



# Sound Insulation Slab

Acoustic insulation for internal walls and floors.

ROCKWOOL Sound Insulation Slab has been designed for use within internal and separating walls and floors, helping to reduce noise from adjacent properties, and from other rooms within the same dwelling.

Sound Insulation Slab is made from non-combustible stone wool and is able to resist temperatures of over 1,000°C. Sound Insulation Slab achieves the highest Euroclass A1 non-combustibility classification as defined in EN 13501-1: 2018.

- Provides noise reduction – Quiet Mark™ approved.
- Non-combustible – Euroclass A1 stone wool insulation as defined in EN 13501-1: 2018.
- Includes flexible edge for friction fitting.



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

# Sound Insulation Slab



## APPLICATIONS

Installation of Sound Insulation Slab is supported by the flexible edge which enables friction-fitting without the need for cutting, and without leaving performance sapping gaps. When ROCKWOOL stone wool slabs are tightly joined together, the edges knit together providing a continuous insulating layer of trapped pockets of air with no gaps and no associated loss of thermal performance.\*

\*ROCKWOOL Technical Bulletin 3 – Performance Gap.

# Sound Insulation Slab

## PERFORMANCE

### Building regulations – Acoustics: Approved Document E

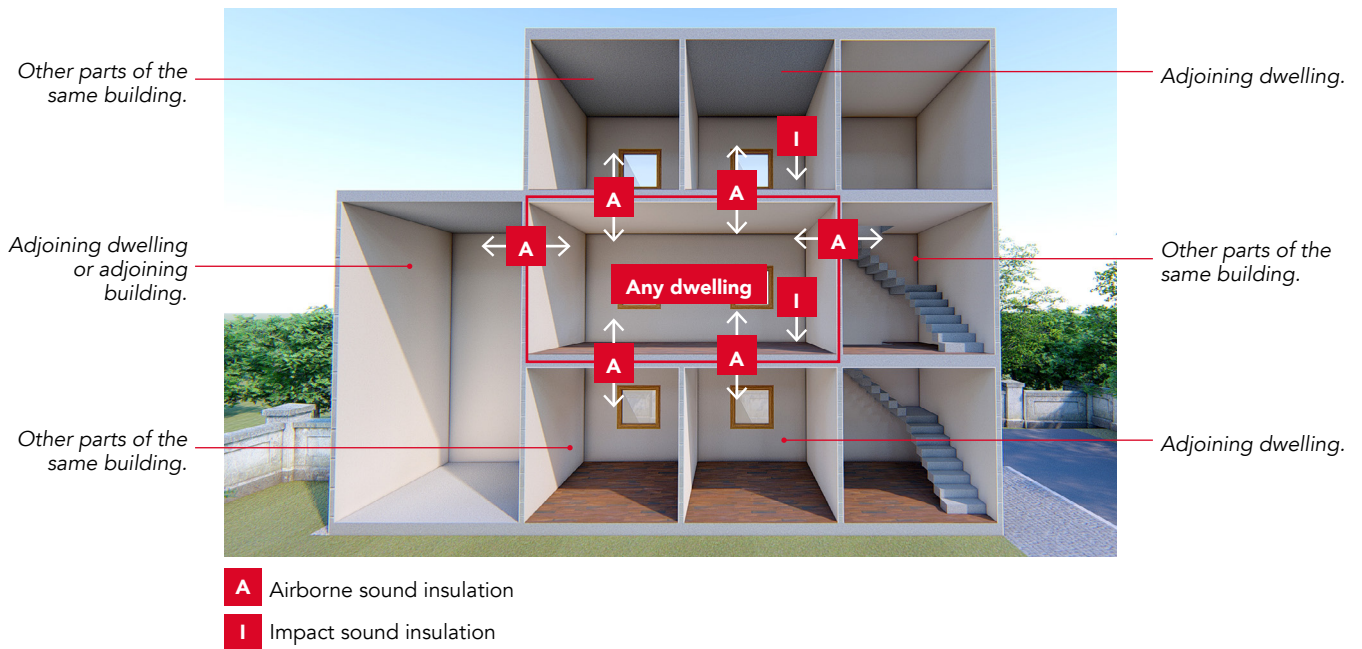
Approved Document E (resistance to the passage of sound) was introduced to the Building Regulations in 2003 and sets out acoustic performance for new build residential housing, schools, and other construction types.

Part E also brought about pre-completion testing. For new buildings, the separating wall build-ups in this section comply with Robust Details, which avoids pre-completion testing, each of these systems carries a robust detail reference.

### Overview of requirements

The diagram below summarises the areas of a building to which the regulations apply.

The minimum required performance standards are outlined in the following tables. The terms  $D_{nT,w}$  and  $L'_{nT,w}$  relate to on-site measurements, and include “flanking transmission”. Also, the corrective term  $C_{tr}$  adjusts for poor performance at lower frequencies. When looking at laboratory-tested  $R_w$  and  $L_{n,w}$  figures, these should offer an approximate improvement over the figures below of at least 15dB to help ensure compliance with on-site testing.



### Minimum requirement for Part E

Separating construction	Airborne sound insulation $D_{nT,w} + C_{tr}$ dB		Impact sound insulation $L'_{nT,w}$ dB	
	New build	Change of use	New build	Change of use
Walls	45 (43*)	45	-	-
Floors & stairs	45	43	62	64

\*Lower limit applies only to 'rooms for residential purposes'.

# Sound Insulation Slab

## Protection against sound within a dwelling-house (England & Wales Only)

Internal walls between a bedroom and other rooms, as well as internal floors, should be designed and constructed to provide a reasonable resistance to sound. The minimum required performance standards are given in terms of laboratory values. Pre-completion site testing is not required.

Note that this requirement does not apply to:

1. Internal walls that contain a door.
2. Internal walls that separate an en-suite from the associated bedroom.
3. Existing walls and floors in a material change of use.

## Performance standards; protection against noise from within the same dwelling:

Element	Airborne sound insulation $R_w$ dB
Walls	40
Floors	40

# Sound Insulation Slab

## Acoustic performance

### Sound Insulation Slab applications

This guide gives an overview of the key constructions for domestic acoustic applications. Where appropriate, references for Robust Details are included, and system performance will meet or exceed those of the building regulations listed above.

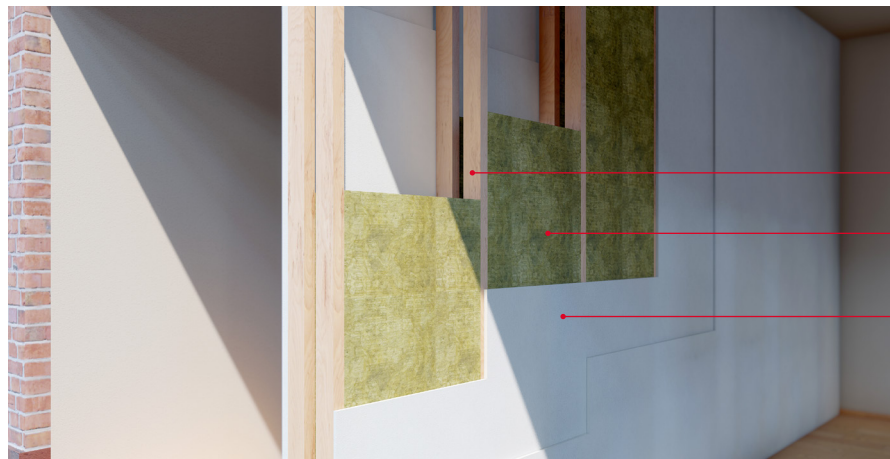
For further information on acoustic regulations, systems, and construction details, download ROCKWOOL SoundPro at [rockwool.com/uk/soundpro](http://rockwool.com/uk/soundpro)

### Separating walls

1. Separating timber framed walls without sheathing – Robust Details reference – E-WT-1
  - Without sheathing boards
  - Twin timber frames
2. Separating timber framed walls with sheathing – Robust Details reference - E-WT-2
  - With sheathing boards
  - Twin timber frames

#### Construction details:

- Wall width: Min. 240mm between inner faces of wall linings and a 50mm gap between the two frames.
- Wall lining: 2 or more layers of gypsum based board (total nominal mass per unit area 22kg/m<sup>2</sup>) both sides.
- Sound Insulation Slab: 70mm in both wall frames.
- Max. height: 3 metres.



Twin timber studs.

70mm Sound Insulation Slab.

Two layers gypsum based board (22kg/m<sup>3</sup> per side).

### Minimum system performance

Airborne noise reduction (dB)

45

# Sound Insulation Slab

## Thermal performance

### Party wall thermal bypass – achieving zero U-value heat loss

Approved Documents L1A & L2A of England and Wales's Building standards recognise that where party cavity walls between connected buildings are untreated, considerable heat can escape through them.

A key feature of the SAP calculation is that party wall cavities should have a zero heat loss (U-value 0.0W/m<sup>2</sup>K). If these cavities are left unfilled and unsealed, a U-value of 0.5W/m<sup>2</sup>K will automatically be applied, making it extremely difficult to meet the TER compliance.

The following table shows the different constructions and the resulting U-values:

Party wall construction	U-value W/m <sup>2</sup> K
Solid	0.00
Unfilled cavity with no effective edge sealing	0.50
Unfilled cavity with effective edge sealing around all exposed edges and in line with insulation layers in abutting elements	0.20
Fully filled cavity with effective edge sealing around all exposed edges and in line with the insulation layers in abutting elements	0.00



## Minimum system performance

Airborne noise reduction (dB)
45

# Sound Insulation Slab

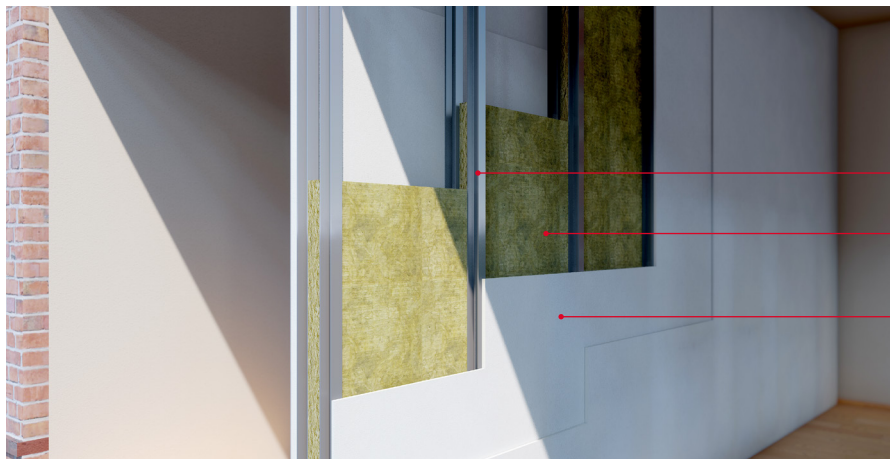
## 3. Separating steel framed walls – Robust Details reference – E-WS-1

Twin metal frames for use in lightweight steel frame houses and flats/apartments.

### Construction details:

- Wall width: Min. 200mm between inner faces of wall linings.
- Wall lining: 2 or more layers of gypsum based board (total nominal mass per unit area 22kg/m<sup>2</sup>) both sides.
- Sound Insulation Slab: Min. 50mm fully filling the cavity between frames (this thickness will vary pending as built cavity width).
- Max. height: 3 metres.

Note: The steel frame profiles shown are indicative only. Other profiles are acceptable.



Twin metal studs.

70mm Sound Insulation Slab.

Two layers gypsum based board (22kg/m<sup>2</sup> per side).

### Minimum system performance

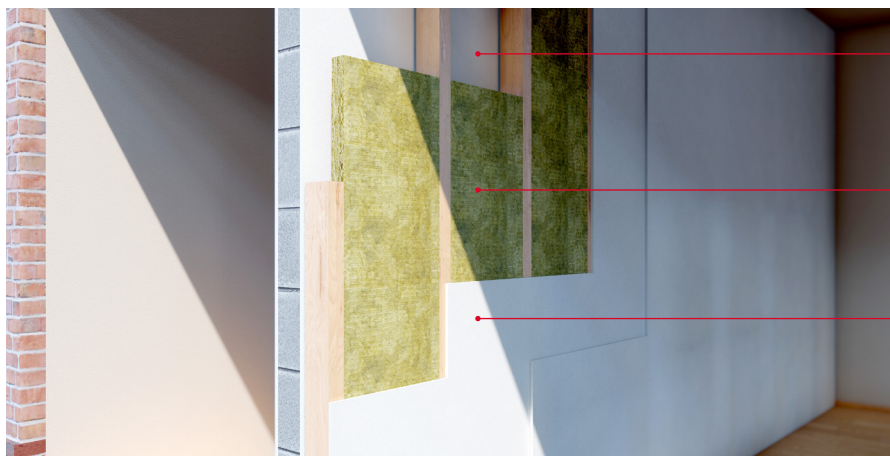
Airborne noise reduction (dB)

45

## 4. 'Change of use' separating wall – Independent panel to existing masonry wall

### Construction details:

- Existing masonry: if at least 100mm and plastered both sides, apply one side only. Otherwise, apply both sides.
- Two layers of board Min. 20kg/m<sup>2</sup>, e.g. 2 x 12.5mm acoustic plasterboard.
- Supporting timber or metal framework set Min. 10mm away from face of existing masonry.
- Sound Insulation Slab 50mm within frame.



Existing masonry.

50mm Sound Insulation Slab.

Two layers gypsum based board (total 20kg/m<sup>2</sup>).

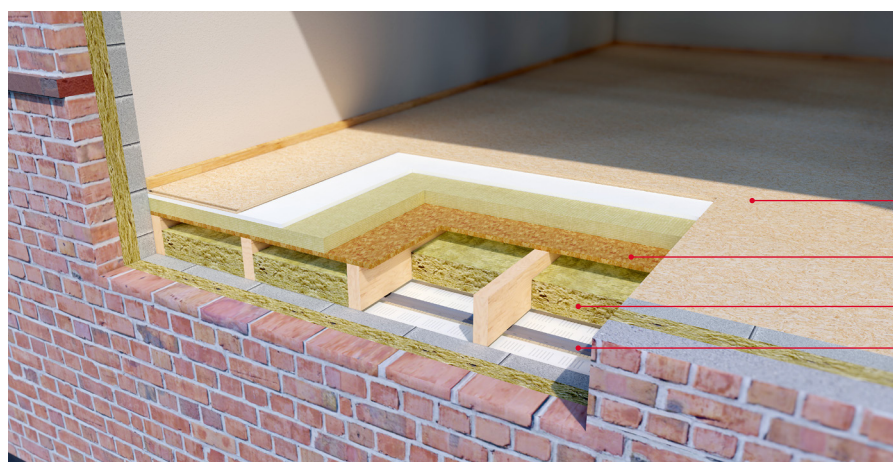
# Sound Insulation Slab

## Separating floors

### 5. New build separating timber floors

#### Construction details:

- 18mm of tongue and groove flooring grade chipboard.
- 15mm acoustic rated plasterboard with a minimum mass of 12.5kg/m<sup>2</sup> mass per unit area.
- 50mm of ROCKWOOL RockFloor® resilient layer.
- 15mm of OSB on 200mm × 50mm timber joists at 400mm centres.
- 100mm of Sound Insulation Slab between joists.
- Resilient bars fixed at right angles to joists at 400mm centres.
- Ceiling finish: 2 layers of 15mm acoustic rated plasterboard (26kg/m<sup>2</sup>).
- Pre-completion site testing required on site.



- 18mm of tongue and groove flooring grade chipboard.
- 50mm Acoustic RockFloor.
- 100mm Sound Insulation Slab.
- Resilient bars.

#### Minimum system performance

Airborne noise reduction (dB)	Impact noise reduction (dB)
45	62

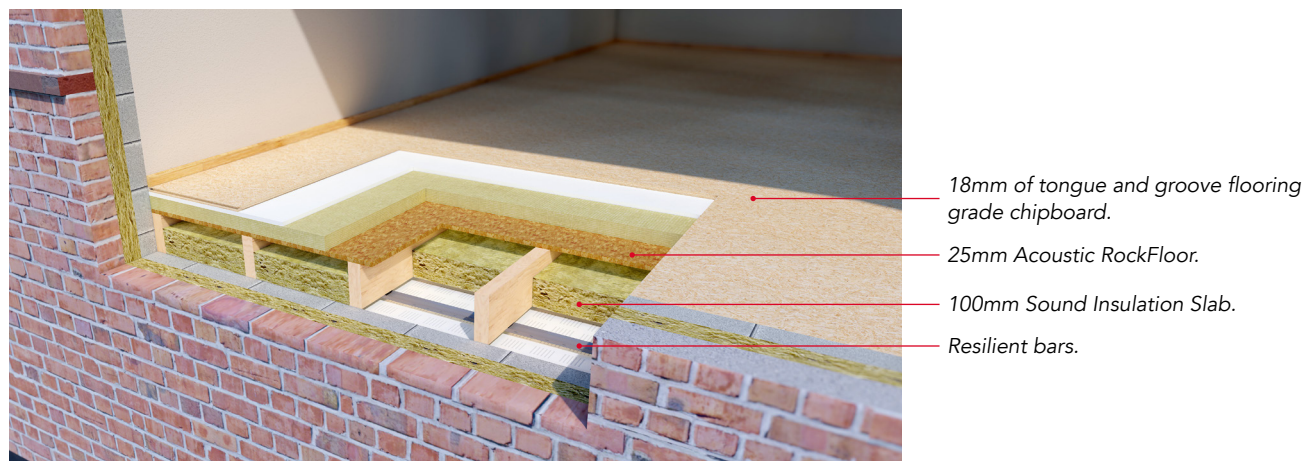
# Sound Insulation Slab

## 6. Separating floors (material change of use) ADE Section 4

ADE Construction guidance specifications for material change of use separating timber floor treatment 2: Platform floor with absorbent material.

### Construction details:

- Min. 2 layers of board material to provide a total mass of 25kg/m<sup>2</sup>, spot bonded together with joints staggered (e.g. 18mm of tongue and groove flooring grade chipboard and 19mm of plasterboard plank).
- 25mm Min. ROCKWOOL RockFloor resilient layer.
- The floating layer to be loose laid over the RockFloor.
- Existing floor deck on existing timber floor joists.
- 100mm of Sound Insulation Slab.
- Existing ceiling should be upgraded to 20kg/m<sup>2</sup>. If the existing ceiling is of lath and plaster it should be retained, providing it satisfies Part B - Fire Safety (if in doubt, underdraw the ceiling with an extra layer of 12.5mm fire rated plasterboard and screw into the joists).
- Pre-completion site testing.



### Minimum system performance

Airborne noise reduction (dB)	Impact noise reduction (dB)
43	64

# Sound Insulation Slab

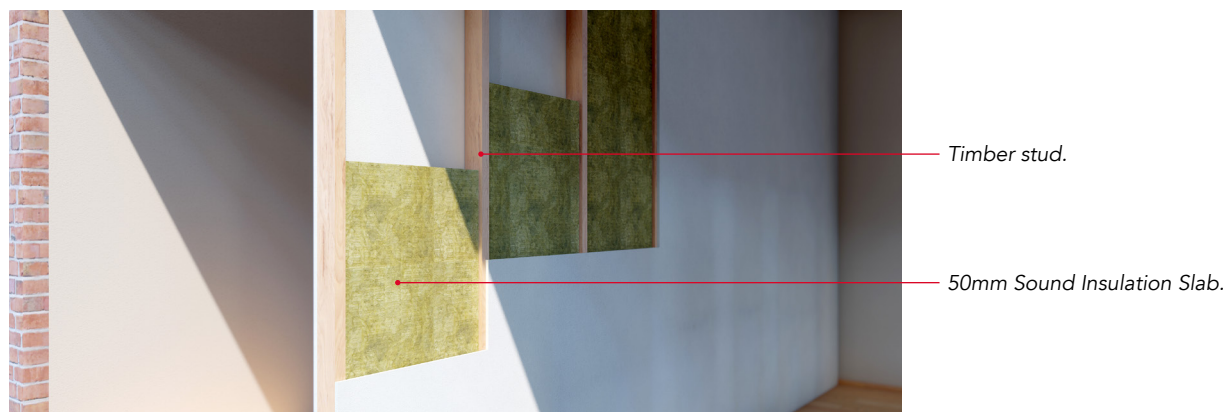
## Internal walls

### 7. Internal walls – timber stud partition

Sound Insulation Slab will provide both acoustic and fire benefits when used in partitions.

#### Construction details:

- Studs: 38mm ×75mm timber studs at 600mm centres.
- Facings: 1 layer 12.5mm acoustic rated plasterboard (11kg/m<sup>2</sup>) each side.
- Insulation: Min. 50mm of Sound Insulation Slab.
- Max. height: 3 metres.



#### Minimum system performance

Airborne noise reduction (dB)
40

### 8. Internal walls – metal stud partition

#### Construction details:

- Studs: 50mm metal studs at 600mm centres.
- Facings: 1 layer of 12.5mm standard plasterboard (8kg/m<sup>2</sup>) each side.
- Insulation: Min. 50mm of Sound Insulation Slab.
- Max. height: 2.5 metres.



#### Minimum system performance

Airborne noise reduction (dB)
41

# Sound Insulation Slab

## Internal floors

ROCKWOOL systems for compliance with Approved Document E Section 5 – internal floors, within the same dwelling to meet part E2:  $R_w$  40dB.

### 9. Timber joist internal floor

#### Construction details:

- 18mm of tongue and groove flooring grade chipboard with a mass per unit area of  $12.4\text{kg/m}^2$ .
- Timber joists at 400mm centres.
- 100mm of Sound Insulation Slab between joists.
- A single layer of standard 12.5mm plasterboard ceiling with a mass per unit area of  $8\text{kg/m}^2$ .



100mm Sound Insulation Slab.

Timber joists.

#### Minimum system performance

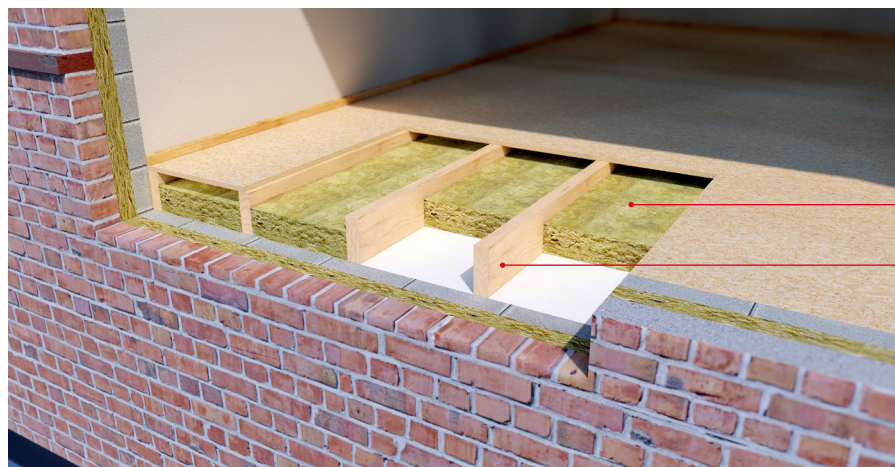
Airborne noise reduction (dB)

40

### 10. Metal joist internal floor

#### Construction details:

- Metal floor joists at 400mm centres.
- Timber floor minimum mass per unit area  $15\text{ kg/m}^2$  (e.g. 22mm chipboard).
- Single layer plasterboard, minimum mass per unit area  $10\text{ kg/m}^2$  (e.g. 15mm standard plasterboard).
- Min. 100mm Sound Insulation Slab between joists.



100mm Sound Insulation Slab.

Metal joists.

#### Minimum system performance

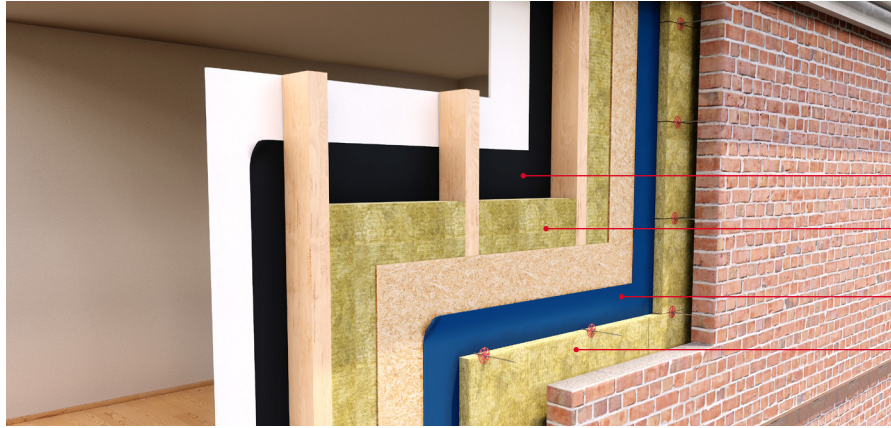
Airborne noise reduction (dB)

40

# Sound Insulation Slab

## 11. Timber frame warm/hybrid frame construction

Warm/hybrid timber frame cavity wall with Sound Insulation Slab between studs and 50mm ROCKWOOL RainScreen Duo Slab®, fixed to face of OSB over breather membrane.



Vapour control layer.

Sound Insulation Slab.

Breather membrane.

Sound Insulation Slab.

Construction 3 warm/hybrid timber frame – No service void (Standard BM & VCL)

U-value (W/m <sup>2</sup> K)	RainScreen Duo Slab over OSB (mm)	Sound Insulation Slab in frame (mm)	Stud depth (mm)
0.19	50	140	140

Note: The U-values shown in table 3 above can be further enhanced upon by the inclusion of a service void.

## TECHNICAL INFORMATION

### Durability

Tests of our stone wool recovered from old buildings have shown that it 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 showed that these characteristics had not diminished after 65 years.\*

\*Testing done at Danish Technical Institute (DTI) in 2023, "Testing ROCKWOOL insulation from CPH airport hangar 4".

### Water resistance and moisture

ROCKWOOL stone wool insulation is water repellent and non-hygroscopic, meaning it will not absorb water from the surrounding environment. It retains its thermal performance even in humid conditions, helping to support the durability of the building fabric.

## PRODUCT INFORMATION

Thickness (mm)	Width (mm)	Length (mm)	Slabs per pack	Coverage per pack (m <sup>2</sup> )
50	600	1200	12	8.64
50	400	1200	12	5.76
70	600	1200	8	5.76
100	600	1200	6	4.32
100	400	1200	6	2.88
140	600	1200	4	2.88

# Sound Insulation Slab

## BUILDING SAFETY AND PRODUCT USE

### 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.

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#### The ROCKWOOL Trademark

ROCKWOOL® – our trademark

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

The ROCKWOOL trademark is one of the most important assets of the ROCKWOOL Group, and is therefore well-protected and defended by ROCKWOOL throughout the world.

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

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

#### Trademarks

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

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

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

### HEALTH & SAFETY

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

# Sound Insulation Slab

Company:	ROCKWOOL Limited
Version:	Version 2.02 March 2026 (to check this is the latest version, please refer to <a href="http://rockwool.com/uk">rockwool.com/uk</a> )
Revised on:	05.03.2026
Product name:	Sound Insulation Slab
Replaces version:	Version 2.01 January 2026
Changes made:	<ul style="list-style-type: none"><li>• Updated testing information</li></ul>
Additional information:	

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

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

# Sound Insulation Slab

## 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](#).



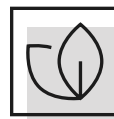
### Sustainability

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).

