

MasterEmaco® S 285 TIX

Puzolanic Lime Based, Repair Mortar Designed for Historical Masonry Buildings

DESCRIPTION OF PRODUCT

MasterEmaco® S 285 TIX is puzolanic lime based, cement-free, high strength, thixotropic repair mortar for restoration of historical buildings.

Complies with EN 998/2 M15

FIELDS OF APPLICATION

MasterEmaco® S 285 TIX is used in;

- Repair and strengthening of masonry walls
- Repair and strengthening of arches and vaults
- Repair of lime based plasters
- Strengthening of the masonry walls by using FRP bars in joints of masonry walls
- Repair and strengthening of foundations of masonry structures
- Used as a cement-free concrete by adding aggregates in repair of masonry slabs, domes and walls

FEATURES AND BENEFITS


- Cement free
- High mechanical strength
- High bonding strength
- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited
- Ready-pack
- Does not affect the vapour and moisture permeability of the existing building
- Low capillary water absorption
- Efflorescence resistant

APPLICATION PROCEDURE

Preparation of Substrate

The surfaces should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. The surfaces should be wetted before application. If there is a water leakage it must be drained or properly plugged.

TECHNICAL DATA

Product Chemistry	Includes Puzolanic Lime and Well Graded Natural Aggregate.	
Water Vapour Permeability EN 1745	$\mu < 35$	WK
Water-Born Salts UNI 11087	Electical Conductivity $< 80 \mu S.CM^{-1}$ SO ₄ $< \%1$ Na ⁺ $< \%0,05$ K ⁺ $< \%0,05$	
Capillary Water Absorption UNI EN 1015/18	0,2 kg.m ⁻² .min-0,5	
Compressive Strength UNI EN 1015/11	15-20 N/mm ²	
Modulus of Elasticity UNI EN 13412	16,000 N/mm ²	
Application Temperature	+5°C + 40°C	

Mixing

Add enough water into a clean mixing bucket by using a proper water gauge. Add the powder into the bucket slowly and continuously. Mix the fresh mortar with a proper electrical mixer (400-600 rpm) for 4 minutes until having a homogenous consistency. Let the mortar have rest for 4 minutes and re-mix for 30 seconds.

Mixing Ratio

MasterEmaco® S 285 TIX	1 kg powder	20 kg bag
Water Quantity	0,15-0,17 liter	3,0-3,4 liter
Mixed Density	2,07-2,10 kg/liter	

APPLICATION METHOD

MasterEmaco® S 285 TIX should be applied to the prepared surface by using trowel. Application thickness should be between 1-5 cm. After the mortar finishes its first setting, some water should be sprayed onto the mortar and the surface should be finished by using steel or wooden trowel. For thicker applications new layer of the mortar should be applied after first layer hardens. In multiple layer applications each layer should be wetted before the new layer.

Cement-free concrete can be prepared by adding aggregates sized 5-20 mm and in a weight ratio of 30-35% of the mortar in screed application. The water ratio can be increased up to 10-15% more.

Open areas should be protected from the rain, wind, etc. Aggressive whether conditions during the first 24-48 hours after finishing repair by using wet clothes, curing membranes etc.

COVERAGE

18 kg/m² for obtaining 10 mm thick layer.

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WATCH POINTS

- During the application the substrate and environment temperature should be between 5-40°C.
- For full curing of material, both the substrate and environment temperature shouldn't be under allowed application temperature.
- Open areas should be protected from the rain, wind, etc. Aggressive weather conditions during the first 24-48 hours after finishing application.

CLEANING OF TOOLS

After the application all tools should be cleaned with water. **MasterEmaco® S 285 TIX** can be cleaned with only mechanical abrasion after hardening.

PACKAGING

20 kg bag

STORAGE

Store in original container in cool (+5°C--35°C) and dry indoor conditions.

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 irritaion 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.

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® S 285 TIX Technical Data Sheet -
Revision Date: 05/2022

	
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20 1020 – CPR – 040 065835 DOP NO: 02.998.2.002.1 EN 998-2:2016 MASTEREMACO S 285 TIX Kâgir Harcı - Özellikler - Bölüm 2: Kâgir Harcı (Specification for mortar for masonry - Part 2: Masonry mortar) Puzolanik Kireç Esaslı, Tarihi Yapı Onarım Harcı (Pozzolanik Lime Based Historical Building Repair Mortar) G(Genel Kullanım Tasarlanmış Harç) G(General Purpose Designed Mortar)	
Basınç Dayanımı (Compressive Strength)	Sınıf M(15) (Class M(15))
Bağ Dayanımı (Bond Strength)	>0,15 N/mm ²
Klorür İçeriği (Chloride ion Content)	≤0,1%
Su absorpsiyonu (Water absorption)	<0,5 kg/m ² /h
Su buharı geçirgenliği (Water vapour permeability)	15/35 µ
Isıl iletkenlik (Thermal conductivity)	(λ10,dry) 0,83 W/(m.K)
Yangına karşı tepki (Reaction to fire)	A1