



TECHNICAL DATASHEET

PERLIWOOL TERMIC

ROCK WOOL MORTAR FOR THERMAL INSULATION



PERLIWOOL® TERMIC, is a new concept in sprayed mortars, using rock wool as a base, mainly used for thermal insulation in construction systems.

PERLIWOOL® TERMIC, in addition to being a product specially designed for thermal insulation, has excellent sound absorption capacities.

PERLIWOOL® TERMIC helps to prevent water condensation.

PERLIWOOL® TERMIC is a completely fire-retardant product.

PERLIWOOL® TERMIC does not contain gypsum, plaster or lime in its composition, nor does it include any toxic ingredients.

PERLIWOOL® TERMIC has a rough appearance and a monolithic texture, once applied. Different finishes may be achieved through light smoothing with a float or roller, and a coat of suitable paint may be applied in order to create different shades for decorative effects, if required.

It is sprayed on directly using an air gun, with a dry process spraying machine, onto the elements to be protected. This, along with its excellent adhesion properties, means that the coating adapts perfectly to the element being insulated without cracks or fissures, resulting in a continuous and elastic coating without joints.

SCOPE OF APPLICATION

PERLIWOOL® TERMIC is used primarily for the thermal insulation of construction elements, having outstanding acoustic properties, and for controlling surface water condensation, with an A1 reaction to fire rating.

APPLICATION

The mortar is applied via dry process using pneumatic spraying equipment.

Surface preparation. The substrate must be dry and free from grease, dust and dirt. When this does not provide sufficient assurance of adhesion, a mesh or bridging piece must be added before spraying.

Spraying. It is sprayed on directly using an air gun, with a dry process spraying machine, onto the elements to be insulated. This, combined with its excellent adhesion properties, means that the coating adapts perfectly to the element being protected without the presence of cracks or fissures, resulting in a continuous and elastic coating without joints, thus avoiding the difficult-to-remedy thermal bridges generated by other systems.

FINISHES

Exposed **PERLIWOOL® TERMIC**.

Classic or rustic finish: Once sprayed on, **PERLIWOOL® TERMIC** forms a rough continuous coating, resulting in a rustic finish.

Smooth finish: Wet-state **PERLIWOOL® TERMIC** can be flattened and moulded to suit, resulting in a smooth and original finish.

Finish with **End Liquid**: **End Liquid** is a liquid finishing product which hardens the mortar. **End Liquid** has an A1 reaction to fire rating, thus retaining the properties of **PERLIWOOL® TERMIC** in this respect.

Painted finish: Not only does painting provide **PERLIWOOL® TERMIC** with different finishing colours to suit the customer's tastes, but our brand of paint hardens the product. For easy application, the use of a spray or air gun is recommended.

**Non-exposed PERLIWOOL® TERMIC.**

Interior applications: **PERLIWOOL® TERMIC** may be covered with practically any dry or wet-process partitioning system or any false ceiling system currently available on the market, and installation systems independent of those for the mortar.

Exterior applications: on ventilated facades, the exterior leaf of each ventilated facade may be covered. Roofs can be covered using the different types of tiles currently available on the market, as well as suitable lightweight flooring.

STORAGE AND SAFETY

PERLIWOOL® TERMIC material is ready for use up to one year after manufacture. It must be kept sealed and dry.

**PERLIWOOL® TERMIC****TECHNICAL SPECIFICATIONS**

- Protects steel from the effects of corrosion. (Basic pH value: 12).
- Does not contain gypsum, plaster or lime. Does not contain any toxic ingredients or pathogens and is asbestos-free.
- Its physical characteristics prevent the formation of condensation.
- Density: 150 kg/m³.
- Reaction to fire rating: A1.
- Flexural strength: 0.4 N/mm².
- Compressive strength: 0.4 N/mm².
- Coefficient of thermal conductivity: 0.050 W/mhK.
- Material adhesion: 0.019 N/mm².
- Smoke toxicity rating: F1.
- Packaging: 20 kg bags.
- Minimum practical thickness: 10 mm.
- Cure type: Drying.
- Initial set: between 12 and 24 hours, depending on ambient conditions and humidity level.
- Sound absorption (30 mm):
SAA = 0,84
NRC = 0,85
 $\alpha_w = 0,75$ (MH) Class C
- Sound absorption (50 mm):
SAA = 0,96
NRC = 0,95
 $\alpha_w = 1,00$ Class A





PERLIWOOL® TERMIC TYPE-APPROVAL AND CERTIFICATION

PERLIWOOL® TERMIC mortar is subjected to various harmonised European standard tests to ascertain its capabilities.

Thermal conductivity test

- Thermal conductivity in accordance with UNE-EN 12667

Sound absorption

- Acoustic sound absorption in accordance with UNE-EN ISO 354

$\alpha_w=0,75$ For 30 mm thickness
 $\alpha_w=1$ For 50 mm thickness

- Acoustic sound absorption in accordance with ASTM C423-09 a

NRC=0,85 For 30 mm thickness
NRC=0,95 For 50 mm thickness

λ PERLIWOOL® TERMIC: 0.05 W/mhk

**PERLIWOOL® TERMIC THERMAL RESISTANCE AND TRANSMITTANCE
AS A FUNCTION OF THE APPLICATION THICKNESS.**

PERLIWOOL® TERMIC THICKNESS (IN mm)	30	40	50	60	80	100	120	140	160
THERMAL RESISTANCE R	0.60	0.80	1.00	1.20	1.60	2.00	2.40	2.80	3.20
THERMAL TRANSMITTANCE U	1.66	1.25	1.00	0.83	0.62	0.50	0.42	0.36	0.31