

MasterCrete™ N 700

Reprofiling Mortar for Concrete Surfaces

Material Description

MasterCrete™ N 700 is cement based one component, polymer modified repair mortar for finishing the concrete surfaces.

Complies with EN 1504-3/R2

Areas of Application

- Repair and finishing the concrete surfaces,
- Plastering the slabs and ceilings and repair of plasters,
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications,

Characteristics and Benefits

- Mixed with only water and can be applied easily.
- Provides smooth surfaces on concrete.
- Perfect bonding to the concrete substrates.
- Can be applied in wide areas without cracking.
- Thixotropic and can be used in over-head applications.
- Resistant to water and weather conditions.
- Resistant to freeze-thaw cycle.

Processing Method

(A) Preparation of Substrate

The concrete surfaces must be sound, clean and dry. It shouldn't be weakened by overtroweling and lack of curing. The concrete should be free of frost, curing membranes, waterproofing treatments, oil stains, laitance, friable material and dust. If there is a water leakage it must be drained or properly plugged. Defects up to 4 cm depth should be repaired with **MasterCrete™ S88 C** before starting to **MasterCrete™ N 700** applications. Concrete surfaces must be saturated with water before application.

(B) 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 (300-600 rpm) for 4 minutes until having a homogenous consistency. Let the mortar have rest for 4 minutes and re-mix for 30 seconds.

Technical Properties

Structure of the Material	Mineral Fillers and Polymer Modified Cement	WK
Color	Grey	
Compressive Strength (TS EN 196) (28 days)	>15 N/mm ²	
Flexural Strength (28 days) (TS EN 196)	>3,0 N/mm ²	
Bonding Strength to concrete (TS EN 1542) (28 days)	>0,8 N/mm ²	
Application Thickness	Min. 1 mm Max. 5 mm	
Application Temperature	+5°C + 60°C	
Pot Life (20°C)	30 minutes	
Fully Cured (20°C)	28 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.

Part of

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Mixing Ratio

MasterCrete™ N 700	Amount of Mixture Water	Density of Mixture
For 1 kg Powder	0,21 liter	1,802 kg/liter
For 20 kg Bag	4,20 liter	

(C) Processing

MasterCrete™ N 700 should be applied to the prepared surface by using a steel trowel. Application thickness should be between 1-5 mm. After the mortar finishes its first setting, some water should be sprayed onto the mortar and the surface should be finished with using steel or wooden trowel. Open areas should be protected from the rain, wind, etc. Aggressive weather conditions during the first 24-48 hours after finishing repair by using wet clothes, curing membranes etc.

Consumption

1.51 kg/m² for obtaining 1mm thick layer.

Point to Consider

- Mixed mortar must be used in 30 minutes in 20°C. Working time will be 20 minutes in 30°C.
- Open areas should be protected from the rain, wind, etc. Aggressive weather conditions during the first 24-48 hours after finishing repair.
- Cement based materials' pot life and curing times vary depending on the relative humidity, substrate and ambient temperature.
- Reaction gets slow in low temperatures and it causes 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 ambient temperature shouldn't be under allowed application temperature.

Cleaning of Tools

All the tools and equipments must be cleaned by water after the application. After **MasterCrete™ N 700** is hardened, it can only be removed from the surface mechanically.

Packaging

MasterCrete™ N 700 is available in 20 kg polyethylene reinforced kraft bag.

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Storage

Must be stored in unopened original packing, and in cool and dry environment protected from freezing. In short-term storing, maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

Health and Safety

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 mixture should not come into contact with skin and eyes; in case of a 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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Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** 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.

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TS EN 1504-3

Yapışsal olmayan tamir - R2

(Non-Structural Repair Mortar)

3.1 Elle harç uygulaması / Concrete restoration by applying mortar by hand

Başınç Dayanımı (Compressive Strength)	≥ 15 N/mm ²
Klorür İçeriği (Chloride ion Content)	≤ % 0,05
Adezyon Dayanımı (Adhesive Bond)	≥ 0,8 N/mm ²
Kontrollü Büzülmə / Genleşme (Restrained Shrinkage/Expansion)	≥ 0,8 N/mm ²
Yangına tepki (Reaction to fire)	A1
Tehlikeli maddeler (Dangerous substances)	Madde 5.4'e uygun (Comply with clause 5.4)

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