



The Chemical Company

# MBT-MBRACE® PRIMER

## Epoxy Based Primer for Mbrace® FRP System

### Description of Product

**MBRACE® PRIMER** is epoxy based, solvent free, low viscosity primer developed for **Mbrace® FRP** System.

### Fields of Application

- Priming the concrete surfaces under FRP (carbon, glass and aramide) sheets and laminates.

### Features and Benefits

- Easy to apply.
- Low viscosity.
- High strength.
- Excellent bonding to concrete substrates.
- Solvent free.

### Application Procedure

#### Preparation of Substrate

The mineral based substrates (concrete, stone, brick, tile etc.) must be sound, clean and dry. It shouldn't be weakened 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. If there is a water leakage it must be drained or properly plugged. The surfaces must be dry (moisture content of the concrete should be < 4%). In case of low strength concrete ( $\sigma_{tc} < 1.5 \text{ N/mm}^2$ ), the loosen parts of concrete must be broken and the surfaces should be reprofiled with structural repair mortars in **Emaco® S** range. Before the primer application let the repair mortars cure at least 7 days at 20°C.

### Technical Data

Product Chemistry	<b>MBRACE® PRIMER</b> Compt. A <b>MBRACE® PRIMER</b> Compt. B	Epoxy Resin Epoxy Hardener	
Colour		Clear	LX
Mixed Density		1.08 ± 0.024 kg/liter	
Solid Content		100%	
Flexural Strength (20°C) TS EN 196 (7 days)		>20 N/mm <sup>2</sup>	
Bonding Strength (7 days) to concrete		> $\sigma_{tc}$ N/mm <sup>2</sup>	
Application Temperature		+5°C - +30°C	
Pot Life	-1°C	8 hours	
	7°C	2 hours	
	21°C	45 minutes	
	32°C	25 minutes	
Application Thickness		0.1 - 0.2 mm	
Recoat After		12 - 24 hours	
Fully Cured at 20°C		7 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.



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## Mixing

**MBRACE® PRIMER** has two components in pails, produced according to right mixing ratio. Material temperature should be between 15-25 °C before mixing. Component B should be added into the Component A without any remaining material in the pail. It should be mixed with using a proper mixer (~300rpm) for polymer mixing. Mix the components at least 3 minutes to have a homogenous mixture.

## Mixing Ratios

<b>MBRACE® PRIMER</b>	<b>Compt. A</b>	<b>Compt. B</b>
Quantity	6,90 kg	3,10 kg
Mixed Density	1,08 kg / liters	

## Application Method

**MBRACE® PRIMER** should be applied to the concrete surfaces by using a soft roller. Application thickness should be 0.1 - 0.2 mm.

## Coverage

0.2 kg/m<sup>2</sup>

## Watchpoints

- During the application the substrate and environment temperature should be between 5-30°C.
- **Mbrace® FRP** application should be done by approved experts.
- Resinous 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.

- **MBRACE® PRIMER** is provided in ready to mix pails. Do not add any solvent etc. into the mixture during the application.
- The amount of mixed resin should be such that it may be applied within its useful workability time.
- Mixing should be made with proper mixers and do not allow mixing by hand.

## Cleaning of Tools

After the application all tools should be cleaned with a proper detergent or solvent such as thinner. **MBRACE® PRIMER** can be cleaned with only mechanical abrasion after hardening.

## Packaging

10 kg set  
Component A : 6.90 kg pail  
Component B : 3.10 kg pail

## Storage

Store in original container in cool (+5°C - +25°C) and dry indoor conditions.

## Shelf Life

18 months under proper storage conditions after production date.

## Health and Safety Precautions

It is dangerous to get close to the store areas with fire. The store must be well ventilated. Work clothes, protective gloves, glasses and mask defined in Labour Laws must be used during the application. Avoid from material to contact with skin and eyes. In case of contacting wash your skin with water and go to doctor immediately

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Don't bring any food and drink to the application area. Store the material away from the children. For further information Material Safety Data Sheets should be read.

## **Disclaimer**

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