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PLANITOP 100[®]

**FAST-SETTING LIGHT GREY-COLOURED FINE MORTAR
FOR SMALL REPAIRS AND FINISHING OF HORIZONTAL
AND VERTICAL CONCRETE SURFACES, FOR
CEMENT-RENDERS, AND LIME AND CEMENT MORTAR**

WHERE TO USE

For repairing and finishing of porous or chipped cement-based surfaces.

Typical applications

- Evening out surface imperfections in prefabricated concrete, such as interlocking panels, beams and pillars.
- Finishing of cement renders or lime and cement mortar before painting with ELASTOCOLOR.
- Small repairs to prefabricated concrete sections damaged while being moved.
- Rapid finishing of concrete facings repaired with products of the MAPEGROUT line.

TECHNICAL CHARACTERISTICS

PLANITOP 100 is a single-component mortar based on special cement binders, selected fine grain aggregates, additives and polymers manufactured according to a formula developed in the Mapei research laboratories.

When mixed with water, PLANITOP 100 produces a runny mortar that is easily applied even vertically up to 5 mm thick in two successive coats.

Because of its high synthetic resin content, PLANITOP 100 has excellent adhesion to all cement-based surfaces and forms a compact and mechanically resistant layer after hardening (1 to 2 hours at +23°C).

For thicknesses greater than 5 mm, adding 30% aggregates with a maximum diameter of 2 mm is recommended.

N.B. PLANITOP 100 has a shelf life of 12 months when stored in a dry place. With time, however, setting may be slower, but PLANITOP 100's final mechanical characteristics will remain unchanged.

RECOMMENDATIONS

- Do not use PLANITOP 100 to repair large surfaces. Use products from the MAPEGROUT line.

- Do not add lime, cement or gypsum to the mix.
- Do not water to a mix that has already begun to set.
- Do not use at temperatures below +5°C.

APPLICATION PROCEDURE

Substrate preparation

- Substrates must be solid and free of dust, loose materials, and form-release agents. Reinforcing bars must have rust removed and then be treated with MAPEFER.

- Saturate concrete or other porous materials with water. Wait for the excess water to evaporate before applying PLANITOP 100. To facilitate the elimination of free water, use compressed air or a sponge. In no case can the mortar be applied on substrates that have a film of surface water.

Preparing the mix

- *Finishing coat from 1 to 5 mm thick*
Pour a 25 kg bag of PLANITOP 100 into a receptacle containing 6.5 litres of clean water while mixing continuously with an agitator at low speed until a homogeneous lump free mix is obtained.



- Repairs from 5 to 30 mm thick
After mixing PLANITOP with water as described above, add up to 30% sand with a maximum diameter of 2 mm. Continue mixing until a thixotropic homogeneous mix is obtained.

N.B. After mixing with water, PLANITOP 100 is workable for approx. 20 to 30 minutes at 23°C. Prepare only as much PLANITOP 100 as can be used during that time.

Applying the mix

- Finishing coats from 1 to 5 mm thick
Apply PLANITOP 100 with a flat trowel in a maximum thickness of 5 mm. To facilitate smoothing, several coats can be applied one after the other as soon as the previous one is sufficiently dry. Alternately, a few minutes after application a float sponge may be used for finishing, in which case the surface finish will be very similar to that of a fine grain plaster.
- Repairs from 5 to 30 mm thick
Apply the mortar with a trowel to a maximum thickness of 30 mm. The mix is thixotropic, so using formwork is not necessary. Finishing can be done with a float sponge approx. 30 to 40 minutes (at 23°C) after application. If necessary for aesthetic reasons, final finishing can be done with a flat trowel or other tools to obtain a surface finish that looks very similar to the existing concrete. This requirement comes up most often when making small repairs on interlocking prefabricated concrete panels.

Precautions to be taken during application

- No special precautions need be taken when the temperature is around +20°C. In hot weather the material should not be exposed to the sun and cold water should be used for preparing the mix.
- During cold weather, use water at a temperature of +20°.
- After application, especially when hot or windy, protect the surface of the mortar to prevent rapid evaporation of water that could cause cracking from plastic shrinkage.

Cleaning

While still wet, PLANITOP 100 can be cleaned from tools with water. After setting, cleaning can only be done mechanically.

CONSUMPTION

Approx. 1.3 kg/m² for each mm of thickness if used pure.

Approx. 1 kg/m² for each mm of thickness when used with 30% of 2 mm sand.

PACKAGING

PLANITOP 100 is available in 25 kg bags.

TECHNICAL DATA

PRODUCT IDENTIFICATION

Consistency: fine powder

Colour: light grey

Specific gravity: 1.2-1.3 kg/l

Dry solid content: 100%

Storage: 12 months in original packaging in a dry place

Health hazard according to EEC 88/379: no

Inflammability: no

Customs class: 3824 50 90

APPLICATION DATA - PURE PRODUCT FOR FINISHING

Colour of the mix: light grey

Mix ratio: 100 parts PLANITOP 100 with 26 parts water

Consistency of the mix (flow): 55%

Specific gravity of the mix: 1.5 + 1.7 kg/l

pH of the mix: 12.4

Minimum application temperature: +5°C

Duration of mix at 23°C and 50% R.H.: 20-30 minutes

Setting time at 23°C and 50% R.H.: 1h - 1h30'

Maximum recommended thickness:
– Mixed pure: 5 mm
– With 30% added sand of a maximum granulometry of 2 mm: 30 mm

FINAL PERFORMANCES

Mechanical characteristics: the resistance to compression and flexion tests were carried out on prisms of mortar 4x4x16 cm, made and cured according to D.M. of the 3rd June 1968. PLANITOP 100 was made using 26% of water

Resistance to compression:
– after 1 day: > 5 N/mm²
– after 7 days: >12 N/mm²
– after 28 days: >15 N/mm²

Resistance to flexion:
– after 1 day: > 3 N/mm²
– after 7 days: > 4 N/mm²
– after 28 days: > 5 N/mm²

Adherence to the support
(tear measured on humid concrete)
after 28 days: > 2 N/mm²

Abrasion TABER ASTM D 4060-84
- 200 cycles - grinding wheel 500 g: 8 g

STORAGE

Store in a dry, covered place in original sealed packaging.

WARNING

N.B. Although the technical details and recommendations contained in this report correspond to the best of our knowledge and experience, all the above information must, in every case be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure



beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

**N.B. FOR PROFESSIONAL
USE ONLY**



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