Mortars & Systems for Renovation,
Restoration & Green Buildings

OPUSTORICA IM5

Fiber plaster based on natural hydraulic lime NHL 5 certified UNI EN 459-1 and Bio Pozzolana
Cement-free product

Technical Data Sheet (T.D.S.)

Mortar based on natural hydraulic lime certified NHL 5 according to UNI EN 459-1, suitable for use as GP-type plaster for interiors and exteriors. **Compliant and CE marked according to UNI EN 998-1 class CSIII, and UNI EN 998-2 class M5**. Particularly suitable for the creation of highly breathable reinforced plasters in the green building and historical conservative restoration sectors in structural reinforcement interventions. It can be used either by hand or by machine, although it is recommended to use it mainly by machine to optimize the yield and guarantee the homogeneity and regularity of the application.

Product suitable for restoration interventions on artefacts and works of historical-artistic-architectural interest. Ideal product for restoration operations under the protection of the Superintendencies for Architectural and Environmental Heritage.

SUBSTRATE PREPARATION

The surface must be mechanically resistant, homogeneous, rough, flat and clean. In case of lack of flatness it must be previously regularized with the same material. The base must be free from dust, grease and all sediment that could damage the adhesion of the plaster. In the frequent case of carrying out restorations, careful stripping of the mortar joints must be carried out beforehand in order to eliminate all friable and mechanically weak materials. Before application, the substrate must be humidified to the point of failure by wetting with saturated water.

MACHINE APPLICATION: PLASTER

Product designed for applications with plastering machine with screw and D6-3 lung. To plaster, pour the contents of OPUSTORICA IM5 into the hopper of a continuous cycle plastering machine, adjust the flow meter until a plastic-thixotropic consistency is obtained. Spray the product at a distance of approximately 20-25 cm. In the case of reinforced plaster, follow the instructions above. To create a plaster reinforced with a mesh from the STRUTTURALE series, first proceed with the application of a covering coat of OPUSTORICA RINZAFFO render (or the same OPUSTORICA IM5) with a thickness of approx. 5mm and wait for the product to set before continuing with the subsequent phases. It is advisable to fix the ANIMA connectors beforehand so that after applying the rough coat you can proceed very easily to hang the net and fold the connectors themselves. Apply the first coat to cover the mesh respecting the thicknesses shown below. If a thickness greater than 30mm is necessary, apply the second coat wet on wet. The mesh must be spaced from the support and must be positioned halfway through the total thickness of the mortar.

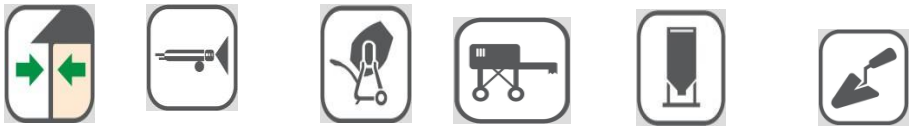
MANUAL APPLICATION: PLASTER/MORTAR

OPUSTORICA IM5 is prepared by mixing the powder with approximately 23% of drinking water (approx. 5.8L per 25Kg bag). It is recommended to pour the water first, gradually adding all the product powder. Mix carefully and continuously until a plastic and thixotropic consistency is obtained. Mix in a concrete mixer for no more than 5 minutes. Do not add any other binder or aggregate to the product so as not to modify its mechanical resistance or application characteristics.

Mortars & Systems for Renovation,
Restoration & Green Buildings

OPUSTORICA IM5

Fiber plaster based on natural hydraulic lime NHL 5 certified UNI EN 459-1 and Bio Pozzolana
Cement-free product



Complies with European standards :
UNI EN 998-1 Class CSIII
EN 998-2 Class M5

ADVANTAGES

Product formulated with historic binders with low environmental impact and formulated in accordance with green building criteria.
Cement-free product.
Low content of water-soluble salts.
Plastic-thixotropic consistency with low creep tension.
Product formulated with fibers that allow greater ductility with the underlying structure.
High breathability.
High chemical and physical-mechanical compatibility with the materials used in ancient times.

EMPLOYMENTS

Creation of breathable structural reinforced plasters for interiors and exteriors by hand or by machine which can be reinforced with resistant alkaline fiberglass meshes with low zirconium content from the STRUTTURALE series fixed to the masonry with ANIMA connectors;
Carrying out tucking or stitching operations.
Creation of structural reinforcements on architectural elements (arches, vaults, pillars) with the insertion of ANIMA 10 in the masonry courses.

STORAGE

Packaged in 25 kg bags with anti-humidity film. Store in a dry place for no longer than 6 months.

Mortars & Systems for Renovation,
Restoration & Green Buildings

OPUSTORICA IM5

TECHNICAL CHARACTERISTICS

Appearance :	----------→	Hazelnut colored powder
Application temperature, °C :	----------→	+5 to +35 °C
pH in aqueous solution :	----------→	12
Grain size range, EN 1015-1 :	----------→	0 – 3 mm
Apparent density of the powder :	----------→	1400 Kg/m3
Apparent density of fresh mortar, EN 1015-19 :	----------→	1950 Kg/m3
Apparent density of the hardened mortar, EN 1015-19 :	----------→	1600 Kg/m3
Mixing water :	----------→	23% approx.
Minimum thickness per layer :	----------→	1.5cm
Maximum thickness per layer :	----------→	2.5cm
Average Consumption :	----------→	15.5 Kg/m2 per cm of thickness
Elastic module :	----------→	Approx. 4500 MPa

PERFORMANCE DATA EN 998-1: MORTARS FOR INTERNAL AND EXTERNAL PLASTERING

Compressive strength, EN 1015-11 :	----------→	Class CS III
Adhesion, EN 1015-12 :	----------→	≥ 0.5 MPa
Water absorption by capillarity, EN 1015-18 :	----------→	Class Wc0
Water vapor permeability coefficient, EN 1745 :	----------→	≤35
Thermal conductivity, EN 1745 :	----------→	0.61 W/mK (v.t.)
Reaction to fire, EN 13501-1 :	----------→	A1
Durability :	----------→	NPD

PERFORMANCE DATA EN 998-2: SPECIFICATIONS FOR MORTARS FOR MASONRY WORKS - MASONRY MORTARS

Compressive strength, EN 1015-11:	----------→	M5 class
Initial shear resistance in combination with masonry elements in accordance with EN 771 :	----------→	0.15 Mpa (v.t.)
Chloride content, EN 1015-17 :	----------→	≤ 0.1%
Water vapor permeability, EN 1745 :	----------→	15-35 (v.t.)
Thermal conductivity, EN 1745 :	----------→	0.61 W/mK (v.t.)
Water absorption by capillarity, EN 1015-18 :	----------→	≤1.5 kg/m^2*min^0.5)
Reaction to fire, EN 13501-1 :	----------→	A1

WARNINGS

Product intended for professional use. Check the integrity of the package before use and do not use the product with lumps present. Do not remix the product by adding water once it has started to set. Any small chromatic variations do not damage the final technical performance of the product in any way. In case of application on recently created plasters, wait at least 3 weeks before applying the product. The product characteristics listed above respond to standard laboratory environmental conditions and have been verified according to the reference standards (20-23°C and 65% R.H.) and in compliance with the water: product ratio reported above. The customer is required to verify that the product is suitable for the intended use and to ensure that this technical document is valid and not superseded by subsequent updates.
The updated technical documents can be found on the website: www.premierpremiscelati.it.