

Karbon Fix EB 470

Construction Chemicals > Repair Mortars > Epoxy Resin Based Ones

It is a two-component, solvent-free epoxy resin-based, thixotropic adhesive specifically developed for bonding carbon fabric.

■ Fields of Application

- For bonding carbon fiber reinforcement fabrics
- For repairing and bonding all types of materials such as concrete, stone, and marble

■ Advantages

- It has a high ability to saturate the fabric and excellent adhesion
- Can be applied on vertical surfaces without sagging
- Suitable for manual saturation
- Resistant to chemicals and abrasion
- Adheres excellently to concrete
- Has high mechanical properties
- Does not require a primer
- Does not contain solvents
- It is a material that is very easy to apply
- It is impermeable to water and gas

1 Surface Preparation

The application surface must be clean, dry, and free from all dust, dirt, weak and loose particles, cement laitance residues, oil, and grease. The concrete substrate should be solid and have sufficient compressive strength (at least 25 N/mm²) and pull-off strength (at least 1.5 N/mm²). Damaged and unsound areas should be repaired using Merks repair mortars to create a smooth surface.

2 Mortar Preparation

The product is two-component, so it is recommended to mix only the amount that will be used, considering the pot life of the mixture. Excess mixtures will become unusable after the pot life has expired. After adding component B to component A, mix with a low-speed electric mixer for 2-3 minutes (300 rpm) until a homogeneous color is obtained.

3 Consumption

For 300 g/m² fabric, it is 1-1.5 kg/m².

4 Shelf Life

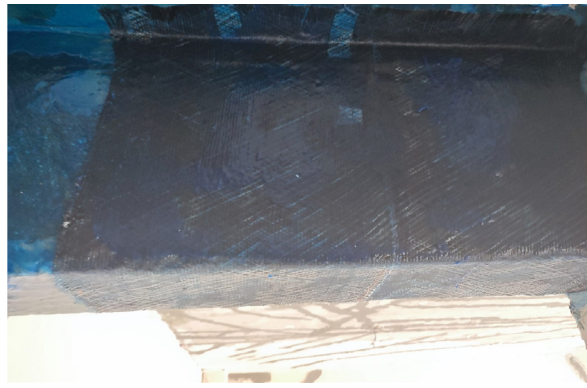
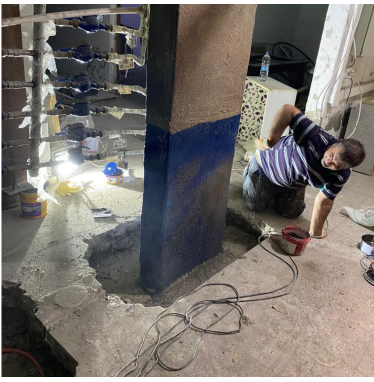
At least 12 months when stored in dry, moisture-free conditions and protected from freezing.

5 Application

When mixing and applying, use rubber gloves and safety goggles to protect your skin and eyes. Do not add any foreign substances or water to the product. In extremely hot weather, mix only the amount that can be used immediately, as the product will harden quickly after mixing. Do not apply if the temperature is below +5°C. Cut and prepare the carbon fiber according to the needs. Apply MERKS CARBON FIX EB 470 epoxy resin to the concrete surface using a spatula or roller. Place the carbon fiber onto the applied Carbon Fix EB 470, ensuring no air bubbles remain. Use a serrated roller to press the epoxy resin from beneath the carbon fiber, ensuring it spreads evenly across the entire surface. If the epoxy resin is insufficient, apply another layer of Carbon Fix EB 470 to fully saturate the carbon fiber fabric. If you wish to apply plaster over the completed reinforcement, sprinkle silica sand onto the finished surface to prepare it for plaster application.

6 Packaging

Component A: 3.7 kg, Component B: 1.3 kg, produced in metal containers.



TECHNICAL DATAS

Color	Blue	-
Density	1,25±0,05 g/cm ³	ASTM D1475 /DIN 53217 / ISO 2811
Application Temperature	(+5°C) - (+35°C)	-
Mixing Ratio (by Weight)	3,7:1,3	-
Pot Life	30 min	-
Solid Matter	%100	-
Adhesion to Concrete	>3 N/mm ²	EN 1542
Adhesion to Steel	>3,5 N/mm ²	EN 1542
Compressive Strength	80 Nmm ²	TS EN 196
Bending Strength	40 Nmm ²	TS EN 196
Tensile Strength	30 Mpa	TS EN 196
Achieving Full Strength	7 Days	-

Note: The technical specifications listed above are based on test results conducted at 230°C and 50% relative humidity. Values may vary under different temperature and humidity conditions

8 Health and Safety Measures

During application, keep flammable, combustible, and ignition-prone products away. No smoking is allowed. Ensure the application area is continuously ventilated. Use protective equipment such as goggles and gloves during application. In case of eye contact, rinse thoroughly with plenty of water. For detailed information, request the Material Safety Data Sheet. Store in places inaccessible to children. The product should be used by professional users, considering the information provided in the technical data.