

CLIMATHERM M

CLIMATHERM M is a Biocompatible Eco Plastering, Insulating, Dehumidifying pre-packaged powder for interior and exterior use, according to standard UNI EN 998-1. CLIMATHERM M is totally free of cement or compounds belonging to the clinker group. It consists of a mixture of pure mineral sands, expanded with low specific weight, screened with continuous grain size arc from 0 to 4 mm. The only binder present is SAINT-ASTIER Pure Natural Hydraulic Lime NHL 5 according to UNI EN 459-1 standard. The lime NHL 5, white, is produced by baking siliceous limestones at temperatures below 1250°C and reduced in powder by calcium oxide only, without the addition of pozzolanic materials or hydraulic binders of any kind.

- Dehumidifying
- Environment Friendly
- Chromium-Free
- Restoration
- Breathable
- Resistant
- Cement Free
- Versatile
- Recyclable
- Healthy
- Antibacterial
- Anti-Condensing
- Anti-Mould
- Quick
- Light
- Easy
- Green Building



Features

CLIMATHERM M is a Insulating, Dehumidifying plaster, pre-packaged powder, biocompatible, free of salts, chemical products and volatile organic compounds (VOCs). These features, combined with the total mineral nature of the components, guarantee the purity, non-toxicity, non-harmfulness and the most complete recyclability of the product in full respect for man and the environment. The expanded minerals with low specific weight, that constitute CLIMATHERM M have a cellular structure characterised by microcavities. Such structure provides an insulating power to the material, reducing heat transmission, as well as sound absorbing capacities. The use of CLIMATHERM M makes the plaster eco-friendly, biocompatible and reversible, giving high breathability to the substrate on which it is applied, avoiding the formation of dangerous condensation and bacterial proliferation by regulating the humidity of the environments.

Fields Of Application

CLIMATHERM M is specific for the formation of insulating and dehumidifying plasters on masonry of new and old buildings, for low and high thicknesses from 2 to 15 cm. Easy to work with the techniques traditionally used in the application of lime plaster. CLIMATHERM M can be applied on vertical and horizontal surfaces made up on types of solid bricks, hollow block, lightweight hollow block, mixed brick, stones and tuff. For all those compact or poorly absorbent surfaces (solid blocks or concrete cables and expanded clay pebbles, concrete block cells, lime or cement bases, reinforced concrete structures, magnesium wood) use of CLIMATHERM M must be previously applied with SPRIZZO PONTE DI ADESIONE.

Application

The laying of CLIMATHERM M must be preceded by the preparation of the substrate: if the surface is compact or little absorbent, the application must be preceded by SPRIZZO PONTE DI ADESIONE; for masonry with rising humidity it is recommended to use SPRIZZO ANTISALE.

The substrate, if it is dry, should be suitably wet except the surfaces already treated with rendering mortar SPRIZZO ANTISALE. CLIMATHERM M can be applied manually with trowel and broom or with plastering cup. CLIMATHERM M is pre-packaged and kneaded only with water for about 10-11 l per bag according to the desired consistency. Application thickness should not exceed 3-4 cm per hand. When applying multiple layers, wait until the previous one has lost a good deal of the mixing water and the surface is not compact. To make planar surfaces, proceed to the leveling with aluminum straight edge and finish them by float finish with plastic/wood trowel or scraping by planing.

If the layer of CLIMATHERM M previously applied is already dry, it will proceed with adequate wetting of the substrate before applying the next layer. This operation will keep workable the new layer and will ensure perfect adhesion to the underlying layer. In order to contain any cracking that may occur in the geometric discontinuity of the zones or the nature of the support, it is recommended to place an alkali resistant fibreglass mesh TCS GLASS CK 100. The mesh will be laid in the last cm of the plaster.

The application of INTOCIVILE smoothing, in the variants 0.8 Natural or Botticino Bianco, may occur after proper curing of the substrate, averaging 2-3 days for each applied cm. These times may vary due to the temperatures and conditions of application.

Plasters obtained with CLIMATHERM M must be separated from the walkway surfaces (sidewalks, roads, terraces), from areas where water stagnation and contact with the ground may occur (meadows, flower beds, sand or gravel substrates for cement or natural stone interlocking pavement blocks) in order to prevent the emergence of the rising damp phenomenon in the plaster body which would result in the formation of superficial stains, and the consequent early degradation of the applied finishes.

Finishes

The use of a product of the TCS Finishing Line constitutes the natural completion of a cycle compatible with the substrate, particularly with regard to the characteristics of breathability and permeability. The use of the TCS Finishing Line, composed by lime putty of Lime CL 90 or Potassium silicate, is the obligation to fulfill the expectations of aesthetic and performance features at the basis of the TCS product choice.

In case you decide to leave the plaster CLIMATHERM M natural it is recommended to apply a waterproof protection type TI 10 or TI 10 PLUS of the TCS Protection Line.

Warnings

- Product for professional use.
- Do not modify the product.
- Store the product in a dry place in the original sealed packages.
- Before using the product refer to the Safety Data Sheet.
- The data given correspond to the technical and application knowledge we have for proper use of the product, so it is recommended to carry out a practical test prior to in order to verify the suitability of the product for its intended use and consumption.
- Protect the surfaces from atmospheric phenomena, sun, wind, rain and frost.
- Since our company is not the executor of the works and can not intervene directly on the construction site conditions and on the methods of work execution, the indications given are to be considered as indicative and general, and therefore not binding for the same.
- The Company reserves the right to make the changes at any time without notice when it deems necessary.
- For more information and practical product demonstrations please consult our technical service.
- Always refer to the updated versions of the technical data sheets available at www.tcs-srl.it.

Technical Data

PRODUCT TYPE Mortar for thermal insulation (T) for interiors and exteriors use complying with the standard UNI EN 998-1

GRAIN SIZE CURVE (EN 1015-1) 0 - 4 mm

pH OF THE MIXTURE > 12.5

FRESH MORTAR APPARENT DENSITY (EN 1015-6) 650-730 kg/m³

DRIED MORTAR APPARENT DENSITY (EN 1015-10) 400 kg/m³

APPARENT DENSITY IN PILE 348 kg/m³

COMPRESSIVE STRENGTH (EN 1015-11) CSI Category

FLEXURAL STRENGTH (EN 1015-11) 0.58 N/mm²

ADHESION (EN 1015-12) 0.35 N/mm²FP-B

WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19) $\mu < 6$

WATER ABSORPTION THROUGH CAPILLARITY (EN 1015-18) W1

INITIAL SETTING TIME AT 20°C 65% U.R. 16 h

FINAL SETTING TIME AT 20°C 65% U.R. 24 h

THERMAL CONDUCTIVITY (EN 12667) lambdaD 0.057 W/(mK)

AIR CONTENT IN FRESH MORTAR (EN 1015-7) 27%

SPECIFIC HEAT (EN 12524) 1000 J/(kg*K)

SOUND ABSORPTION Rw 37 dB on stratigraphy composed by Climatherm cm 3, Plank in hollow brick cm 8, traditional plaster cm 1,5

FLAME RESISTANCE (EN 13501-1) Class A1

MIXING WATER 10-11 l per bag

CONSUMPTION 4 kg/m² about per 1 cm di thickness

THICKNESS PER COAT 3-4 cm

PACKAGING 17 kg bag

PALLET 48 bags, 816 kg

STORAGE Keep in dry place for 18-24 months in original package

APPLICATION TEMPERATURE da +5°C a +32°C

REACH CLASSIFICATION See SDS
