

Technical Data Sheet

Perliwool

Rockwool mortar for passive fire protection

Perliwool is a dry spray mortar, made up of perlite, mineral wool and dry and inorganic binders. Its innovative formula gives it excellent mechanical, heat resistant and acoustic properties. It is especially suitable for fire protection and thermal insulation, as well as sound absorption and insulation.

Perliwool does not contain plaster, gypsum or lime. It does not contain any toxic component or pathogens and is asbestos free.

Once sprayed, Perliwool has a rough finish and monolithic texture. Due to its composition, it generates a continuous, elastic, and joint-free layer.

Field of application

Perliwool is intended for coating structural and partitioning elements in buildings for passive fire protection, so that the stability and resistant capacity of these elements is maintained until the fire is extinguished and/or the building is evacuated.

Application

The mortar is applied dry with an air spraying machine.

Surface preparation. The surface must be dry and free of grease, dust and dirt. When the surface does not provide a sufficient guarantee of adherence, you must place a mesh or bonding bridge before spraying.

Mesh. No mesh is required except when using the mortar on wood and concrete (in some cases). Its use is also recommended on girder flanges wider than 500 mm.

Spraying. A working pressure of 3 bar in the water pump is recommended. Spray the previously cleaned surface until the exact thickness is obtained. The thickness must be applied in 10 to 15 mm coats, up to a maximum thickness of 50 mm per coat.

Finish. Rough-finished mortar. If necessary, it can be smoothed (finished with a roller)

Technical specifications

Base	Rockwool
Colour	Greyish White / Greenish Grey
Apparent density	280 - 290 Kg/m ³
Hardened mortar density	300 Kg/m ³
pH value	12
Adhesion	0.04 N/mm ²
Compressive strength	0.4 N/mm ²
Bending strength	0.4 N/mm ²
Theoretical coverage	3 Kg/m ² /cm
Application temperature	between 3 and 30 °C
Reaction to fire	A1
Smoke toxicity	F1
Thermal conductivity	0.071 W/mK
Presentation	25 kg bags 24 bags/pallet (600 Kg)

Storage and safety

Perliwool material can be used up to one year after delivery. It should be kept closed and dry.



Approvals and Certificates

PERLIWOOL mortar has been subjected to a variety of harmonised European standard tests to determine its fire resistance in different systems.

- Metallic structure according to EN 13381-4
Classified system up to R 240
- Concrete structure according to EN 13381-3
Classified system up to REI 240
- Timber beam floor with ceramic brick in accordance with EN 1365-2
Classified system up to REI 120
- Partitions in accordance with EN 1364-1
EI 180 classified system
- Firewalls according to EN 1363-1 and "Fire resistance test protocol for fire barrier joint between wall/roof". Classified system up to EI 120.



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The information in this data sheet is based on our knowledge and experience to date and is given for information only. We are not responsible for anomalies caused by misuse of the product.

Acoustic tests

- Sound absorption in accordance with UNE-EN ISO 354
 $\alpha_w = 0.8$ for 30 mm thickness
 $\alpha_w = 1$ for 50 mm thickness
- Sound absorption in accordance with ASTM C423-09a (NRC)
NRC = 0.9 for 30 mm thickness
NRC = 1 for 50 mm thickness

Thermal conductivity test

- Thermal conductivity according to UNE-EN 12667

LEED Certification

- Perliwool has the LEED green technical data sheet issued by the Green Building Council of Spain.