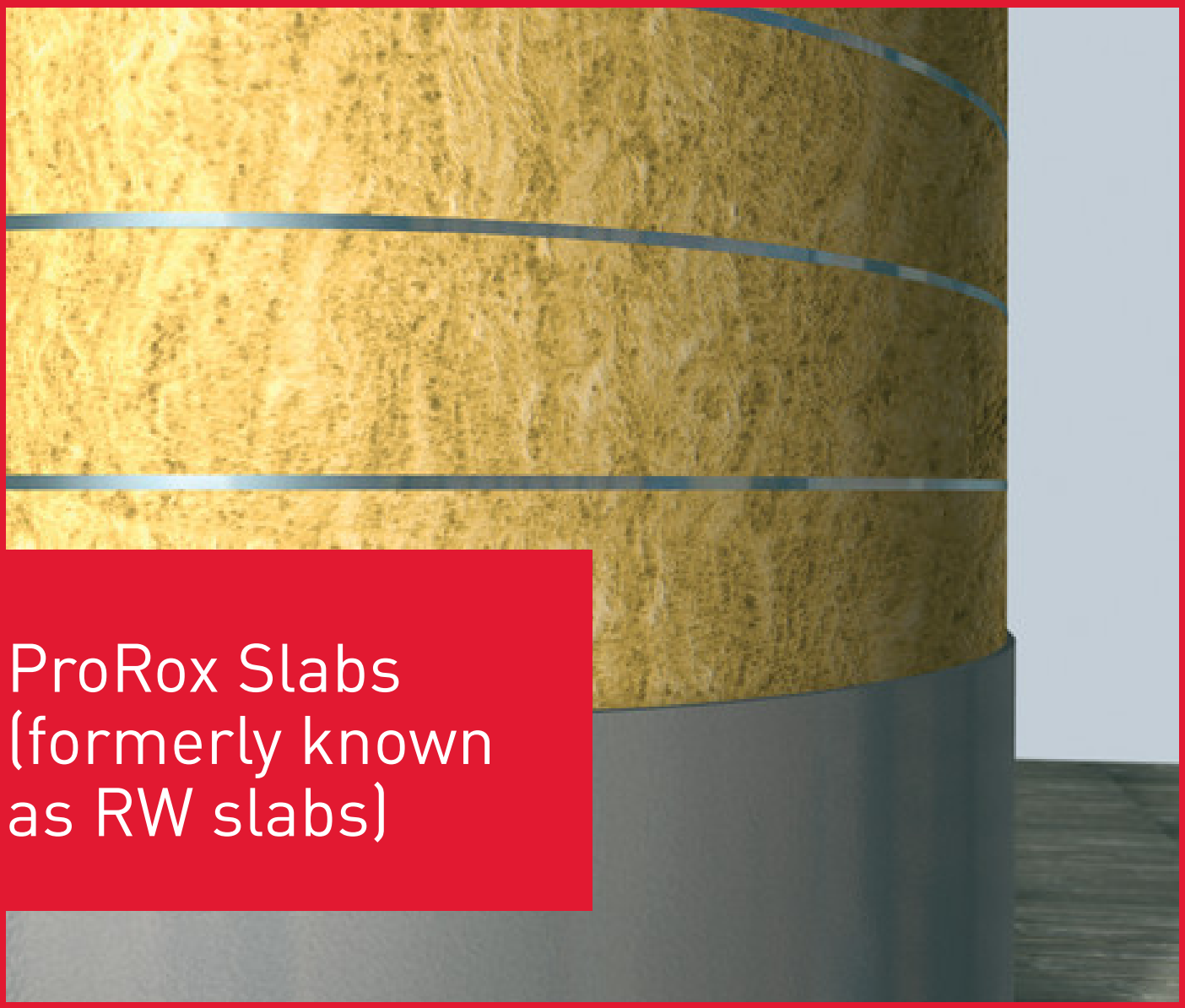


ProRox Slabs (formerly known as RW slabs)

Versatile thermal acoustic insulation slabs

ROCKWOOL's ProRox Slabs are high quality resin bonded slabs that can be used for thermal, acoustic and fire insulation.

They are manufactured in a variety of thicknesses and densities to suit most requirements and CE marked to 2 standards: EN 13162 and EN 14303.

The following NBS Plus clauses include Rigid, Semi-rigid and Flexible slabs: H31:234, 254, H43:234, H51:110, K11:60, 795, K12:110, 150, 250, 255, P10:140, 145, 170, 180, 181, 210, 217, 230, 240, 250

ProRox Slabs

They are suitable for many applications including thermal insulation for floors,walls, roofs and boiler rooms. Ventilation plant in all types of buildings, offshore platforms and ships, acoustic ceilings and partition panels. As well as oil, petrochem and power generation applications (for more details visit: www.rockwool-rti.co.uk).

Advantages

- Excellent thermal, acoustic and fire insulation
- CE marked to 2 standards: EN 13162 and EN 14303
- Water repellent
- Resists high temperatures
- Easy to handle and install
- Cost effective
- No maintenance
- Black or white tissue and aluminium foil facings available

Description, performance and properties

Standards

- ROCKWOOL ProRox Slabs conform to:

- BS EN 13162: 2008. Thermal insulation products for buildings – factory made mineral wool (MW) products – specification

- BS EN 14303: 2009. Thermal insulation products for building equipment and industrial installations. Factory made mineral wool (MW) products - specification.

- Satisfy the requirements of BS 5422 'Method for specifying thermal insulating materials for pipes, tanks, vessels ductwork and equipment....'

Description

Dimensions
Standard sizes: See table below
Thicknesses: 25*, 30, 40, 50, 60, 75 and 100mm

Types and densities (other sizes and thicknesses are available to special order)

*25mm is a non-standard thickness for ProRox SL 980 UK (formerly known as RW6)
+All Foil Faced, Tissue Faced and WRG Slabs are produced in 1000 x 600mm in size.

New product name	Formerly known as	kg/m3	Size (mm)	Thickness
ProRox SL 920	RWA45	45	1200 × 600+	30,40,50,60,75,100
ProRox SL 930	RW3	60	1200 × 600+	25,30,40,50,60,75,100
ProRox SL 950	RW4	80	1000 × 600	50,75,100
ProRox SL 960	RW5	100	1000 × 600	25,30,40,50,60,75,100
ProRox SL 980	RW6	140	1000 × 600	30,50,75,100

Finishes
Non-woven mineral black or white tissue, aluminium foil are available.

Environment
No CFCs, HFCs or HCFCs are used in the manufacture of ROCKWOOL materials.

Performance and properties

Resistance to compression

Tested in accordance with BS EN 826: 1996
NB Elastic limit occurs between 6 and 12% deformation.

MED classed ships – DTLR MCA approval
ROCKWOOL ProRox Slabs are rated non-combustible in accordance with ISO 1182 and IMO A. 799.

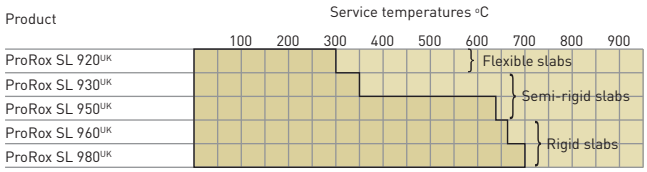
Fire

Achieves a reaction to fire classification of A1 as defined in EN 13501-1.

Water resistance
ROCKWOOL ProRox Slabs are highly water repellent. Where it is necessary to maintain water repellency subsequent to heating at elevated temperatures, the use of WRG slabs is recommended.

ProRox Slabs

New product name	Formerly known as	Stress req'd to produce 10% compression (kN/m2)	Stress req'd to reach elastic limit ðe (kN/m2)	Displacement at 5 kN/m2 stress
ProRox SL 920	RWA45	3.0	3.5	16.5
ProRox SL 930	RW3	6.7	6.1	7.0
ProRox SL 950	RW4	12.9	9.2	5.5
ProRox SL 960	RW5	16.4	11.3	4.6
ProRox SL 980	RW6	28.2	26.1	4.2



Minimum bending radius for ROCKWOOL ProRox slabs shown below (These typical figures depend on the installation method) All radii given in millimetres.

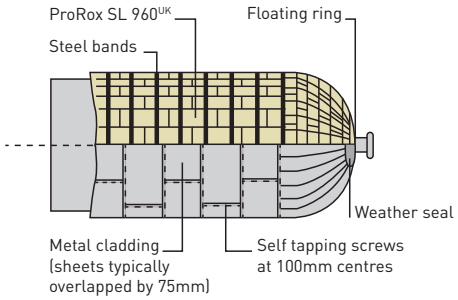


Figure 1: ProRox SL 960UK (formerly known as RW5 Slab) insulation on a large vessel

Maximum service temperatures

The maximum recommended service temperature of unfaced Slabs depends on the composition of the product and is given in the chart below.

For faced products, the facing temperature should not exceed 80°C, the melting temperature of the adhesive.

ROCKWOOL ProRox Slabs are bonded with a phenolic resin which is resistant to temperatures up to 230°C. They may be used at much higher temperatures, but some resin will be lost close to the hot surface.

Bending radius

Curved surfaces can be insulated with ROCKWOOL ProRox slabs. The table below gives the minimum bending radius for several ROCKWOOL ProRox slabs. Bending to smaller radii can deform the product and increase the installation time.

New product name	Fomerly known as	Slab thickness (mm)						
		30	40	50	60	75	80	100
ProRox SL 920	RWA45	425	500	700	900	1200	1300	1800
ProRox SL 930	RW3	425	500	700	1000	1350	1500	1900
ProRox SL 960	RW5	550	700	1000	1500	2250	2500	2500
ProRox SL 980	RW5	1500	1900	2600	3000	3300	3400	3500

ProRox Slabs

Performance and properties

Acoustics

ROCKWOOL stone wool works in two distinct ways to reduce noise, either by impeding the transmission of sound through an element of the structure or by absorption of sound at the surface.

Noise absorption is expressed as a factor between 0 and 1.0. The more sound that a surface absorbs, the higher its absorption coefficient.

The structure of the fibres in ROCKWOOL ProRox Slabs make them ideal for use as a sound absorber, with characteristically high coefficients over a wide frequency range (see Table following page).

Tissue faced slabs

Slab size: 1000mm× 600mm

ROCKWOOL manufacture a wide range of tissue faced, line produced slabs, ranging from 45 kg/m^3 to 140 kg/m^3. See current price list for full range.

The tissues are bonded to the face of the slabs with binder which provides a superior acoustic and fire performance to fabricated, adhesive applied, tissue faced products.

70 gramme black and 100 gramme white tissue options are available from ROCKWOOL.

Thermal conductivity (industrial applications)

Mean Temperature °C	**Values (W/mK)**				
New product name	ProRox SL 920	ProRox SL 930	ProRox SL 950	ProRox SL 960	ProRox SL 980
Formerly known as	RWA45	RW3	RW4	RW5	RW6
50	0.042	0.040	0.039	0.039	0.040
100	0.054	0.049	0.045	0.045	0.044
150	0.069	0.059	0.053	0.052	0.051
200	0.086	0.070	0.062	0.060	0.057
250	0.106	0.085	0.073	0.071	0.064
300	0.131	0.103	0.085	0.081	0.073
350		0.122	0.100	0.094	0.084
400			0.117	0.107	0.094

ProRox Slabs

Absorption coefficients for selected Rockwool ProRox slabs:

Material - New product name	Material - Formerly known as	Thickness (mm)	Mounting	Frequency (HZ) 125	250	500	1K	2K	4K
ProRox SL 930	RW3	50	Direct	0.11	0.60	0.96	0.94	0.92	0.82
ProRox SL 930	RW3	75	Direct	0.34	0.95	1.00	0.82	0.87	0.86
ProRox SL 960	RW5	30	Direct	0.10	0.40	0.80	0.90	0.90	0.90
ProRox SL 960	RW5	30	300 mm gap	0.40	0.75	0.90	0.80	0.90	0.85
ProRox SL 960	RW5	75	Direct	0.40	0.75	0.90	0.80	0.90	0.85
ProRox SL 980	RW6	50	Direct	0.20	0.75	0.90	0.85	0.90	0.85
ProRox SL 980	RW6	50	300 mm gap	0.65	0.55	0.75	0.85	0.75	0.85

The absorption coefficients shown above are typical figures that can be achieved by unfaced ROCKWOOL products.

They have been obtained from a comprehensive range of measurements made over a number of years. Note: Differences in coefficients of less than 0.15 are not significant.

Applications and typical details

ROCKWOOL ProRox slabs are suitable for a wide range of thermal, acoustic and fire insulation requirements both within buildings and for industry, as detailed on this page.

1 Industrial uses

Thermal and acoustic for boilers, ducts and vessels, particularly in the chemical, petrochemical and power generating industries.

Generally, for furnaces, ovens, calorifiers, hot-water boilers, storage tanks, drying equipment and air conditioning plant.

2 Fire protection

Floors

ProRox SL 960^{UK} slabs (formerly known as RW5) have been assessed by LPC as a suitable product for upgrading the fire resistance of dense concrete slabs (for up to 2 hrs).

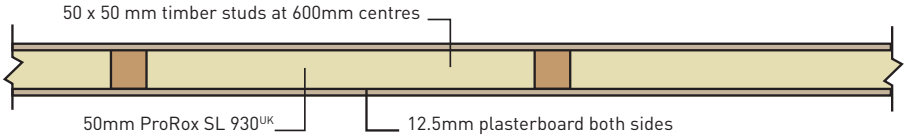
ProRox SL 920^{UK} slabs (formerly known as RWA45) can also be used to firestop small voids, in particular the gap under pitched tiled roofs in dwellings (Contact Technical Solutions on 0871 222 1780 for details).

3 Acoustic control

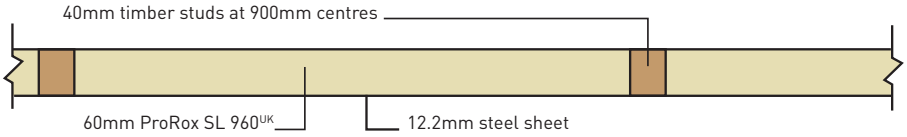
The slabs are particularly suitable for acoustic infills in partitions and ceilings, providing a high level of control of both airborne and structure-borne sound.

They are also suitable for acoustic absorption in the linings of buildings, ProRox SL 930^{UK} (formerly known as RW3) being particularly good in sound studios. Rigid Slabs can be used in industrial applications such as acoustic splitters and acoustic damping of ducts.

ProRox Slabs



Lightweight timber stud partition, average sound reduction 42dB, fire resistance 30mins



Steel faced partition, average sound reduction 44dB

Typical specification clauses – domestic and commercial applications

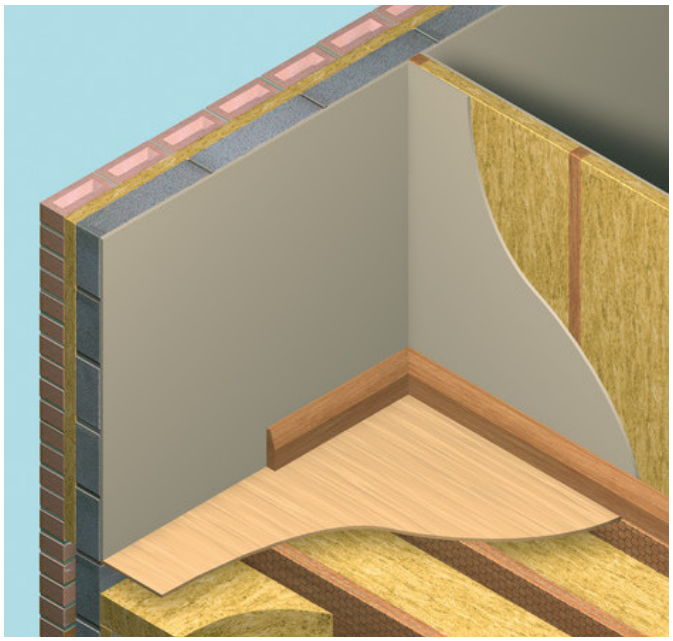
1 ProRox SL 930UK slabs (formerly known as RW3) as acoustic infill to stud partition
The acoustic infill is to be ROCKWOOL ProRox SL 930UK (formerly RW3) Semi-rigid Slabs .....mm* thick (insert thickness to correspond with depth of studs), installed to a tight fit between the timber studs and cut to close fit above and below noggings as necessary. Chasing of the acoustic infill or services will not be permitted without the prior consent of the Supervising Officer.

* Insert required thickness

Work on site

Handling and storage
ROCKWOOL ProRox slabs are light and easy to cut to any shape with a sharp knife. They are shrink wrapped in polyethylene and supplied on pallets that are shrouded with a waterproof hood suitable for outside storage.

Maintenance
Once installed the ROCKWOOL ProRox slabs need no maintenance.



Thermal and acoustic insulation using ROCKWOOL ProRox slabs

ProRox Slabs

Sustainability

As an environmentally conscious company, ROCKWOOL promotes the sustainable production and use of insulation and is committed to a continuous process of environmental improvement.

All ROCKWOOL® products provide outstanding thermal protection as well as four added benefits:

- Fire resistance
- Acoustic comfort
- Sustainable materials
- Durability

Health and safety

The safety of ROCKWOOL stone wool is confirmed by current UK and Republic of Ireland health & safety regulations and EU directive 97/69/EC: Rockwool fibres are not classified as a possible human carcinogen. A Material Safety Data Sheet is available from ROCKWOOL Technical Solutions (0871 222 1780) and can be downloaded from www.rockwool.co.uk to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

Environment

Relying on entrapped air for its thermal properties, we are proud to say that ROCKWOOL insulation does not contain (and has never contained) gases that have ozone depleting potential (ODP) or global warming potential (GWP). ROCKWOOL therefore complies with the relatively modest threshold of GWP<5 included in documents such as the Code for Sustainable Homes. ROCKWOOL is increasingly involved in recycling waste ROCKWOOL material that may be generated during installation or at end of life. We are happy to discuss the individual requirements of contractors and users considering returning ROCKWOOL materials to our factory for recycling.

More information

For further details visit our website at www.rockwool.co.uk or phone ROCKWOOL Technical Solutions on 0871 222 1780.

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