

TERMAL U

Insulating, natural, mineral, fiber-reinforced render.

Description

TERMAL U is a mineral render with high insulating capacity produced with light, natural, aggregates materials and hydraulic binders. TERMAL U will not deteriorate, will not alter in time, and is not affected by insects or mould.

TERMAL U withstands the effects of atmospheric agents.

TERMAL U comply with EN 998-1.

Uses

TERMAL U offers a high degree of thermal insulation and, thanks to its specific polyvalence, can be used to replace any other thermo-insulating materials. The material can be used to create mineral, permeable, heat-insulating, render coatings with high durability for the insulation of buildings on concrete and masonry or any other type of thermal insulation uses, also when applied in low thicknesses.

Advantages

General: TERMAL U provides a very high degree of insulation also at low thicknesses as a result of the characteristics of the components used in its particular formula, the use of amorphous silica and thanks also to the method of production.

Low thicknesses: On account of its specific quality, this product allows the user to obtain a high degree of insulation with a thickness of only 2,5-3 cm.

Permeability: Thanks to the characteristics of the materials with which this product is produced and its aerated structure, TERMAL U offers a very high degree of permeability, which facilitates the migration of water vapour towards the outer surfaces, thereby eliminating condensation and humidity (and mould), which can greatly reduce the insulating effect of low-conductivity materials. Masonry and building structures thus stay dry at all times and thermal insulation remains at a constant very high level.

Qualitative protection: Outdoor application of TERMAL U as an insulating agent decreases the risk of excessive ranges of temperature variation in the winter and summer periods. The phenomenon of structural expansion, an adjunctive cause of fracturing and cracking, is thus limited and long-lasting, effective protection is guaranteed.

Thermal shield: The insulation system created by the use of TERMAL U allows for the elimination of 'thermal bridges' or points of 'structural interruption' in a building, such as floors which come into contact with outer walls or points where two external walls join. From experience, it is possible to state that such areas and structural points feature high rates of thermal dispersion, and in an internally isolated building, can reach approximately 20% of total dispersion. Elimination of 'thermal transfer bridges' eliminates the formation of condensation in the corners of rooms, on ceilings and in walls, the areas with the highest levels of conductivity and the lowest surface temperatures. This is possible because by isolating these areas on the outside, the internal temperature will never fall below dew point, which ensures a high level of environmental comfort for persons inside the building.

Fiber-reinforced: TERMAL U is fiber-reinforced. This limits the formation micro-fissures and cracks caused by plastic shrinkage.

Mechanical resistance: TERMAL U provides a high level of mechanical resistance to compressive strength and impact and can be easily restored just like any normal plaster. As it resembles common renders, TERMAL U easily allows for recasting in future structural work or building maintenance and adheres homogeneously to the previously applied layers.

Technical data (EN 998-1)

Dried cured mortar bulk density	approx 450 kg/m ³	EN 1015-06
Reaction to fire	Class A1	EN 13501-1
Water absorption	W 1	EN 1015-18
Water vapor permeability	$\mu \leq 9$	EN 1015-19
Thermal conductivity	$\lambda_D = 0,077$ W/mK	EN 1745
Compressive resistance 28 d	CS I	EN 1015-11
Adhesion on porous surface	0,18 N/mm ²	EN 1015-12

Instructions for use

Preparation of the support

On new brickworks, carefully wet, remove thus possible deposits. On concrete, old masonry , carefully wet and apply the rendering coat RINZAFFO F. In case of damp and salty masonries, apply the salt converter rendering coat RINZAFFO AS.

Use

TERMAL U is a pre-mixed product which must be mixed using only fresh clean water at the rate of approx. 7,5 litres per 13 kg bag of the product. Pour the water into the concrete mixer and then the product, mixing for at least 4-5 minutes. Empty the concrete mixer and apply the mixed product within approx 60 minutes. As it is a pre-mixed product, it can be applied using a plaster sprayer provided with a vertical mixer, stator and worm or plaster sprayer with pre-mixer and rotary peristaltic pump. According to the thickness which must be realized, the mixed product must be put on in consecutive coats with an interval of 24 hours between each other and in any case after the complete set. Maximum thickness per coat 2.5-3 cm. Smooth the surface within 24 h and only at the end of last coat.

Finishing

Wait at least 15-20 days for curing before finishing the render surface applying a special fine mortar made of natural lime and paint or apply a stucco finish coat.

Yield

4-5 kg of product / cm of thickness / sq. metre approx. The yield depends on system of use, roughness of the substrate, conditions of job site. It is suggested a test to work site for a right consumption.

Color

Amber.

Packaging

13 Kg bags.

Precaution

The product must not be applied at temperatures lower than 5°C and over 30°C. On cold days, work during daylight, do not apply in the later afternoon, or when the temperature is expected to fall below 5°C within the following 24 h. On warm and/or windy areas, the render must be kept humid, at least for the first 24 hours.

Storage

TERMAL U can be stored in the original sealed packs and in a dry environment for at least 12 months.

Specification

Thermal insulation of buildings with natural, mineral render

Supply and use of a premixed, heat-insulation, natural, mineral, fiber-reinforced render type TERMAL U composed of amorphous silica, light aggregates and hydraulic binders. Main technical characteristics of the render are as follows: $\lambda_D=0.077$ W/mK EN 1745, $\mu \leq 9$ EN 1015-19, compressive resistance CS I EN 1015-11. Applied manually or with a plastering machine for a yield of 4-5 kg/m² per cm thickness. Maximum thickness per coat 2.5-3 cm. Wait at least 15-20 days for curing, before finishing.



G&P intech s.r.l
via Retrone 39 - 36077 Altavilla Vicentina (VI) - Italy
Tel. 0444 522797 - Fax 0444 349110
E mail: info@gpintech.com - www.english.gpintech.com

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