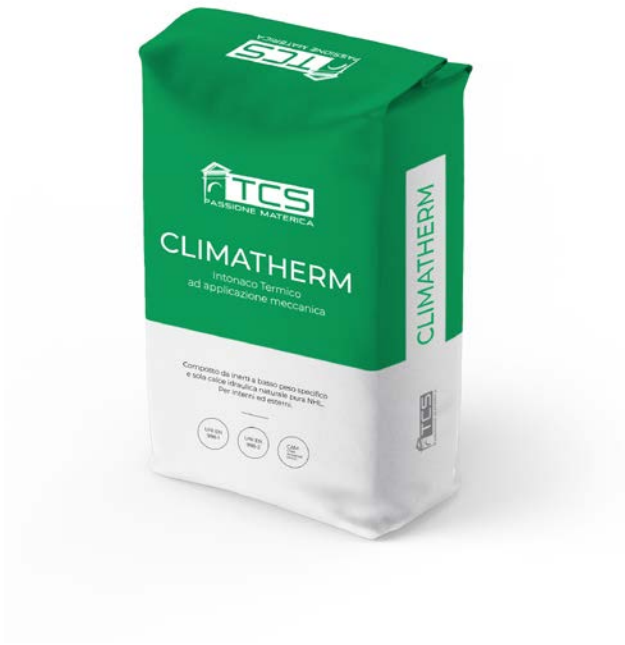
CLIMATHERM

CLIMATHERM is a Biocompatible Eco Plastering, Insulating, Dehumidifying pre-packaged powder for interior and exterior use, according to standard UNI EN 998-1:2010. 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 standard UNI EN 459-1. The lime NHL 5, white, is produced by baking siliceous limestones at temperatures below 1250°C and reduced in powder by the breakdown of 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 is a Insulating, Dehumidifying plaster, pre-packaged powder, biocompatible, free of salts, chemical products and volatile organic compounds (VOC). These features, combined with the total mineral nature of the components, guarantee the purity, non-toxicity, non-harmfulness and the total recyclability of the product in full respect of man and the environment. The expanded minerals with low specific weight, that constitute CLIMATHERM 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 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 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 lime plaster application. CLIMATHERM can be applied directly on vertical and horizontal surfaces consisting of solid bricks, hollow blocks, lightweight hollow blocks, mixed bricks, 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 should be preceded by the application of SPRIZZO PONTE DI ADESIONE.

Application

The laying of CLIMATHERM must be preceded by the preparation of the support: if the surface is compact or poorly absorbent, the application must be preceded by SPRIZZO Ponte di Adesione; for masonry with rising damp it is recommended to use SPRIZZO ANTISALE. The substrate, if it is dry, should be suitably wet except for the surfaces already treated with plastering mortar SPRIZZO ANTISALE.

CLIMATHERM can be applied by means of traditional peristaltic pump or screw plastering machine (stator/rotor D8-1.5 PFT). In the case of application with a plastering machine the pipe length must not exceed 20 m and the prevalence must not exceed 6 m. B-STRUCTURA is pre-packaged and mixed only with 10 - 11 l of water per bag according to the desired consistency.

The application thickness should not exceed 3-4 cm per coat. When applying multiple layers, wait until the previous one has lost a good deal of the mixture 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 previously applied is already dry, it will proceed with adequate wetting of the substrate before applying the next layer. This operation will allow to keep the new layer workable and will ensure perfect adhesion to the underlying layer. In order to contain any cracking phenomena which may occur in the zones of geometrical discontinuity 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 centimeter of the plaster. The application of the 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 centimeter. These times may vary due to the temperatures and conditions of application.

Plasters obtained with CLIMATHERM 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 support, particularly with regard to the characteristics of breathability and permeability. The use of Line TCS Finishing, consists of grassroots 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 TCS.
In case you decide to leave the plaster CLIMATHERM natural it is recommended to apply waterproof protection type TI 10 or TI 10 PLUS of the TCS Protective 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.

Dati Tecnici

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 STRENGHT (EN 1015-11) CSI Category

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

ADHESION (EN 1015-12) 0.35 N/mm² FP-B

WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19) μ < 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) Classe A1

MIXING WATER 10-11 l per bag

CONSUMPTION 4 kg/m²about per 1 cm of 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