

## BIO 130

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BIO 130 is a Biocompatible Eco Plaster, pre-packaged powder for interior and exterior use, compliant with standard UNI EN 998-1. BIO 130 is totally free of cement or compounds belonging to the clinker group. It consists of a mixture of pure silicate calcareous sands, screened with continuous grain size arc from 0 to 1.6 mm. The only binder present is SAINT-ASTIER Pure Natural Hydraulic Lime NHL5 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 calcium oxide only, without the addition of pozzolanic materials or hydraulic binders of any type.

- Dehumidifying
- Environment Friendly
- Chromium-Free
- Radon Free
- Breathable
- Resistant
- Cement Free
- Versatile
- Recyclable
- Healthy
- Antibacterial
- Anti-Condensing
- Quick
- Reversible
- Easy
- Green Building
- Pollution Resistant



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## Features

BIO 130 is a pre-packaged, biocompatible, free of salts, chemical products and volatile organic compounds (VOCs) plaster. 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 for man and the environment. The use of BIO 130 makes the plasters, 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.

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## Fields of Application

BIO 130 is specific for the construction of plasterboards in the newly constructed sector where, as a rule, the thicknesses are constant and contained. It is therefore recommended for an application not exceeding 2.5 cm directly on vertical and horizontal surfaces made up of bricks of solid bricks, perforated, lightweight, mixed brick, stone, tuff and hemp blocks or surfaces. 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 BIO 130 shall be preceded by the application of SPRIZZO PONTE DI ADESIONE.

## Application

The laying of the biocompatible plaster BIO 130 must be preceded by the preparation of the substrate which will be suitably wet. If the surface is compact or poorly absorbent (reinforced concrete structures, blocks in cellular or cement conglomerate, expanded clay, magnesium wood, etc.) the application must be preceded by SPRIZZO PONTE DI ADESIONE.

BIO 130 can be applied by means of a conventional peristaltic pump or plastering screw machine (stator/rotor D6-3 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. BIO 130 is pre-packaged and mixed only with about 5-6 l of water per bag according to the desired consistency.

The application thickness should not exceed 1 cm per single coat, with a maximum application of about 2.5 cm. 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 a straight edge and finish them by float finish with plastic/wood trowel or scraping by rolling.

If the layer of BIO 130 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 cm of the plaster.

The application of the INTOCIVILE smoothing, in the versions 0.0 0.4 e 0.8 Natural or Botticino Bianco, may occur after proper curing of the support, averaging 2-3 days for each applied centimeter. These times may vary due to the temperatures and conditions of application.

Plasters obtained with BIO 130 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 incipience of the capillary 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.

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## Finishes

The use of a product of the TCS Finishing Line constitutes the natural completion of a compatible cycle with the substrate, particularly with regard to the characteristics of breathability and permeability. Applying the products of TCS Finishing Line, made up of grassello 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 BIO 130 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](http://www.tcs-srl.it).

## Technical Data

**PRODUCT TYPE:** Mortar for general purposes (GP) for interiors and exteriors use complying with the standard UNI EN 998-1

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**GRAIN SIZE CURVE (EN 1015-1)** 0 - 1.6 mm

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**pH OF THE MIXTURE** > 12.5

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**FRESH MORTAR APPARENT DENSITY (EN 1015-6)** 1820 kg/m<sup>3</sup>

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**DRIED MORTAR APPARENT DENSITY (EN 1015-10)** 1590 kg/m<sup>3</sup>

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**APPARENT DENSITY IN PILE** 1310 kg/m<sup>3</sup>

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**COMPRESSIVE STRENGTH (EN 1015-11)** category CS II

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**FLEXURAL STRENGTH (EN 1015-11)** 0.50 N/mm<sup>2</sup>

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**ADHESION (EN 1015-12)** 0.30 N/mm<sup>2</sup> FP-B

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**WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19)**  $\mu$  <15

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**WATER ABSORPTION THROUGH CAPILLARITY (EN 1015-18)** W0

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**INITIAL SETTING TIME AT 20°C 65% U.R.** 14 h

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**FINAL SETTING TIME AT 20°C 65% U.R.** 18 h

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**THERMAL CONDUCTIVITY (EN 12667)**  $\lambda_{D}$  0.54 W/(mK) (tabulated value)

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**FLAME RESISTANCE (EN 13501-1)** Classe A1

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**MIXING WATER** 5-6 l for bag

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**CONSUMPTION** 14 Kg/m<sup>2</sup> about per 1 cm of thickness

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**THICKNESS PER COAT** 1 cm

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**PACKAGING** bag of 25 kg

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**PALLET** 48 bags kg 1200

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**STORAGE** keep in dry place for 18-24 months in original package

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**APPLICATION TEMPERATURE** from +5°C to +32°C

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**REACH CLASSIFICATION** See SDS