

# MasterEmaco® P 2700

## Epoxy-cement based primer cum levelling mortar for damp surfaces

### DESCRIPTION

**MasterEmaco P 2700** is non-solvent, multi-component, epoxy modified cementitious primer cum levelling mortar used for protection & finishing of concrete & other mineral substrates.

### TYPICAL APPLICATIONS

- As a primer / levelling mortar (0.5–3 mm) on high moisture content substrates, even green concrete
- As a Temporary Moisture Barrier (TMB) (min. 2 mm thick) allowing the application of epoxy, polyurethane and other resinous MasterProtect and / or MasterSeal coatings which normally require dry substrates for application.
- As a levelling, smoothing, reprofiling mortar for vertical and horizontal concrete surfaces
- As a primer on concrete and other mineral substrates.

Contact your local Master Builders Solutions office regarding any application required not mentioned here.

### ADVANTAGES

- Excellent adhesion on different mineral substrates (Dry or Damp)
- Faster turnaround time for MasterProtect / MasterSeal coating systems
- Better chemical resistance compared to cementitious mortars
- Protection of concrete in extreme conditions
- High water vapour permeability
- Suitable for both internal and external applications
- Solvent free

### PACKAGING

**MasterEmaco P 2700** is available in 23 kg kits consisting of 1 kg (Part A), 4 kg (Part B) and 18 kg paper bag (Part C).

### STANDARDS

- Complies to Principle 2, method 2.3 of EN 1504-2 for moisture control
- Complies to Principle 3, method 3.1 and 3.3 of EN 1504-3 for restoration work

- Complies to Principle 5, method 5.1 of EN 1504-5 for physical resistance
- Complies to Principle 7, method 7.1 and 7.2 of EN 1504-7 for preserving or restoring passivity
- Complies to Principle 8, method 8.3 of EN 1504-8 for increasing resistivity

### TYPICAL PROPERTIES

Density EN ISO 2811-1	Part A ~1.10 kg/L Part B ~1.02 kg/L
Mixed density PTA + PTB + PTC	~1.87 kg/L
Pot life at 25°C	30 min
Overcoating time with resin-based coatings	Surface moisture to fall below 4%, not earlier than: +20 °C ~24 h +25 °C ~18 h +30 °C ~12 h
Ambient Air Temperature	+10°C min. / +30°C max.
Substrate Temperature	+10°C min. / +30°C max.
Service Temperature	+10°C min. / +60°C max. for continuous exposure
Adhesion to concrete EN 1542:1999	> 1.5 MPa Class R3 of EN 1504 Part 3
Adhesion to concrete ASTM D4541-17	> 1.5 MPa Class R3 of EN 1504 Part 3
Compressive strength EN 12190	> 25 MPa Class R3 of EN 1504 Part 3
Flexural strength as per EN196-1	> 5 N/mm <sup>2</sup>
Coefficient of Thermal Expansion EN 1770	~5.6 X 10 <sup>-6</sup> / °C
Reaction to Fire	A2(f) S1
Freeze Thaw De-Icing Salt Resistance (BS EN 13687)	Bond strength ≥ 1.5 MPa after the cycle Class R3 of EN 1504 Part 3
Sulphate Resistance ASTM C1012/C1012M-18b	High sulphate resistance
Chloride ion content EN 1015-17	≤ 0.05 % Class R3 of EN 1504 Part 3
Carbonation resistance EN 13295	Depth of carbonation D <sub>K</sub> < control concrete (MC(0.45)) Class R3 of EN 1504 Part 3
Permeability to water vapour EN ISO 7783	SD < 5 m class I of EN 1504 - 2
Capillary absorption and permeability to water EN 1062-3	< 0.1 kg/m <sup>2</sup> · h <sup>0.5</sup>
Abrasion resistance EN ISO 5470-1	< 3000 mg
Impact resistance EN ISO 6272-1	NO cracks and delamination

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## APPLICATION GUIDELINES

- Ensure all requirements for surface preparation, strength and temperature are in accordance with the method statement.
- Mix only full kits and with the correct mixing equipment – forced action pan mixer or Heavy-Duty hand-held mixer with suitable mixing head (see Method Statement for details).

## SURFACE PREPARATION

All substrates (new and old) must be structurally sound, dry, free of laitance and loose particles and clean of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants. The surface should be prepared by shot blasting, high-pressure water jetting or other suitable mechanical method.

After surface preparation the tensile strength of the substrate should exceed 1.5 N/mm<sup>2</sup> (check with an approved pull-off tester).

The temperature of the substrate should be minimum +10°C and maximum +30°C.

Saturate absorbent substrates with clean tap water before applying **MasterEmaco P 2700**. The support must be damp but free of standing water. Try to keep the temperature uniform during application and hardening.

## MIXING

**MasterEmaco P 2700** is supplied in three separate components, in the correct quantities, ready for use. Do NOT use part mixing unless accurate measuring scales are available!

Mixing ratio (by weight):

Part A (Resin):	1 kg
Part B (Hardener):	4 kg
Part C (Filler):	18 kg

- Pour Part A into Part B, ensuring to completely empty the pack of Part A, and mix with a slow speed heavy-duty hand-held mixer and paddle (maximum 600 rpm) until a homogeneous mixture is obtained (min. 1 minute).

- Place the mixed resins into a clean 20 L mixing container and then slowly add Part C (filler) and continue mixing until obtaining a homogeneous product without lumps.
- Avoid the inclusion of air when mixing.

## PLACING / APPLICATION

- As a primer: Apply **MasterEmaco P 2700** by thickness of <1mm.
- As levelling coat: Apply a scratch coat of **MasterEmaco P 2700** by steel trowel (max. 2 mm per coat).
- Small areas up to 0.1m<sup>2</sup> can be repaired / filled to a maximum thickness of 10mm in layers. Do NOT repair / level large areas with **MasterEmaco P 2700** where the thickness will be in excess of 3mm – especially IF these areas are external and subject to thermal gradients during the day / night.
- Where necessary apply the material in two layers at an interval of 12 hours one from the other. Allow **MasterEmaco P 2700** to cure for a minimum of 18 hours before applying any other coating. In case overcoating takes place after a longer waiting time, grind the primer surface before applying a coating.

## CLEANING

Tools can be cleaned with water while still wet. Once the material has cured, it can only be removed mechanically.

## COVERAGE / YIELD

As a primer: approx. 0.9 to 1.8 kg/m<sup>2</sup>  
 As levelling coat: approx. 1.8 to 3.6 kg/m<sup>2</sup>  
 Do not exceed the maximum allowed consumption in one layer.

These consumptions are theoretical and can vary according to the absorption and roughness of the substrate. It is essential to carry out representative trials on site to evaluate the exact consumption.

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## WATCH POINTS

- Do not apply on substrates at temperatures below +10°C or above +30°C and/or with relative humidity superior to 85%.
- Do not apply in case of risk of immediate rain.
- After application, avoid contact with water during the first 24 hours.
- Avoid the application in direct sunlight, strong wind or with risk of freezing conditions.
- Do not add sand, solvent or other substances that can affect the properties of the material.
- Do not apply directly onto dry absorbent concrete.
- Homogenize Part A prior to mixing to ensure final properties of the product.

## WORKING TIME

Approx. 30 minutes in 25°C ambient and substrate temperature.

## STORAGE AND SHELF LIFE

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. In tropical climates the product must be stored in an air-conditioned environment.

The shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

## HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed. Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet.

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the products.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

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