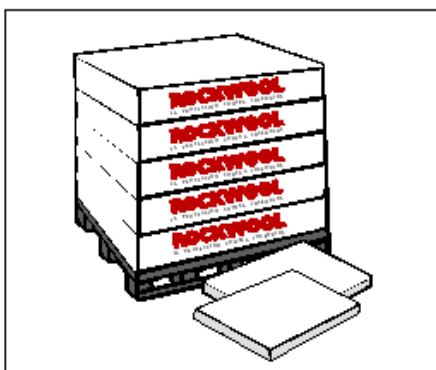


HARDROCK 2 SD



Product description

Produced with a robust, high density top surface, the products therefore exhibit excellent point load compressive resistance. The dual density roofing boards are manufactured with a high density. The panel is coated with a layer of bitumen.

Application

Heat insulation and acoustic in metal or concrete flat roofs.

Advantages

- Faster to install.
- High mechanical benefits.
- Excellent resistance to the point load.
- Well-known improvement of the sound insulation.
- Neither-hydrophilic nor hygroscopic.
- Chemically inert-
- Free of CFC and HCFC, respectful with environment.

Technical characteristics

Nominal density

140-210 Kg/m³

Specific heat

0.84 KJ/Kg K to 20° C

Thermal conductivity

0.039 W/(m²K)

According to UNE 92201-UNE 92202

Thermal resistance

Thickness (mm)	50	55	60	65	70	75
R(m ² K/W)	1.25	1.40	1.50	1.65	1.75	1.90
Thickness (mm)	80	85	90	95	100	105
R(m ² K/W)	2.05	2.15	2.30	2.40	2.55	2.65
Thickness (mm)	110	115	120	125	130	135
R(m ² K/W)	2.80	2.90	3.05	3.20	3.30	3.45
Thickness (mm)	140	145	150	155	160	
R(m ² K/W)	3.55	3.70	3.80	3.95	4.10	

Water absorption

Rockwool consists of randomly orientated water-repellent fibres. Wetting will therefore only occur in proximity to its surface.

As Rockwool is diffusion open, boards that become wet during installation must be allowed to dry out naturally, prior to the application of the roof membrane.

•It's little sensitive to the variations of the temperature and the hydrometry. Medium inflated of the thickness 2% (<5%) (test tube maintained 15 minutes to 100°C, 100%) (Relative humidity and later cooling to the environment temperature)

•Absorption of water after an complete immersion: 7/9% to 20°C after 7 days of saturation. It returns at initial weight in 48 hours.

Water resistivity

The resistance to the water vapour is negligible, similar al of the air $\mu\pm 1.4$.

Fire reaction

Panel classified like combustible. Euroclass: F

Stability dimensional

Being made from rock, Hardrock is dimensionally stable and therefore:

a)do not require any mechanically fasteners to prevent differential thermal expansion.

b)do not exert any undesirable stress on the waterproofing membrane.

•Coefficient of lineal thermal enlargement: $2 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$.

•Residual retention to 20°C after 4 days to 70 °C: imperceptible.

•Dimensional variation with an environmental stabilization to 20°C between 65% and 80% of relative humidity:

- Longitudinal direction <1%.
- Cross direction <1%.

Acoustic Insulation

Hardrock boards provide effective sound, an essential requirement where commercial or industrial operations generate noise, at levels which could be harmful to the health or efficiency of building occupants, or present environmental nuisance.

Consult the manual of insulation.

Compression strength

Compression strength for a deformation of the 10% ≥ 50 KPa.

Resistance to the point load at 500 KPa. The upper layer of high density contributes a greater resistance to the point load thanks to the best distribution of al load on the totality of the board.

Flat roofs

Características químicas

The wool of rock is chemically inert and it can not cause the apparition of corrosion of materials. It's a material which does not lose their shape when the time goes by. Doesn't cause the bacterial development.

Dimensions (mm)

	Large: 1200 2400			Wide: 1000 1200 600		
Thickness (mm)	50	55	60	65	70	75
Thickness (mm)	80	85	90	95	100	105
Thickness (mm)	110	115	120	125	130	135
Thickness (mm)	140	145	150	155	160	

•For other dimensions, consult us.

Installation

-Hardrock should be laid with staggered joints wherever possible and tightly butted to avoid gaps.

- The number of bindings by board depends on the height of the cover and of the type of waterproofing.

-In the case of the waterproofing sheets be set mechanically and directly on the backup, it only will be necessary a fixation by each stone wool board.

Maintenance

The boards don't need any type of maintenance.

Packing

The boards are supplied in packages or in single panels.

Generalities

The values specified in the present data sheet are medium values obtained in tests. Rockwool reserve the right in every moment and unexpectedly to notice to modify the specifications of its products.



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