



RW Slabs

(RWA45, RW3, RW4, RW5 & RW6)

Versatile insulation slabs for a wide range of building applications

ROCKWOOL RW Slabs can be applied to an array of general building applications for acoustic, thermal and fire protection of walls, ceilings, floors and roofs.

Available in range of thicknesses and densities from 45 to 140 kg/m³, the slabs can also be black or white tissue faced, or foil faced, to one or both sides (subject to production compatibility).

- Designed to provide multiple thermal and acoustic solutions
- Suitable for a wide range of general building applications
- Non-combustible – Euroclass A1 classification as defined in EN 13501-1
- Availability in a range of thicknesses and densities
- Black or white tissue, and aluminium foil facings available on request*

*Subject to production compatibility and minimum order quantity.



ROCKWOOL RW semi-rigid and rigid slabs are high quality resin bonded stone wool slabs that can be used in general building applications.

ROCKWOOL stone wool insulation is sound absorbing by nature, and can be used to significantly reduce the noise transmission into a building and between the indoor spaces.

RW Slabs



Figure 1 - ROCKWOOL RWA45

APPLICATIONS

ROCKWOOL RW Slabs can be used for a wide range of applications for partitions and ceilings, as well as thermal insulation for floors, walls, and roof.

RW Slabs

PERFORMANCE

Thermal performance

ROCKWOOL RW Slab products achieves a thermal conductivity lambda (λ) value as low as 0.034 W/mK.

| Product | Nominal density (kg/m ³) | Thermal conductivity | Dimensions (mm) |
|---------|--------------------------------------|----------------------|-----------------|
| RWA45 | 45 | 0.035 W/mK | 1200 x 600* |
| RW3 | 60 | 0.034 W/mK | 1200 x 600* |
| RW4 | 80 | 0.034 W/mK | 1200 x 600* |
| RW5 | 100 | 0.034 W/mK | 1200 x 600* |
| RW6 | 140 | 0.035 W/mK | 1200 x 600* |

* Faced slabs come in 1000 x 600mm dimensions.

Fire performance

ROCKWOOL RW Slabs are non-combustible achieving a reaction to fire classification of A1, as defined in EN13501-1.

Acoustic performance

The non-directional fibre orientation and density of stone wool means that sound waves are trapped, and vibrations dampened which can significantly reduce outside sources of noise when used in an external wall.

ROCKWOOL insulation retains its shape and thickness for the lifetime of the building, which means it performs acoustically decade after decade.

Facings

RW Slabs are available with a number of facing options to one or both sides of the slab, subject to production compatibility and minimum order quantities.

These options are:

- Non-woven mineral black tissue (60gsm)
- Non-woven mineral white tissue (100gsm)
- Aluminium foil

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INTERNAL PARTITIONS

Dwellings

In England and Wales, Approved Document E requires all internal walls between a bedroom or room containing a WC and another room to have a minimum sound insulation of 40 Rw dB. This applies to new walls built both in dwellings formed by a material change of use and new build extensions of existing dwellings. (For Scotland, the minimum sound insulation requirement is 43 Rw dB).

Schools

Specific performance standards are set for airborne sound insulation between spaces by Building Bulletin 93 (December 2014) 'The Acoustic Design of Schools'. This classifies each room for the purpose of airborne sound insulation by its activity purpose and sets the minimum sound insulation performance standards for each partition.

Hospitals

Similar to schools, the Healthcare Technical Manuals HTM 08-01 (previously HTM 2045) sets standards for privacy according to room type and from this the specific performance requirement for any partition can be obtained.

Fire performance requirements for internal partitions

Generally, fire performance of partitions will be determined in line with the appropriate Building Regulations. In certain buildings there may be specific fire performance requirements for partitions separating specific room types, for example in Hospitals where this is set by Firecode HTM 05-02 and Building Bulletin 100 Design for fire safety in schools.

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ACOUSTIC SOLUTIONS

Steel frame party walls

Typical Twin light steel frame construction

Two separate steel frame walls are constructed. Minimum 60mm RWA45 slabs are slotted into the cavity between the two steel frames and butt jointed. (Actual thickness of insulation will be determined by the as built cavity width between each frame).

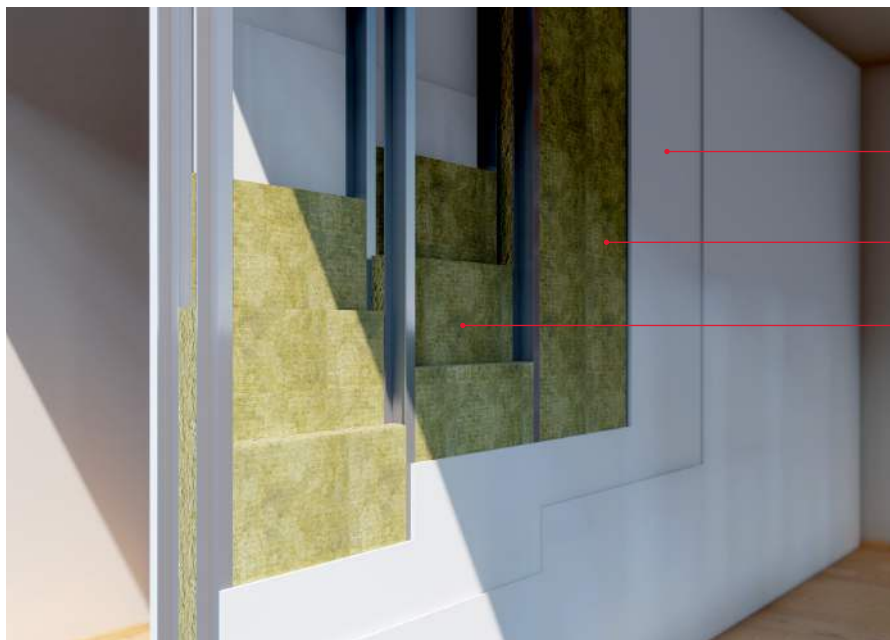
Fully fill the depth of the frame on both sides with 75mm RWA45 slabs, (or thickness to suit stud depth) with no gaps between the insulation slabs.

Wall linings: 2 layers of gypsum plasterboard each side of the party wall, with all joints staggered, to provide a total nominal mass per unit area of 22kg/m² both sides. A minimum width of 200mm is required between the inner faces of plasterboard lining.

Seal all joints in outer leaf with Joint Tape or caulk sealant.

NOTE: This wall construction requires pre-completion testing.

To meet fire, acoustic and thermal regulations cavity barriers must be installed at the interface junction between the steel frame party wall with the external cavity wall. (For further information, please refer to the ROCKWOOL Cavity Barrier data sheet).



2 layers of plasterboard
(total mass of 22kg/m²)

RWA45 75mm (or thickness to fill stud)

RWA45 60mm in cavity

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INTERNAL METAL STUD PARTITION WALLS

1. Lightweight 50mm metal partition - Rw 41dB



- Studs:** 50mm metal 'C' studs at 600mm Centres
Facings: 1 layer of 12.5mm standard plasterboard (total mass per unit area 8.0kg/m² each side)
Insulation: 30mm ROCKWOOL RW3 slab

| Results | |
|--------------------------|---------------------|
| Weighted sound reduction | Rw 41dB |
| Fire resistance | 30 minutes |
| Maximum height | 2.5 metres |
| Nominal wall thickness | 75mm |
| Approx. weight | 18kg/m ² |

This ROCKWOOL solution exceeds the minimum requirements of the Approved Document E for a Rw 40dB internal wall partition in dwellings.

2. Lightweight 50mm metal partition - Rw 43dB



- Studs:** 50mm metal 'C' studs at 600mm Centres
Facings: 1 layer of 12.5mm standard plasterboard (total mass per unit area 8.0kg/m² each side)
Insulation: 30mm ROCKWOOL RW3 slab

| Results | |
|--------------------------|---------------------|
| Weighted sound reduction | Rw 43dB |
| Fire resistance | 30 minutes |
| Maximum height | 2.5 metres |
| Nominal wall thickness | 75mm |
| Approx. weight | 22kg/m ² |

This ROCKWOOL solution also meets the minimum requirements for a Rw 43dB as required by Section 5 of the Scottish Technical Standards for internal wall partition in dwellings.

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3. Lightweight 70mm metal partition - Rw 44dB



- Studs:** 70mm metal 'C' studs at 600mm Centres
Facings: 1 layer of 12.5mm standard plasterboard (total mass per unit area 8.0kg/m² each side)
Insulation: 30mm ROCKWOOL RW3 slab

| Results | |
|--------------------------|---------------------|
| Weighted sound reduction | Rw 44dB |
| Fire resistance | 30 minutes |
| Maximum height | 3.6 metres |
| Nominal wall thickness | 95mm |
| Approx. weight | 19kg/m ² |

This ROCKWOOL solution is suited to general offices and other general purpose uses.

4. Lightweight 70mm metal partition - Rw 50dB



- Studs:** 70mm metal 'C' studs at 600mm Centres
Facings: 2 layers of 12.5mm standard plasterboard (total mass per unit area 16.0kg/m² each side)
Insulation: 50mm ROCKWOOL RWA45 slab

| Results | |
|--------------------------|---------------------|
| Weighted sound reduction | Rw 50dB |
| Fire resistance | 60 minutes |
| Maximum height | 4.6 metres |
| Nominal wall thickness | 120mm |
| Approx. weight | 36kg/m ² |

This ROCKWOOL solution is suited to board rooms, offices and classrooms etc.

5. Lightweight 70mm metal partition - Rw 55dB



- Studs:** 70mm metal 'C' studs at 600mm Centres
Facings: 2 layers of 12.5mm standard plasterboard (total mass per unit area 20.0kg/m² each side)
Insulation: 50mm ROCKWOOL RWA45 slab

| Results | |
|--------------------------|---------------------|
| Weighted sound reduction | Rw 55dB |
| Fire resistance | 60 minutes |
| Maximum height | 4.6 metres |
| Nominal wall thickness | 120mm |
| Approx. weight | 43kg/m ² |

This ROCKWOOL solution is suited to board rooms, offices and classrooms etc.

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ACOUSTIC UPGRADE OF EXISTING SOLID MASONRY WALL TO PARTY WALL STANDARD

If the existing masonry wall is not plastered or is less than 100mm thick then independent panels should be applied to both sides.

Seal all gaps at the perimeter of the plasterboard lining and where services, such as electrical sockets, penetrate the plasterboard with ROCKWOOL Intumescent Acoustic sealant.

This solution is only suitable for refurbishment work and will require pre-completion testing to show compliance with Building Regulation requirements.



- Existing wall:** Min.100mm existing solid masonry wall plastered on both faces
- Studs:** Independent 50mm metal 'C' studs (leaving a minimum 10mm air space between the back of the stud and the existing wall)
- Insulation:** Min. 40mm ROCKWOOL RWA45 slab between studs
- Facings:** 2 layers of 12.5mm standard plasterboard (8.2kg/m² per board) with staggered joints between boards.
- Finishes:** Plaster skim coat
- Total mass per unit area, excluding framework:** 20.0kg/m²

This ROCKWOOL solution meets the requirements of ADE Section 4 'Material change of use' Wall treatment 1.

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PRODUCT INFORMATION

| Product | Width (mm) | Length (mm) | Thickness (mm) |
|---------|------------|-------------|----------------|
| RWA45 | 600 | 1200 | 25 - 230 |
| RW3 | 600 | 1200 | 25 - 200 |
| RW4 | 600 | 1200 | 25 - 250 |
| RW5 | 600 | 1200 | 25 - 200 |
| RW6 | 600 | 1200 | 30 - 120 |

*Faced options are available upon request and subject to production compatibility. Thickness options may be subject to a minimum production volume. Speak to the specification team for guidance.

ADDITIONAL INFORMATION

Durability

ROCKWOOL stone wool is durable by nature. Sample testing from existing buildings shows that ROCKWOOL stone wool retains its performance for at least 65 years* without being affected by compression or temperature and humidity changes.

*FIW, *Durability Project Mineral Wool (2016)*.

Condensation

ROCKWOOL stone wool insulation allows the construction to breathe, reducing the risk of condensation, which can lead to rot, mould and humidity damage.

STANDARDS AND APPROVALS

| Certificate |
|---|
| ROCKWOOL RW Slabs satisfy the requirements of BS EN 13162 "Thermal insulation products for buildings. Factory made mineral wool (MW) products". |
| Manufactured under ISO 14001 Environmental Management Systems, and ISO 9001 Quality Management Systems. |



INSTALLATION

The product must be installed in accordance with the current ROCKWOOL guidelines. For further information please visit www.rockwool.com/uk or contact our Technical Solutions Team on 01656 868490.

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:

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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](#).



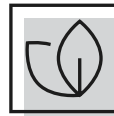
Sustainability

ROCKWOOL products are used to enrich modern living, creating safer, healthier and more climate-resilient communities.

We transform abundant, natural volcanic rock into stone wool insulation products that are used to reduce energy demand, lower fuel bills and help address society's climate change challenges.

ROCKWOOL stone wool insulation is recyclable and can be transformed into new ROCKWOOL products. Please contact us for details of how we can work together to recycle waste ROCKWOOL stone wool material that may be generated during on-site installation.

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).

