

RL STONEWOOL

For Ultratherm MSR Roof and Cladding Systems

RL Stonewool is a high density insulation slab that can be used in RoofLogic metal and membrane roof systems and as a continuous insulation layer for all wall systems.



DESCRIPTION

RL Stonewool is manufactured from a volcanic rock, to which selected recycled materials are added. The material is melted and spun into wool, which is then bonded using a small amount of binder.

Because RL Stonewool's insulating qualities rely purely on entrapped air, not environmentally harmful blowing agents, it does not contain gases with harmful ozone depleting or harmful global warming potential. Furthermore its thermal performance remains constant, without altering or subsiding over time. Being made from rock, RL Stonewool products are dimensionally stable under a wide range of temperatures, RL Stonewool is non-combustible with melting point in excess of 1000°C.

RL Stonewool is compatible with most materials used in commercial and industrial building applications.

BENEFITS

- **Durability:** RL Stonewool slabs are odourless, rot proof, non hygroscopic, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria.
- **Water Resistance:** RL Stonewool slabs are non-wicking when tested to BC 2972:1989 Section 12. When exposed to 90% relative humidity at 200°C, RL Stonewool will absorb less than 0.004% moisture.
- **Condensation Control:** When calculating vapour diffusion through a structure, the vapour resistivity of RL Stonewool is negligible and usually considered to be the same as that of air (typically 5.9 MNs/gm). RL Stonewool products can therefore be used to reduce the risk of condensation and allow natural drying out of the construction due to their ability to 'breathe'.
- **Acoustic Performance:** Within a properly designed roof system RL Stonewool can significantly enhance the acoustic performance of a roof system in respect to STC rating and rain noise attenuation.
- **Thermal Performance:** RL Stonewool has excellent thermal performance and has the benefit of being able to be installed continuously across the roof, eliminating thermal bridging. Unlike cellular plastic/polyurethane insulation boards, Stonewool will retain dimensional stability and thermal performance over the life of the building.
- **Fire Performance:** RL Stonewool are classified as Euroclass A1 to BS EN 13501-1, non-combustible to BS 476: Part: 1970 (1984) and, Class 1 Surface spread of flame to BS 476: Part 7: 1997. Meets requirements of AS/NZS 1530.1 (non combustible)
- **Environmental:** RL Stonewool Slabs represent no known threat to the environment and have zero ozone depleting potential and zero global warming potential.

THERMAL PROPERTIES-(R-VALUE)

Thickness (mm)	50	60	70	80	90	100	120	140	160	180	200	220	240	260
R Value-D 80	1.40	1.67	1.95	2.22	2.50	2.78	3.34	3.90	4.45	5.00	5.55	6.10	6.66	7.22
R Value-D 90/145/180	1.32	1.59	1.85	2.11	2.38	2.64	3.17	3.7	4.23	4.75	5.28	5.78	6.3	6.83

TECHNICAL PROPERTIES

Property	D 80	D 90	D 145	D 180
Compression strength at 10% deformation, kPa, not less than	30 kPa	40 kPa	50 kPa	60 kPa
Concentrated load, N, not less than	380N	500N	600N	600N
Flammability grade	Non-flammable			
Reaction to fire	Euroclass A1 EN 13501-1 AS1530.1-1994 , NON COMBUSTABLE			
Declared Thermal conductivity at 10°C, W/m°C	0.036 W/m°C			
Interlaminar strength, kPa, not less than	10 kPa	10 kPa	12 kPa	14 kPa
Vapor permeability, mg / (m*h*Pa), not less than	0.3	0.3	0.3	0.3
Humidity by weight, %, no more than	0.5%	0.5%	0.5%	0.5%
Water absorption by volume, %, no more than	1.5%			
Content of organic substances, %, no more than	4.5%			
Density,	80 kg/m ³	90 kg/m ³	145 kg/m ³	180 kg/m ³
Length	1000 - 1200mm			
Width	500 - 600mm			
Thickness (with increments of 10 mm),	50 – 200mm			

RL Stonewool slabs are easy to handle, install and cut to size. RL Stonewool slabs are supplied in polythene packs which are designed for short term protection only. For longer term protection on site, product should be stored indoors, or under cover off the ground. Slabs should not be left permanently exposed to the elements.