to 60mins	-

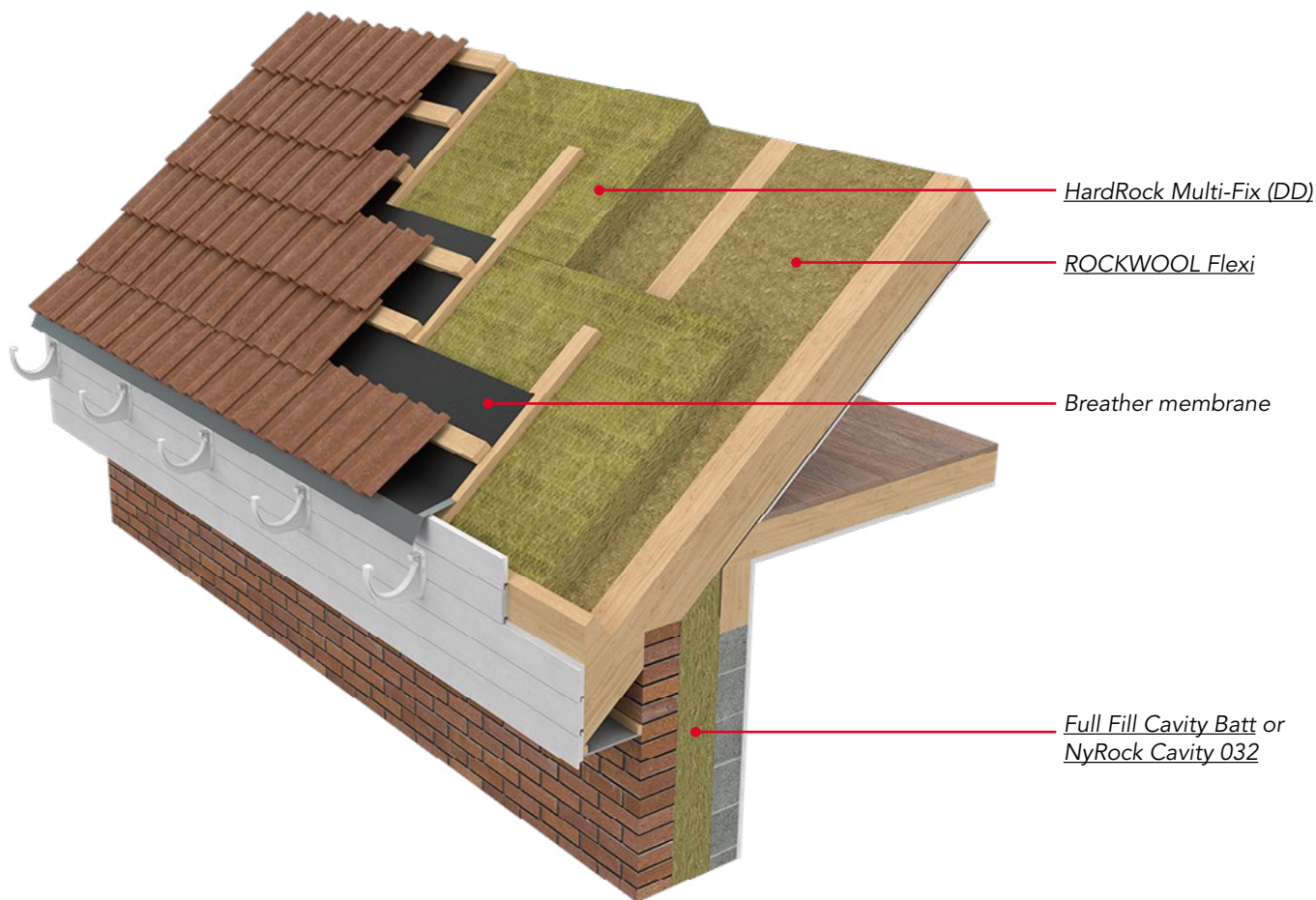
*Subject to the application

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>Roll</u>	P10-125, P10-135, P10-140, P10-170, P10-190, P10-217, P10-220, P10-240, P10-250	3650	1200	100-220
<u>Twin Roll</u>		2750	1200	
<u>Rollbatt</u>		3650, 4800	400, 600	
<u>Fire Barrier EN</u>	K10-530, K10-545, K40 - 287, P10-410, P10-430, P10-440	3500, 4000	1000	50

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Warm pitched roofs



ROCKWOOL RockFall® insulation is compatible with all types of pitched roof systems.

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



- HardRock Multi-Fix (DD) has a Euroclass rating of A2-s1, d0 and ROCKWOOL Flexi is Euroclass A1.



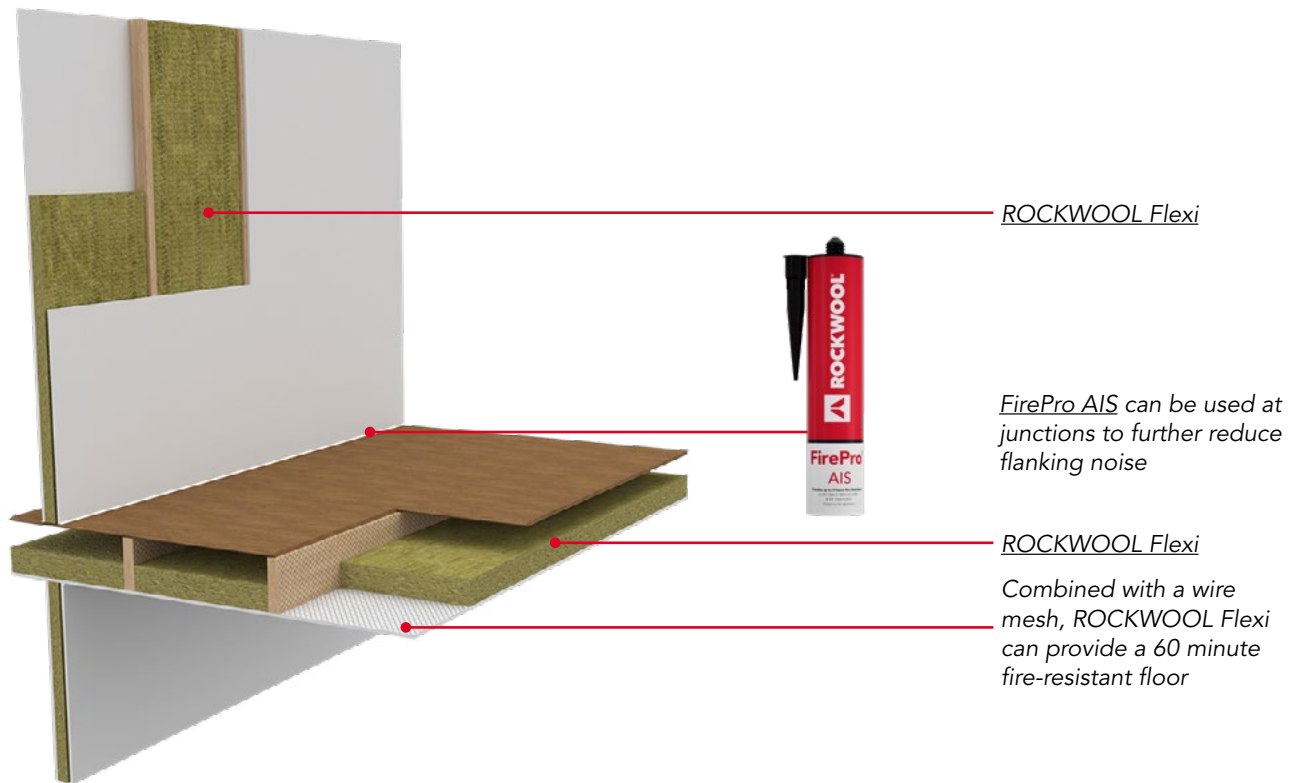
- Helps to reduce external noise from rain, aircraft, road, and rail.



U-value (W/m ² K)	HardRock Multi-Fix (DD) over rafters (mm)	ROCKWOOL Flexi between rafters (mm)
0.21	85	100
0.17	85	140
0.15	85	180
0.14	85	200
0.13	85	220

Wall and floor solutions

ROCKWOOL Flexi provides a single solution for multiple warm pitched roof applications.



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
ROCKWOOL Flexi	✓	Euroclass A1	60 minute floor	-
HardRock Multi-Fix (DD)	✓	Euroclass A2-s1, d0	-	LPCB (Certificate 022g)

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>ROCKWOOL Flexi</u>	K10-115, K10-125 K10-145, K10-155 K10-165, K10-215 K11-115, K11-125 K11-135, K11-145 K11-795, K11-796 K20-150, K21-120 K21-130, K21-140 P10-140, P10-170 P10-240, P10-250	1200	400, 600	50-200
<u>HardRock Multi-Fix (DD)</u>	J21-425, J31-334 J41-425, J42-425 K11-695	1000	1200	60-185

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Floor solutions

With a ROCKWOOL flooring solution for every application, specifiers can help support comfortable interior conditions.

As high-rise living and buildings with multiple occupancy become increasingly common, the acoustic performance of intermediate and separating floors is an important factor in design criteria and specifications.

The non-directional fibre orientation and density of ROCKWOOL stone wool help absorb sound waves and dampen vibrations, reducing the transmission of noise.

Energy efficiency is increasingly important in UK construction, which means the thermal performance of ground floors is a key consideration in sustainable design criteria and specifications.

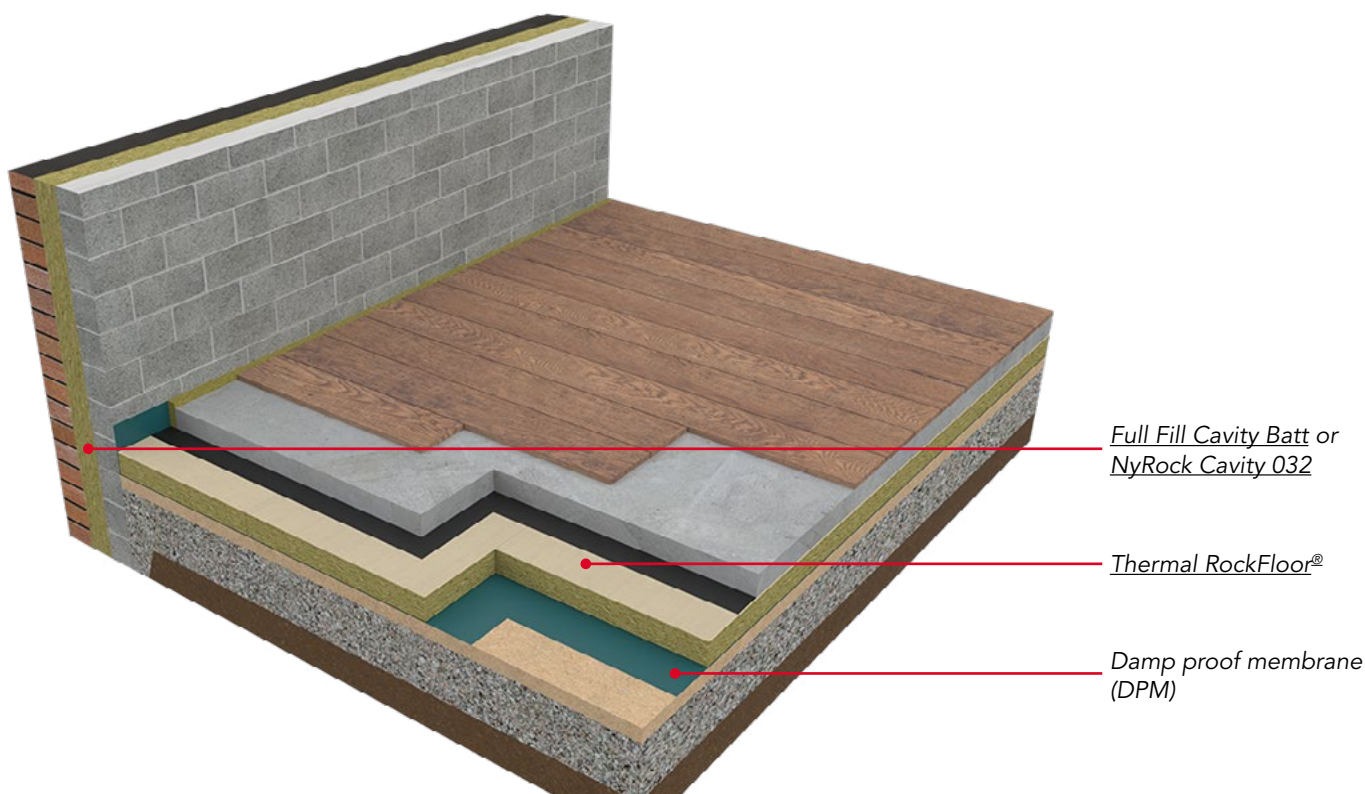
When used in ground floor slabs, ROCKWOOL flooring solutions can help improve the overall U-value rating of a building. Separating and suspended floors benefit from proven thermal performance that can help regulate interior temperatures, supporting a comfortable indoor climate for building occupants.





Ground floors

Ground bearing slab



Thermal RockFloor is a dual-density thermal insulation solution designed for ground floor slab or suspended concrete beam and block floor applications.

Thermal RockFloor can be installed below concrete slab or screed and is also suitable for use under most timber floor surfaces including flooring-grade T&G chipboard, OSB, or plywood. The dual-density layers allow for unevenness and imperfections on the sub-floor surface to be absorbed, while the high density upper layer provides the required load resistance.



Thermal RockFloor achieves Euroclass A1 fire resistance.



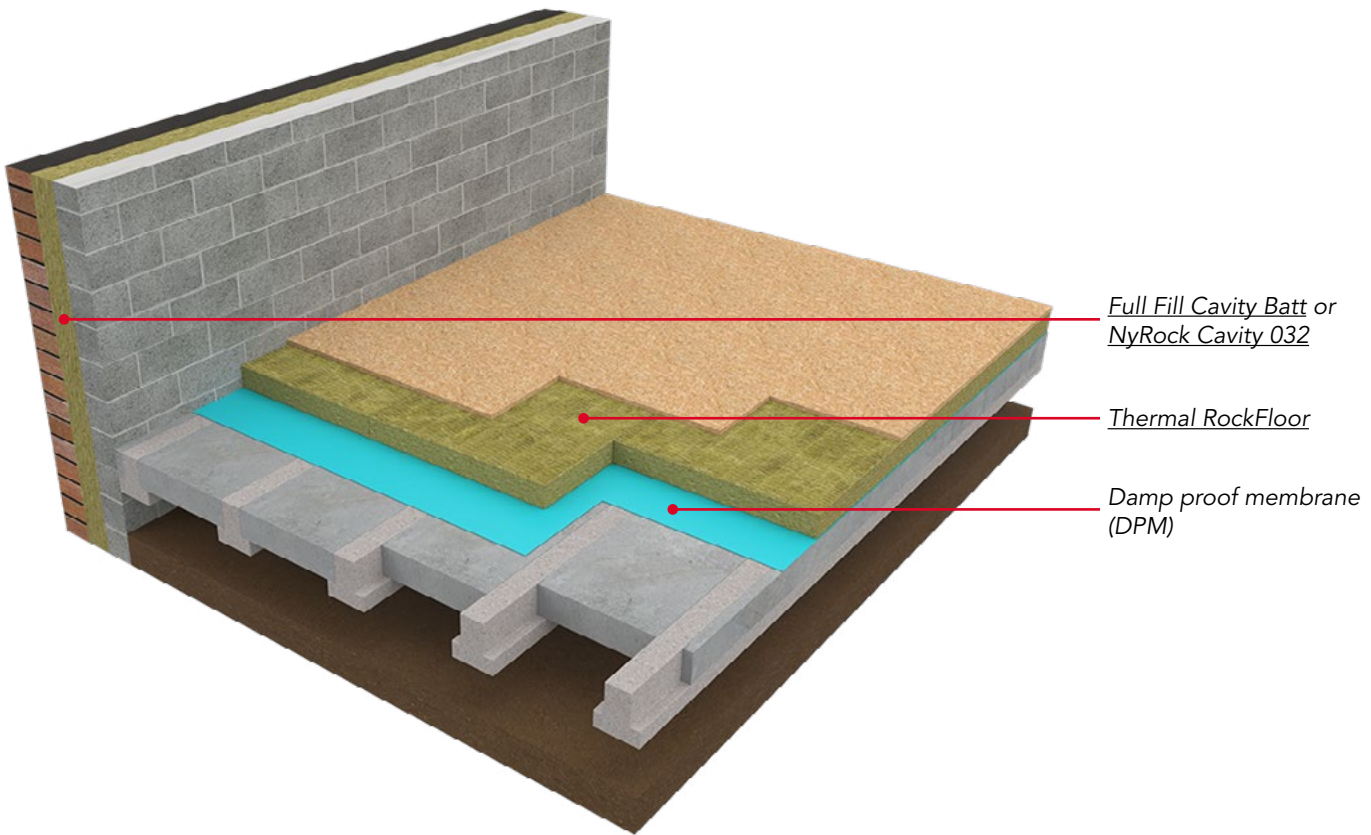
U-value	Thermal RockFloor *thickness required (mm)									
	0.22		0.2		0.18		0.15		0.13	
P/A Ratio	Ground ¹	Suspended ²	Ground ¹	Suspended ²	Ground ¹	Suspended ²	Ground ¹	Suspended ²	Ground ¹	Suspended ²
0.1	0	30	0	50	0	65	40	110	70	150
0.2	50	80	65	100	85	120	120	160	160	200
0.3	80	100	95	120	115	140	150	180	190	210
0.4	95	115	110	130	130	150	170	190	210	230
0.5	100	120	120	135	150	160	180	200	220	230
0.7	115	125	135	145	155	165	195	200	230	245
0.9	125	130	140	150	160	165	200	210	235	245

*The thicknesses quoted may be subject to minimum production volumes. Please contact ROCKWOOL Technical Support to discuss specifications that require thicknesses above 200mm.

¹65mm screed, 150mm medium density (2000kg/m³) concrete, DPM ²18mm chipboard, 100mm beam and block

Ground floors

Suspended beam and block



Standards and approvals

Product	CE Marking	Reaction to fire
Thermal RockFloor	✓	Euroclass A1

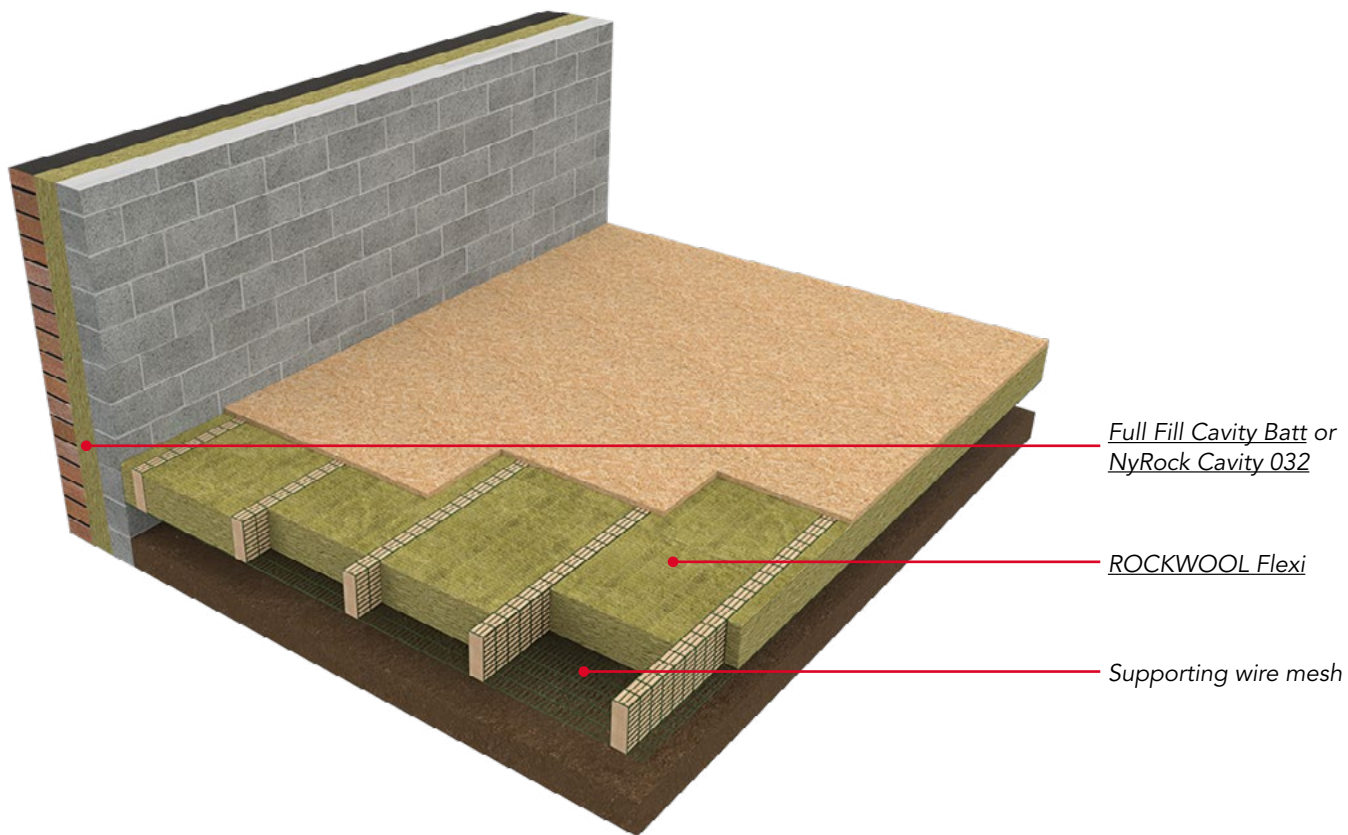
Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>Thermal RockFloor</u>	E20-200 K11-215 K11-225 K11-235 K11-245 M10-290 M13-260	1000	600	50-185

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Ground floors

Suspended timber



*Full Fill Cavity Batt or
NyRock Cavity 032*

ROCKWOOL Flexi

Supporting wire mesh

ROCKWOOL Flexi provides thermal insulation for suspended timber floors.

The flexible edge enables a tight friction fit that eliminates gaps, reducing thermal bridging and cold spots.



ROCKWOOL Flexi achieves Euroclass A1 fire resistance.



U-value P/A Ratio	ROCKWOOL Flexi *thickness required (mm) ¹				
	0.22	0.2	0.18	0.15	0.13
0.1	30	50	70	120	160
0.2	100	120	140	190	230
0.3	120	140	160	220	260
0.4	130	155	180	230	280
0.5	140	160	190	230	280
0.7	150	175	200	250	285
0.9	160	180	210	250	310

*The thicknesses quoted may be subject to minimum production volumes.

¹18mm chipboard, timber joists at 400mm centres.

Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
ROCKWOOL Flexi	✓	Euroclass A1	-	-

Product specification

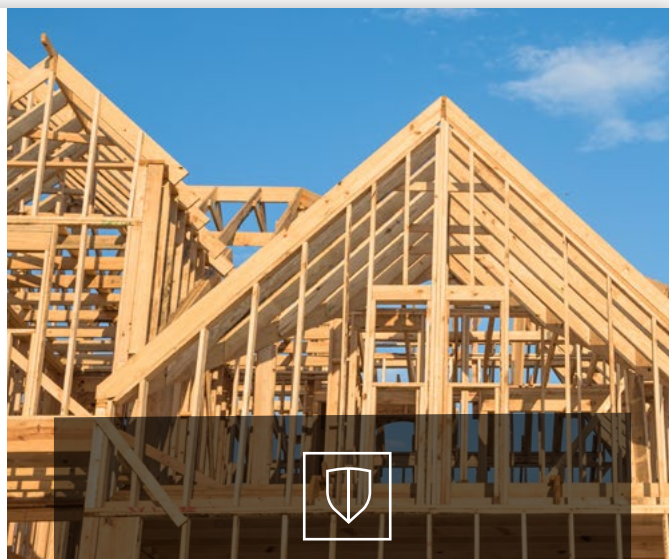
Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
ROCKWOOL Flexi	K11-115 K11-125 K11-135 K11-145 K20-150 K21-120 K21-130 K21-140 P10-240	1200	400 & 600	50-200

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Creating resilient timber frame buildings

Timber frame construction is at the forefront of design innovation in the construction industry.

This CPD assesses the HSE Fire Safety in Construction guidance (HSG 168) in detail, and reviews testing carried out by ROCKWOOL that enables mitigation of fire risk during construction and allows buildings to be constructed closer together on site.

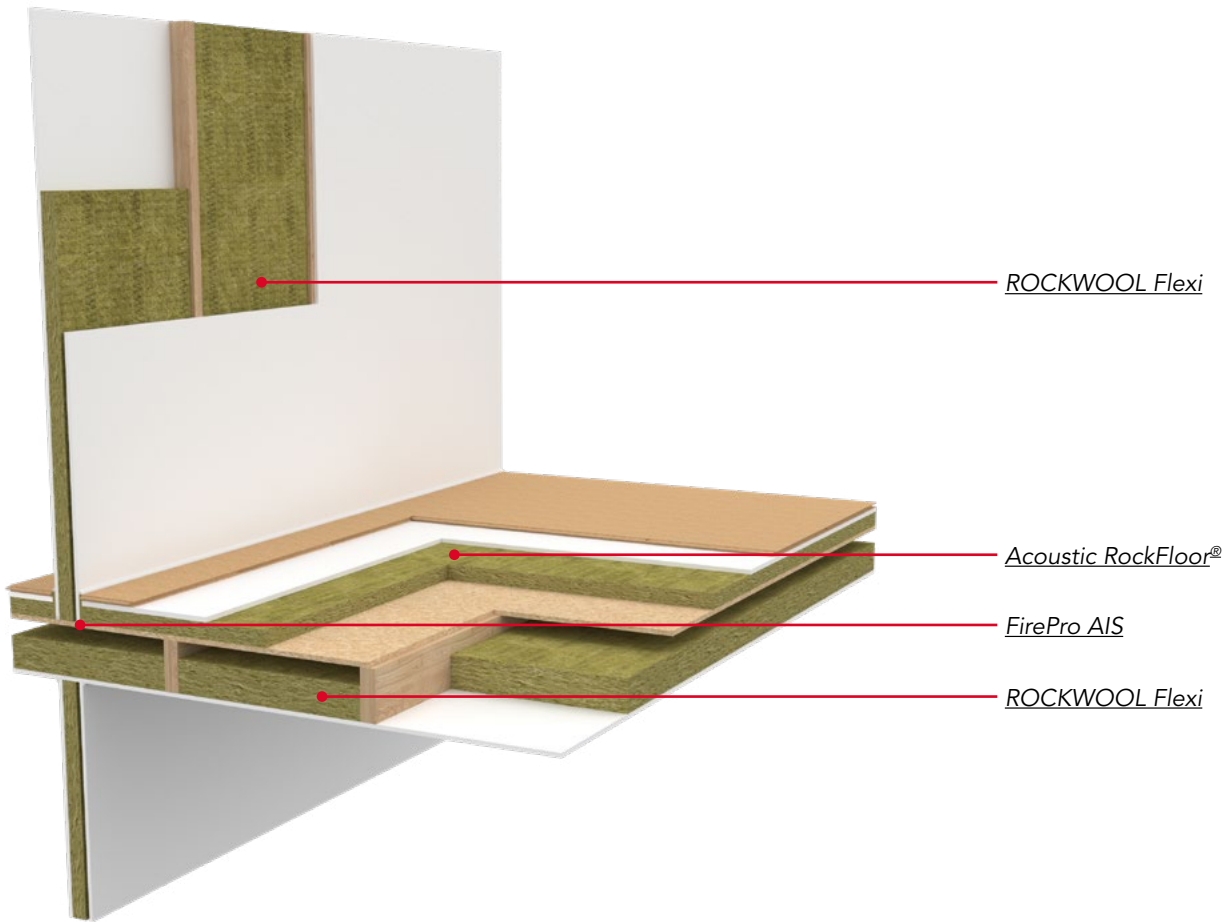


Register for your CPD now at:

rockwool.com/uk/cpd

Separating floors

Acoustic timber



ROCKWOOL Flexi and Acoustic RockFloor can be used in isolation or combined to provide high levels of airborne and impact sound reduction within separating floor structures.

In addition, the combination of the two products provides a non-combustible barrier that can reduce the spread of fire between floors.



ROCKWOOL Flexi achieves Euroclass A1 fire resistance



Example specification	Performance
18mm T&G chipboard	Airborne Sound Reduction RW (C;Ctr) = 66 (-5; 12) dB Impact Sound Reduction $L_{n,w} = 58\text{dB}$
15mm Plasterboard (13kg/m ²)	
30mm Acoustic RockFloor	
15mm OSB	
100mm ROCKWOOL Flexi	
Resilient bars at 400mm centres	
Two layers of 15mm Plasterboard (26/kg/m ²)	

Acoustic timber floor with resilient bars



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
Acoustic RockFloor	✓	Euroclass A1	-	-
ROCKWOOL Flexi	✓	Euroclass A1	-	-

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
<u>Acoustic RockFloor</u>	K11-215, K11-225 K11-235, K11-245 K21-111, K21-115 K21-145, K21-146 M10-290, M13-260	1000	600	25-50
<u>ROCKWOOL Flexi</u>	K11-115, K11-125 K11-135, K11-145 K20-150, K21-120 K21-130, K21-140 P10-240	1200	400 & 600	50-200

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Internal walls and floors

Non-combustible stone insulation proven to reduce noise.

Applying ROCKWOOL stone wool insulation to the core of internal partitions and floors supports the improvement of noise reduction by increasing sound absorption.

As non-combustible insulation, ROCKWOOL internal wall and floor solutions do not contribute to the spread of fire – helping to protect people and property.

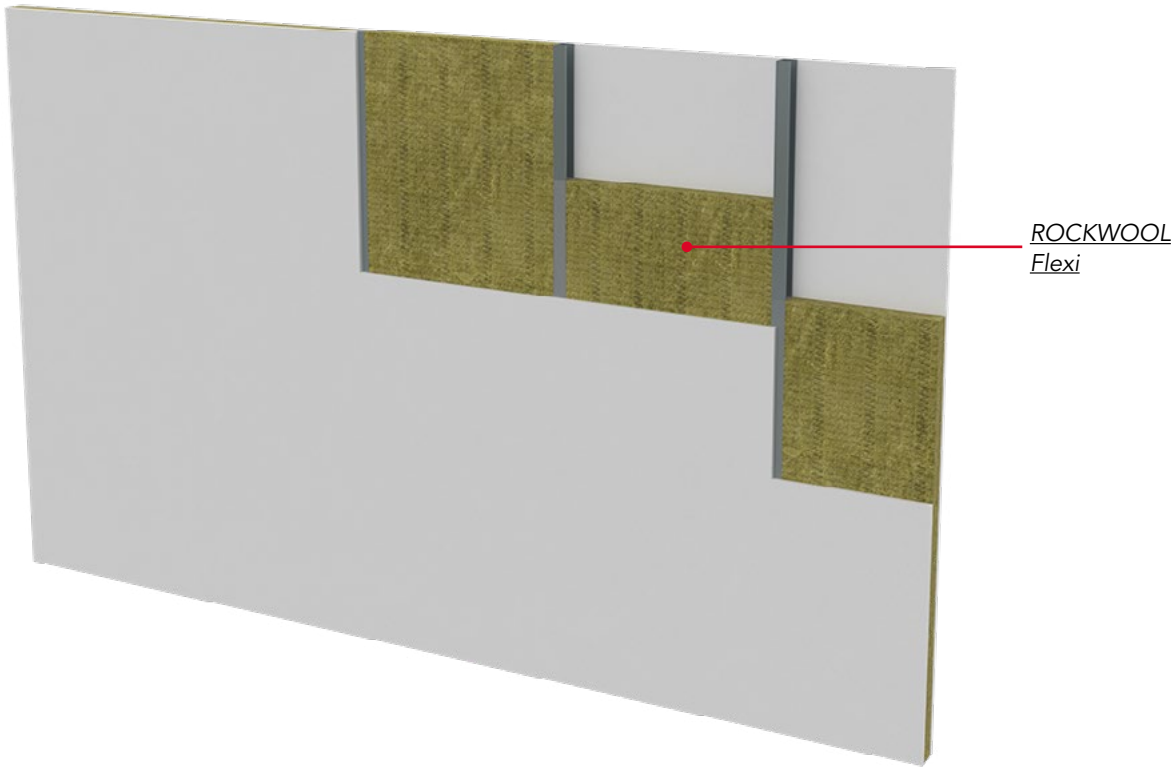
ROCKWOOL internal wall and floor solutions help to protect the integrity of design by minimising the risk of installation error.





Internal walls and floors

Timber and metal stud



ROCKWOOL Flexi delivers acoustic performance due to its density and non-directional fibre orientation which absorbs soundwaves and dampens vibration.

Made from non-combustible stone wool, ROCKWOOL Flexi is capable of withstanding temperatures in excess of 1000°C.



ROCKWOOL Flexi achieves Euroclass A1 fire resistance



Tested solutions

Internal wall (Test report: AIRO L/1944/A/5 (RTP03))	Internal floor (Test report: L03-264)	Performance
75 x 44mm timber stud	18mm T&G chipboard	Sound Reduction R_w 40dB
50mm ROCKWOOL Flexi between studs	100mm ROCKWOOL Flexi between timber joists (400mm centres)	
One layer of 12.5mm standard plasterboard (min 8.4kg/m ²) to each side of the wall	Standard 12.5mm plasterboard (8.4kg/m ²)	



Standards and approvals

Product	CE Marking	Reaction to fire	Fire resistance	3rd party certification
ROCKWOOL Flexi	✓	Euroclass A1	-	-

Product specification

Product	NBS clauses	Length (mm)	Width (mm)	*Approved thickness range (mm)
ROCKWOOL Flexi	K10-115 K10-125 K10-145 K10-155 K10-165 K11-795 K11-796	1200	400 & 600	50-200

*Thickness options may be subject to a minimum production volume.
For further information on our standard thickness range, please visit rockwool.com/uk

Case study

Grange University Hospital Cwmbran

Read full case study [>](#)



Client:
Aneurin Bevan University Health Board

Architect:
BDP

Main contractor:
Laing O'Rourke

Façade contractor:
Central Roofing South Wales Ltd

Merchant:
SIG Bristol



Case study

Cobham Free School Surrey

Read full case study [>](#)



Client:
Cobham Free School

Architect:
Stride Treglown

Main contractor:
Willmott Dixon Construction

Roofing contractor:
Southern Industrial Roofing



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ROCKWOOL supports construction professionals with its e-learning platform

ROCKWOOL Learning simplifies CPD access and tracks personal progression.

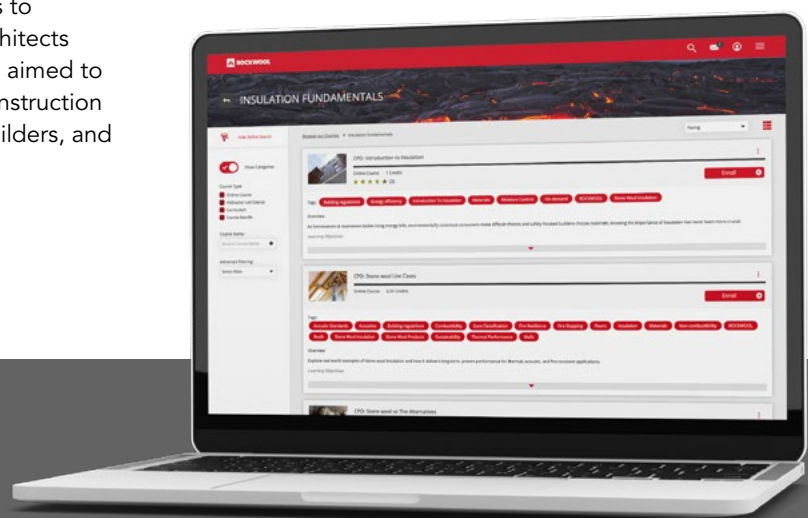
Stone wool insulation manufacturer ROCKWOOL provides valuable technical and specification support with ROCKWOOL Learning, an e-learning platform that makes it easier for construction professionals to access learning resources and track personal development.

Designed for self-guided learning, the platform allows registered users to access experience-appropriate content and complete self-selected modules at their own pace. Learning progress is automatically tracked through the platform, giving users an accurate CPD record and removing the need to manually record the completion of eligible activities.

ROCKWOOL Learning brings together the company's suite of learning and development resources into one place, making these readily accessible at any time of day. The initial launch provided access to instructional and informational content for architects and contractors. Since then, ROCKWOOL has aimed to expand its offering to accommodate other construction stakeholders, including housebuilders, self-builders, and fire or HVAC specialists.

"Best practices and legislation in the construction industry are always evolving, so it's essential for specifiers and contractors to have access to up-to-date development and training opportunities. ROCKWOOL Learning is our latest investment to help enhance the skills and knowledge of those in the industry," said Paul Barrett, Head of Product Management at ROCKWOOL.

"We want to empower industry professionals with the knowledge they need to make informed decisions when it comes to selecting insulation solutions. We will develop the platform with additional courses and training to assist with personal development across an even wider variety of building topics."

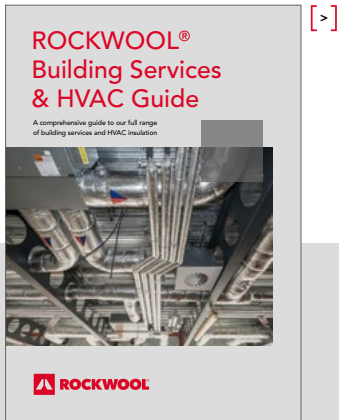


To get started with
ROCKWOOL Learning,
visit the website today:

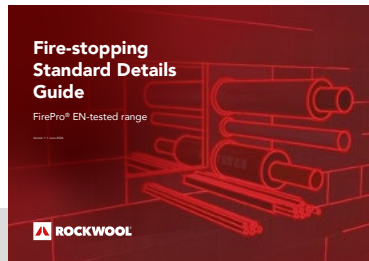
rockwool.com/uk/learning

Additional resources

The ROCKWOOL Red Book is part of a suite of guides. The following are also available to support the specification of ROCKWOOL solutions in HVAC and fire protection applications:



Building Services & HVAC Guide



Fire-stopping Standard Details Guide

All supporting product documentation for solutions detailed in the Red Book is available to download from the ROCKWOOL website, including:

- Product datasheets
- Material safety datasheets
- Brochures
- Reports
- Price lists
- Certificates



SoundPro



Part L Document

Register now at rockwool.com/uk to receive the latest technical updates.

Share your feedback

Is the ROCKWOOL Red Book providing you with the specification support you need?

Let us know how we can improve the content: go.rockwool.com/redbook-feedback



Legal disclaimer

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

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 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

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.

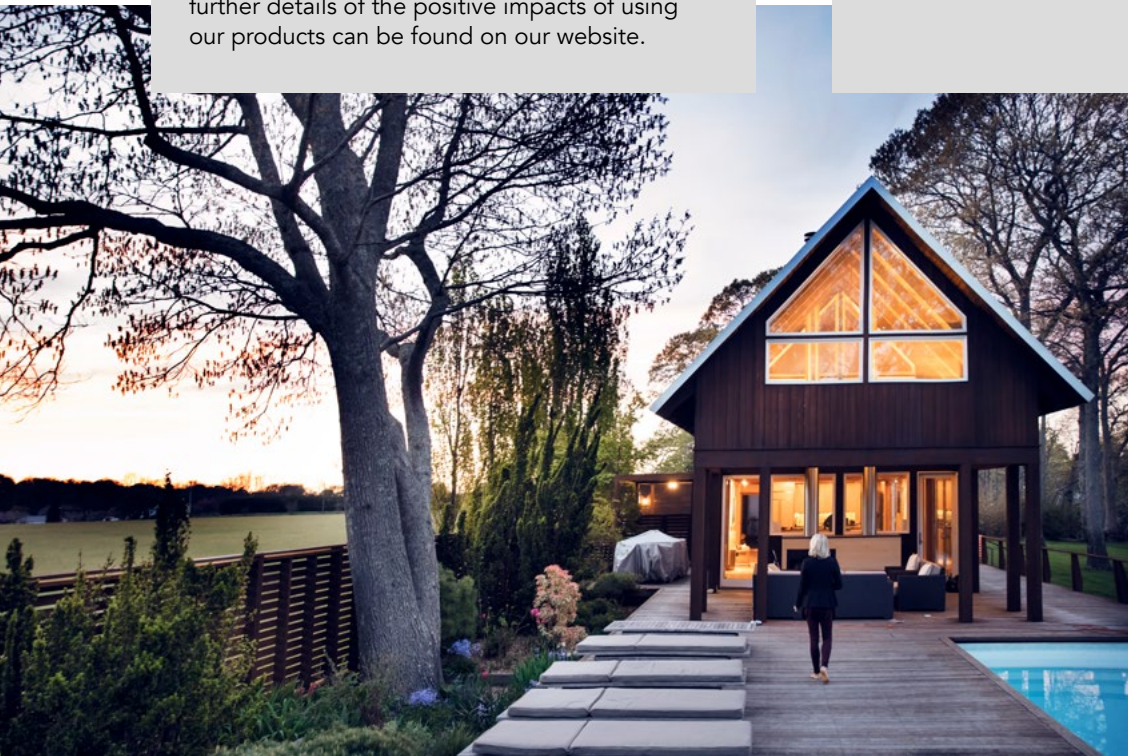


Environment

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).



Company:	ROCKWOOL Limited
Version:	Version 2.11 July 2026 <i>(to check this is the latest version, please refer to rockwool.com/uk)</i>
Revised on:	02.07.2026
Replaces version:	Version 2.10 November 2025
Changes made:	<ul style="list-style-type: none"> • Updated hyperlinks • Updated additional resources
Additional information:	N/A

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

July 2026

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