

# MasterEmaco® T 500 PG

## High Strength Manhole Leveller

### DESCRIPTION OF PRODUCT

**MasterEmaco® T 500 PG** cement based, one component, polymer modified, pourable, fast setting levelling mortar.

Complies with EN 1504 – 3

### FIELDS OF APPLICATION

- Manhole levelling,
- Repair of sewage and manhole walls,
- Repair of tracks and runway concrete pavements,
- Fixing of the kurbstone and pavers

### FEATURES AND BENEFITS

- Mixed with only water and can be applied easily
- Fast setting and can be opened to service in 1hour
- High compressive strength
- High fluidity
- Non – segregate and doesn't bleed
- Resistance to freeze – thaw cycle

### APPLICATION PROCEDURE

#### Preparation of Substrate

The concrete surfaces must be sound, clean and dry. It shouldn't be weekend by over – troweling and lack of curing. The concrete should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. The perimeters of repairs to concrete that involve concrete removal and subsequent materials replacement shall be saw cut perpendicular to the repair surface, corroded reinforcements should be cleaned and if needed replaced with new ones. The surfaces should be wetted before application. If there is a water leakage it must be drained or properly plugged.

#### Mixing

Add enough water into a clean mixing bucket bu using a proper water gauge. Add the powder into the bucket slowly and continuously. Mix the fresh mortar with a proper electrical mixer (300 – 600 rpm) for 3 – 4 minutes until having a homogenous consistency.

#### Mixing Ratio

MasterEmaco® T 500 PG	1 kg powder	25 kg Bag
Mixing Water Quantity	0,12-0,13 liter	2,8-3,0 liter
Mixed Density	2,29 kg/liter	

### APPLICATION METHOD

**MasterEmaco® T 500 PG** should be poured in to the form from single opening and continuously. For preventing air gaps in the form, avoid from casting the mortar from multiple openings. Do not remove the forms before 15 minutes. Application thickness should be between 10 – 50 mm. For higher thickness please contact with **Master Builders Solutions** Technical Services.

### COVERAGE

Approximately 22 kg/m<sup>2</sup> for obtaining 10 mm thick layer

### WATCH POINTS

- Repair mortar should be applied in 5 minutes at +20°C
- Cement based materials' pot life and curing times vary depending on the relative humidity, substrate and environment temperature. Reaction gets slow in low temperatures and it causes to extension on pot life and working time. On the other hand high temperatures speed up the reaction, which results to short pot life and working time. For full curing of material, both the substrate and environment temperature shouldn't be under allowed application temperature.
- In case of additional aggregate in fresh mortar, do not increase water ratio more than 10%.
- Do not use **MasterEmaco® T 500 PG** as a screed or concrete topping.

### CLEANING OF TOOLS

After the application all tools should be cleaned with water. **MasterEmaco® T 500 PG** can be cleaned with only mechanical abrasion after hardening.

### PACKAGING

25 kg bag

### STORAGE

Store in original container in cool (+5°C - +25°C)

### SHELF LIFE

12 months under proper storage conditions after production date.

### HEALTH AND SAFETY PRECAUTIONS

It is dangerous to approach the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixtures should not come into contact with skin and eyes; in case of contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

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### TECHNICAL PROPERTIES

Product Chemistry <b>MasterEmaco® T 500 PG</b>	Mineral Fillers and Polymer Modified Cement
Fresh Mortar Density	2,29 g/cm <sup>3</sup>
Compressive Strength (TS EN 12190) 1 hour 1 day 7 days	≥ 10,0 N/mm <sup>2</sup> ≥ 25,0 N/mm <sup>2</sup> ≥ 55,0 N/mm <sup>2</sup>
Bonding Strength (TS EN 1542) to concrete	≥ 2,0 N/mm <sup>2</sup>
Flexural Strength (EN 196-1)	≥ 8,0 N/mm <sup>2</sup>
Application Thickness max. min.	50 mm 10 mm
Pot Life (+23°C)	5 minutes
Elasticity Modulus (TS EN 13412)	≥ 20 Gpa
Application Temperature	+5°C - +30°C
Open to Traffic (+20°C)	1 hour
Service Temperature (at +23°C)	-15°C - +80°C
Fully Cured (at +20°C)	28 days

### DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is only responsible for the quality of the product **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

### CONTACT INFORMATION

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**MasterEmaco® T 500 PG** Technical Data Sheet -Revision  
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<b>EN 1504-3:2005</b> <b>MasterEmaco T 500 PG</b> Yapısal olan ve yapısal olmayan tamir (Structural and Non-Structural Repair Mortar) Yüksek Mukavemetli Menhol Tesviye/Düzleme ve Tamir Harcı (High Strength Manhole Leveling /Smoothing and Repairing Mortar) Sınıf R4 (Class R4) Prensip 3: Betonun Yenilenmesi 3.1 Elle harç uygulaması (3.1 Concrete restoration by applying mortar by hand) 3.2 Yeniden beton dökülmesi (3.2 Concrete restoration by recasting with concrete) Prensip 4: Yapısal Takviye 4.4 Harç veya beton ilavesi (4.4 Structural strengthening by adding mortar or concrete) Prensip 7:Korozyonu önleme veya düzeltme 7.2 Bozunmuş betonun yenilenmesi (7.2 Replacing contaminated or carbonated concrete)	
Basınç Dayanımı (Compressive Strength)	≥ 45 N/mm <sup>2</sup>
Klorür iyonu içeriği (Chloride ion content)	≤ % 0,05
Yapıştırma Suretiyle Oluşmuş Bağ (Adhesive bond)	≥ 2,0 N/mm <sup>2</sup>
Isılı Uyumluluk (Thermal Compatibility) Bölüm 1: Donma-Çözülme (Part-1 : Freeze- Thaw)	≥ 2,0 N/mm <sup>2</sup>
Isılı Uyumluluk (Thermal Compatibility) Bölüm 2: Yüksek sıcaklık farkıyla birlikte yağmur etkisi (Isıl şok) (Part-2: Thunder shower)	≥ 2,0 N/mm <sup>2</sup>
Isılı Uyumluluk (Thermal Compatibility) Bölüm 4: Kuru-Çevrim (Part-4: Dry Cycling)	≥ 2,0 N/mm <sup>2</sup>
Karbonatlaşmaya Direnç (Carbonation Resistance)	NPD
Elastisite Modülü (Elastic Modulus)	≥ 20 GPa
Yangına tepki (Reaction to Fire)	A1
Telikeli maddeler (Dangerous substances)	Madde 5.4'e uygun (Comply with 5.4)