

MasterCrete® PRI 300

Anti-Corrosion Coating and Primer

Material Description

MasterCrete® PRI 300 is cement based one component, polymer modified, anti-corrosion coating and primer.

Areas of Application

- Corrosion protection of the reinforcement,
- Priming the concrete substrates prior to repair mortar applications.

Characteristics and Benefits

- Mixed with only water and can be applied easily.
- Perfect bonding to the concrete and steel.
- High mechanical strengths.
- Protects the reinforcement against humid.

Processing Method

(A) Preparation of Substrate

Concrete Surfaces

Cement based surfaces of the buildings to be repaired must be strong, load bearing, dust free and clean. The surface should be thoroughly cleaned from all kinds of oil, grease, rust and paraffin residues that will weaken adherence. The

application surface should be saturated with water but no free water should remain on the surface.

Steel Surfaces

Steel surfaces should be thoroughly cleaned from all kinds of oil, grease and rust residues that will weaken adherence and a suitable surface should be obtained by sandblasting. In cases where it is not possible to work with sandblasting, cleaning is carried out with an air blasting gun or bowl wire brush. In cases where the surface is greasy and oily, degreasers are used for cleaning.

(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.

Mixing Ratio

MasterCrete® PRI 300	1 kg powder	20 kg Bag
Water Quantity	< 0,3 liters	< 6,0 liters
Mixed Density	~2,0 kg/lt	

Technical Properties

Structure of the Material	Mineral Fillers and Polymer Modified Cement	
Color	Grey	WK
*Compressive Strength (28 days) (TS EN 196)	>25 N/mm ²	
Bonding Strength (7 days)	To Concrete > 1,5 N/mm² To Steel > 1,0 N/mm²	
Application Temperature		
Pot Life (20°C)	60 minutes	
Fully Cured (20°C)	28 days	

*Values above: +230C and 50% relative humidity. High temperatures shorten the time, low temperatures lengthen the time.

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(C) Processing

Primer

The prepared mortar is applied to the surface with a brush with a thickness not exceeding 1 mm in a single coat. On very absorbent surfaces, a second coat can be applied after the first coat has dried (after 3-4 hours). Application 30 minutes after completion, concrete surfaces can be coated with repair mortar.

Anti-Corrosion Coating

The prepared mortar should be applied all over the previously prepared iron reinforcement with a soft paint brush. To obtain a 2 mm thick coating, the application should be done in two coats. The second coat should be applied after the first coat is dry enough not to be scratched while cleaning with a brush. (3-4 hours at +23°C). 30 minutes after the application of the second coat, concrete surfaces and reinforcements should be covered with repair mortar.

Consumption

Approx. 1,55 kg powder for 1 litre mortar.

Point to Consider

- MasterCrete® PRI 300 should be applied in 60 minutes in 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.

Cleaning of Tools

After the application all tools should be cleaned with water. MasterCrete® PRI 300 can be cleaned with only mechanical abrasion after hardening.

Packaging

MasterCrete® PRI 300 is available in a 20 kg 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 (+5°C-+30°C) 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

Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application. Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application. If such a contact occurs, it must be washed by soap and plenty of water. Consult a physician urgently if swallowed. Food and drink must be kept outside the application areas. Must be stored away from children. Please look at the Material Safety Data Sheet for detailed information.

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

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