

# Restoration



# Premixed cementitious mortar for dehumidifying plasters.



## **APPLICATION AREAS**

The water repellency and at the same time the breathability to water vapour make DP 501 particularly suitable: • as external plaster in the skirting boards of old buildings against rising damp, with medium salt efflorescence; • as internal dehumidification plaster in basements subject to rising humidity.

DP 501 is not suitable as a barrier for stagnant water, pressurized water, seepage. Therefore, if it is applied below ground zero and/or with water in negative thrust, it will be necessary to supplement the system with a preventive application of Aquaproof. In any case, for further information and technical details refer to the Technical Department of Torggler S.r.l.

### FEATURES

Premixed mortar, to be mixed only with water, based on cement and quartz sand, added with aerating and hydrophobising agents, to make water-repellent and breathable plasters defined as dehumidifying, because they are suitable to dry the surfaces of walls subject to capillary rising damp and to prevent efflorescence and mould growth. The capillary system, inactivated through hydrophobisation of the DP 501 plaster, prevents capillary migration of water both from the atmosphere to the masonry and vice versa, and therefore the plaster is always dry. At the same time, its high porosity allows moisture to evaporate from the wall in the form of steam. In the

case of the presence of water-soluble salts in the wall in modest quantities DP 501 prevents efflorescence, keeping the salts in solution inside the wall and thus avoiding harmful crystallization on the surface.

#### WARNINGS

- Never add cement or other types of binder.
- Never apply at temperatures below +5 °C.

#### **INSTRUCTIONS FOR USE**

#### **Preparation of product**

Mixing water: approx. 16-18 %, equal to 4.0-4.5 litres per 25 kg bag. It is advisable to add approx. 2/3 of the mixing water first and then pour in the remaining water. Approximate mixing times at 20 °C (they largely depend on the speed of the mixer and the ambient temperature).

- in a normal (pear-shaped) cement mixer: approx. 4 6 minutes
- in a mixer or with an electric stirrer: approx. 3 minutes
- manual: approx. 3 4 minutes

#### NOTE: The mixture must become light and aerated.

The mixture prepared in this way can be used immediately; if it remains still for more than 30 minutes, it must be stirred for a short time, possibly making small additions of water to bring it back to the correct consistency. The application of the DP 501 product can be carried out using a continuous mixing plastering machine such as Turbosol, PFT, Putzmeister or similar.

#### Instructions for use

Substrate preparation: In the case of old masonry, completely peel the plaster to a slightly higher height (approx. 50 cm and higher) than the moisture front. Remove brittle sealing mortar deep between brick courses or between stones and wash thoroughly with pressurized water. Large cavities can be filled with brick segments and cementlime mortar. In the presence of efflorescence (normally based on sulphates and chlorides, in rare cases also nitrates), provided that there are modest quantities, after the mechanical removal, a suitable anti-salt treatment must be carried out by applying the liquid anti-salt product as it is in a single abundant coat (approx. 0.3 - 0.5 litres per m<sup>2</sup>) with a pasting-brush or low pressure spray. After 24 hours from the anti-salt treatment, apply a covering rough coat, no thicker than 5 mm, using Rinzaffo mixed only with water, and applied manually or using a plastering machine, or alternatively by making a mixture based on cement, lime, preferably hydraulic or, alternatively, hydrated, and live sand, in volumetric ratios 1:1:3, mixed with Neoplast Latex diluted 1:2 with water (Neoplast Latex consumption approx. 600 g/m<sup>2</sup>). On new masonry, the spray can be applied without the use of Neoplast Latex and will always be applied with a good covering coat. Apply DP 501 in a thickness of approx. 2 cm to the firmed, but not hardened spray. Finish the plaster by pulling it with the straight edge tool. Avoid fine fracturing or trowel smoothing in order not to close the surface pores of the plaster. For interior walls finish, if necessary, DP 501 with Finitura or Finissimo or, alternatively, with a lime based fine mortar applying as thin as possible. For external walls, finish only with Finitura. DP 501 plaster can only be painted with highly breathable silicone paints such as silicate paints. Lime-based paints are also suitable. For exposed façades, however, these products must be subsequently impregnated with Promural Silicon. For further information contact the Technical Department of Torggler Srl.

#### **TECHNICAL SPECIFICATIONS**

Appearance	Grey powder
Particle size (EN 1015-1)	0-2.5 mm
Mixing water	16-18%
Consistency (EN 1015-3)	Approx. 160 mm
Fresh mixture density (EN 1015-6)	1.45 kg/litre
Air content (EN 1015-7)	30%
Workability time (EN 1015-9)	≥30 min.
Water retention (DIN -7)	85%
Hardened mixture density (EN 1015-10)	1.30 kg/litre

Compressive strength (EN 1015-11)	4.0 N/mm²
Flexural strength (EN 1015-11)	1.8 N/mm²
Adhesion (EN 1015-12)	0.3 N/mm <sup>2</sup>
Water absorption for capillarity after 24 hours (EN 1015-18)	1.4 kg/m <sup>2</sup>
Water penetration after capillary water absorption test (EN 1015-18)	5 mm
Permeability to water vapour coefficient ( $\mu$ ) (EN 1015-19)	10
Total porosity (Merkblatt WTA 2-9-04)	45%
Average thermal conductivity values $\lambda_{10,dry,mat}$ (EN 1745 – Table A12)	0.45 W/(m·K)
Reaction to fire (EN 13501)	Class A1
Color	Grey
Packaging	bag
Packaging size	25 kg
Pallet	50 bags

## CONSUMPTION

The consumption of DP 501 is approx. 14 kg/m<sup>2</sup>.

### STORAGE

Store DP 501 in a dry and sheltered place. In the original closed bags it is kept for at least 12 months. **PROTECT FROM HUMIDITY**.

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