PLANITOP 105 ME

One-component, normal setting cementitious blowhole filler and leveling mortar for smoothing concrete surfaces



WHERE TO USE

Protection, smoothing and levelling of concrete surface imperfections up to 3 mm in multiple layers as may be required to achieve a smooth finish.

Some application examples

- Smoothing surface imperfections and blemishes in concrete before coating.
- Filling of blow holes and surface imperfections in pre-cast units.
- Minor honeycombs up to a maximum of 3 mm depth.
- Smoothing irregular surfaces of cement-based renders that have good mechanical strength.

TECHNICAL CHARACTERISTICS

Planitop 105 ME is a powdered, single-component cement-based mortar with selected fine aggregates, special additives and synthetic polymers manufactured according to a formula developed in the MAPEI Research Laboratories.
When mixed with water, **Planitop 105 ME** forms a paste that is easy to apply on vertical surfaces in thicknesses up to 2 mm in a single application. As a result of its formulation **Planitop 105 ME** bonds extremely well to all concrete surfaces, and forms a compact, strongly adhered dust-free layer when cured.

RECOMMENDATIONS

- Do not use **Planitop 105 ME** for single applications greater than 2 mm in one layer in large areas. For larger repairs, please consult your local MAPEI technical representative for advice on suitable products from the MAPEI repair range
- Do not use **Planitop 105 ME** at temperatures lower than +5°C
- Do not add cement or aggregate to **Planitop 105 ME**
- For the protection of hydraulic projects and surfaces subject to abrasion, use **Mapefinish**

APPLICATION PROCEDURE

TECHNICAL INFORMATION FOR THE APPLICATION	
Mixing ratio:	100 kg of **Planitop 105 ME** 24-25 kg of water
Application thickness:	1 to 2 mm per layer

Application temperature range:	Substrate and surrounding temperature from +5°C to +40°C
Pot life of mix:	approx. 1 hr
Waiting time before applying coatings:	3 days on surfaces smoothed over using **Planitop 105 ME**. 7 days when **Planitop 105 ME** is applied over surfaces repaired using the **Mapegrout** range.

Preparation of the substrate

The surface which is to be re-profiled must be thoroughly clean and sound. Remove dust, loose particles and any traces of form release agents using high-pressure water jetting. Remove any excess surface water using oil-free compressed air or a sponge if needed.

Preparation of the mortar

Pour into a rust-free mixing vessel 4.8-5.0 liters of water needed to obtain the paste consistency required for the application. Use a slow-speed heavy-duty drill with an appropriate mixing attachment and mix at a low speed between 300 rpm and 500 rpm. Mix for 1 to 2 minutes, then check to ensure the mix is well blended, scraping any unmixed powder from the bottom and the sides of the mixing vessel. Allow the paste to settle then mix again for another 1 to 2 minutes. Avoid mixing manually, as this may adversely affect several of the mortar's characteristics, including mechanical strength, shrinkage, impermeability, etc.
Instructions for the preparation of mortar for Lab test samples are reported in the TECHNICAL DATA section.

Application procedure

Apply the mortar to the substrate using a flat metal trowel to a thickness of 1 to 2 mm per layer, making sure the surface is uniformly covered. It can also be applied up to 3 mm thickness for small patch filling. The surface finishing can be carried out with a flat metal trowel or sponge after approx. 30 minutes at +20°C. The product has an open time of approx. 60 minutes at +20°C.

Cleaning

Mortar that has not yet hardened can be removed from tools with water. After setting, cleaning is very difficult and can only be done mechanically.

CONSUMPTION

1.2 kg/m² per mm of thickness (depending on the substrate conditions).

YIELD

14.3 liters/20 kg.

PACKAGING

Planitop 105 ME is supplied in 20 kg bags.

STORAGE

When stored in dry conditions in the original unopened bags **Planitop 105 ME** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions, the shelf life may be reduced.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instruction on the safe use of our products can be found on the latest version of the Safety Data Sheet available on our website www.mapei.ae.

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION	
Class according to EN 1504-3:	R2
Type:	PCC
Consistency:	powder
Colour:	grey
Maximum size of aggregate:	0.3 mm

TECHNICAL INFORMATION FOR THE PREPARATION OF THE PRODUCT	
Composition of mix:	100 parts by weight of **Planitop 105 ME** with 24-25% water
Preparation of mix:	Product mixing according to EN 196-1

CHARACTERISTICS OF FRESH MIX (at +20°C - 50% R.H.)	
Colour of mix:	grey
Consistency of mix:	thixotropic - trowellable
Density of mix:	1750 kg/m³

FINAL PERFORMANCES
According to curing times defined in test methods

Performance characteristic	Test method	Product performance
Compressive strength: - 7 days - 28 days	EN 12190	 15 MPa 20 MPa
Flexural strength: - 7 days - 28 days	EN 196-1	 2.5 MPa 3.0 MPa
Concrete adhesion by pull-off:	EN 1542	1.0 MPa

NOTES:
Preparation of samples: compaction according to EN 196-1.
Curing conditions: PCC (according to Annex A – EN 12190).

IMPORTANT NOTES

While we try to ensure that any advice, recommendations, or information in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is, therefore, important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given, nor can responsibility be accepted other than the product we supply will meet our written specifications. The installer should ensure that our latest product data and safety information sheets have been consulted before use.

Please refer to the current version of the Technical Data Sheet from our website www.mapei.ae.

MAPEI®

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into other project-related documents. The resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website, www.mapei.ae.

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.com.

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