



Inorganic systems

B-STRUCTURA G

B-STRUCTURA is a Biocompatible structural mortar, pre-packaged powder for interior and exterior use according to standard UNI EN 998-2. **B-STRUCTURA** is totally free of cement and compounds belonging to the clinker group. It consists of a mixture of pure calcareous sands, screened with continuous grain size arc from 0 to 3 mm. The binder consists of SAINT-ASTIER Pure Natural Hydraulic Lime **NHL 5** according to standard UNI EN 459-1 and Metakaolin. 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.



FEATURES

B-STRUCTURA is a structural, pre-packaged, biocompatible, free of no 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 total recyclability of the product in full respect of man and the environment. The binder is made of pure hydraulic lime **NHL 5** and metakaolin to enhance its hydraulic properties, giving high strength characteristics and excellent adherence to the substrate.

FIELDS OF APPLICATION

Thanks to the strong characteristics of mechanical strength, cohesion and adhesion to the substrates, the **B-STRUCTURA mortar** is particularly suitable for structural consolidation with meshes (fiberglass, carbon, steel), FRP composite materials and helical metal bars or FRPs. **B-STRUCTURA** can be applied directly on vertical and horizontal surfaces consisting of solid bricks, hollow bricks, lightweight hollow bricks, 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 **B-STRUCTURA G** must be previously applied with **SPRIZZO PONTE DI ADESIONE**.

B STRUCTURA is ideal for:

plastering consolidating systems structural plasters scuci scuci interventions pointing of the joints with simple or reinforced mortar formation of vertical masonry

APPLICATION

The laying of **B-STRUCTURA** must be preceded by the preparation of the substrate: if the surface is compact or poorly absorbent, the application must be previously done with **SPRIZZO PONTE DI ADESIONE**; for masonry with rising damp it is recommended to use **SPRIZZO ANTISALE**. If the substrate is dry, it should be suitably wet except for the surfaces already treated with **SPRIZZO ANTISALE** plastering mortar. For brick or broken stone surfaces, the consolidation is recommended **TC35**.

B-STRUCTURA can be applied manually with float and trowel or with the bucket plastering machine, or mechanically using a traditional peristaltic pump or screw plastering machine (stator/rotor D5-2.5 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 is mixed only with 5 l of water per bag depending on the desired consistency. The application thickness should not exceed 2 cm per coat. 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 an aluminum straight edge and finish them by float finish with plastic/wood trowel or scraping by planing. If the layer of **B-STRUCTURA** previously applied is already dry, you 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.

TECHNICAL DATA

PRODUCT TYPE	Mortar for general purposes (G) for interior and exterior use complying with the standard UNI EN 998:2
GRAIN SIZE CURVE (EN 1015-1)	0-3 mm
pH OF THE MIXTURE	> 12.5
FRESH MORTAR APPARENT DENSITY (EN 1015-6)	1740 kg/m³
DRIED MORTAR APPARENT DENSITY (EN 1015-10)	1550 kg/m³
APPARENT DENSITY IN PILE	1300 kg/m³
COMPRESSIVE STRENGTH (EN 1015-11)	CSIII
ADHESION (EN 1015-12)	0.5 N/mm² FP-B
WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19)	$\mu < 15$
WATER ABSORPTION THROUGH CAPILLARITY (EN 1015-18)	W1
FRESH MORTAR APPARENT DENSITY (EN 1015-6)	1740 kg/m³
DRIED MORTAR APPARENT DENSITY (EN 1015-10)	1550 kg/m³
APPARENT DENSITY IN PILE	1300 kg/m³
COMPRESSIVE STRENGTH (EN 1015-11)	M5 class (control system 2+)
ADHESION (EN 1015-12)	0.56 N/mm² FP-B
WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19)	$\mu = 9$
WATER ABSORPTION THROUGH CAPILLARITY (EN 1015-18)	0.37 kg/(m²min 0.5)
	< 0.02% Cl
INITIAL SETTING TIME AT 20°C 65% U.R.:	8 h
FINAL SETTING TIME AT 20°C 65% U.R.:	14 h
THERMAL CONDUCTIVITY (EN 1745:2002 TABLE A 12)	0.67 W/mk Tabulated
FLAME RESISTANCE (EN 13501-1)	Class A1
MIXING WATER	5 l for bag
CONSUMPTION	15kg/m² per thickness of approximately 1 cm
THICKNESS PER COAT	2 cm
PACKAGING	25 kg bag
PALLET	48 bags 1200 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

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.