RW Semi-Rigid and Rigid Slabs

Tools required

- Serrated insulation saw
- Tape measure

Fixing and application

Preparation

- Clean and prepare the area for installation. Carry out a pre-work safety check, identifying any potential hazards such as ease of access, work heights, trip hazards, and electrical safety. Check the construction ensuring it is structurally sound and free from defects such as corrosion, splitting, cracking and look for signs of leaks and moisture which can cause rot and mould. Ventilate the area if possible. Clear space to hold the insulation, if installing into floors below, or in a loft, use a kneel board and protective knee pads. When installing overhead wear protective eyewear. If installing into spaces higher up, out of reach, it is recommended this is done from a suitable structure such as scaffolding, rather than a step ladder, so that both hands can be used to safely fit the insulation.
- Assemble tools such an insulation saw, tape measure and PPE (personal protective equipment) such as gloves, long sleeves, mask if working in an unventilated area, and eye protection when working overhead. Refer to the EURIMA health and safety guidelines for guidance on suitable PPE.

Measuring and cutting

- Using a tape measure, measure the internal aperture of the frame, rafter or joist you are fitting the insulation into. Note that frame centre measurements (i.e. 400mm or 600mm) include the thickness of the stud or joist, and that they may not always be consistent, so it is best to measure the internal aperture accurately to ensure the best possible fit, particularly when installing into older structures.
- Use an insulation saw, or knife with a serrated blade, for cutting the insulation to size. Do not over cut the insulation. Allow an extra 10mm on both dimensions (width and length) of the insulation, over and above the aperture dimensions.

Health & safety

The mechanical effect of fibres in contact with skin may cause temporary itching.

Cover exposed skin

When working in unventilated area wear disposable face mask.

Clean area using vacuum equipment.

Waste should be disposed of according to local regulations.

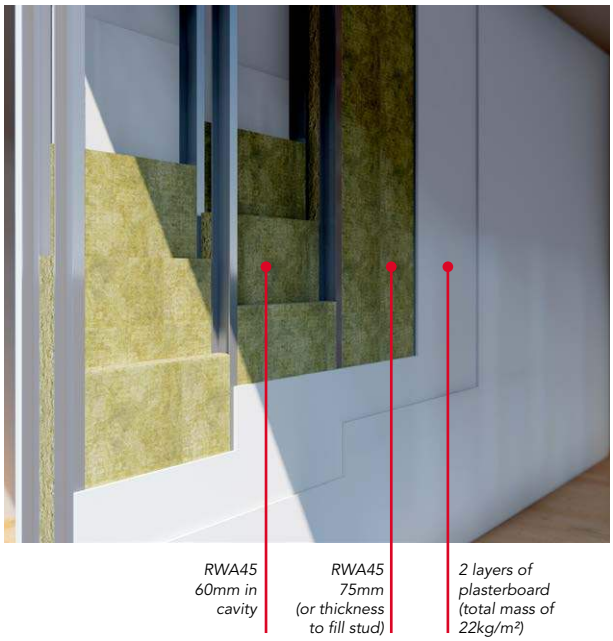
Rinse in cold water before washing.

Ventilate working area if possible.

Wear goggles when working overhead.

Installation

- The density and dimensional stability of ROCKWOOL stone wool allows a tight friction fit. It will not require pinning or fixings. To install, simply push the slab in one side of the structure and let the insulation go so it tightly butts into the other side and holds in place.
- Ensure there are no visible gaps, as this will negatively affect the installed performance.



Construction and Design Details

Walls - steel frame party wall

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).

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/m²

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

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/m²

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.

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/m²

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

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/m²

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

Lightweight 70mm metal partition - Rw 55dB

Studs: 70mm metal 'C 'studs at 600mm Centres

Facings: 2 layers of 12.5mm acoustic plasterboard (total mass per unit area 20.0kg/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	43kg/m²

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

Acoustic upgrade of existing solid masonry wall to party wall standard

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

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

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.