

BET10® CARBON LAMINATE ADHESIVE

Epoxy Based Adhesive

Product Technical Data Sheet



GENERAL FEATURES

DESCRIPTION

BET10® Carbon Laminate Adhesive is a solvent-free, high-strength adhesive. It is an epoxy-based, two-component adhesive designed specifically for the BET10® Carbon Laminate system.

FIELDS OF APPLICATION

BET10® Carbon Laminate Adhesive is used for bonding carbon fiber reinforced polymer BET10® Carbon Laminate plates.

ADVANTAGES

- It provides high initial and final strength.
- It is easy to mix and apply.
- It has high wear and shock resistance.
- It does not require primer.
- It provides high creep resistance under continuous load.
- Thanks to its thixotropic structure, it does not sag in vertical and overhead applications.
- It cures without shrinkage, meaning it is not affected by moisture.
- Its components are in different colors, making mixing control easy.
- It stands out with its high strength property.
- It is impermeable to liquids and water vapor.

PREPARATION OF THE SURFACE

Before starting the application, carbon fiber polymer plates should be cut according to the dimensions specified in the project. The surfaces of the plates should be cleaned from foreign substances such as oil, dirt, and grease using solvents such as thinner.

MIXING

BET10® Carbon Laminate Adhesive is supplied in ready-to-use kits according to the mixing ratio. Before starting the mixing process, the temperature of the materials should be between +15 and +25°C. Component B should be completely poured into Component A, ensuring that no material is left in

APPLICATION

Component B. The mixture should be stirred with a suitable mixing nozzle and at approximately 300 rpm using a mixer for at least 2-3 minutes until a homogeneous mixture is obtained without any unmixed material at the edges or bottom of the packaging.

APPLICATION

BET10® Carbon Laminate Adhesive should be applied onto pre-prepared smooth surfaces of carbon fiber polymer plates (laminate) and primed surfaces using a spatula with a thickness of 1-1.5 mm. Then, the carbon fiber polymer plates with adhesive applied should be fixed in place by gently stretching them towards the direction of the fibers and without causing any swelling. The plates should be firmly attached to the concrete surface without any gaps between the fibers and the surface by pressing them with a roller according to the direction of the fibers.

In areas exposed to sunlight, appropriate cement-based repair mortars should be applied no later than 7 days after application. If fire resistance is required, the plates should be covered with suitable thickness of fire-resistant special mortars.

THINGS TO CONSIDER

- BET10® FRP systems should only be applied by expert applicators.
- Working and reaction times of resin-based systems are affected by ambient and surface temperature. Chemical reaction slows down at low temperatures, which extends pot life, recoating time, and working time. At the same time, increased viscosity leads to higher consumption. High temperatures, on the other hand, accelerate chemical reaction and shorten the above-mentioned times accordingly. Ambient and surface temperature should not fall below the allowed minimum temperature for the material to complete its full cure. After completion of the coating, it should be protected from direct water contact for at least 24 hours.

TECHNICAL DATA

BET10® Carbon Laminate Adhesive Component A BET10® Carbon Laminate Adhesive Component B	Epoxy Resin
	Epoxy Hardener
Mixture Density	1,65± 0,05 kg/lit
Mixing Ratio	1,00 : 1,00
Consumption	1-1,5kg/m²
Compressive Strength (7 Days)	>85N/mm² (TSE 196)
Flexural Strength (7 Days)	>25N/mm² (TSE 196)
Adhesion Strength (7 Days)	>3N/mm²
Pot Life (20°C)	30 Minutes
Finally Cured at (20°C)	7 Days
Application Temperature	+5°C - +30°C (concrete)
Recoat Time	min 48 hours - max 7 days

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THINGS TO CONSIDER

- During application, ambient and surface temperature should not be below +5°C or above +35°C.
- Mixing should always be done with appropriate mechanical mixers. Hand mixing should not be performed.
- In special cases (different weather conditions, various application areas, etc.), if any application not mentioned in the data sheet is to be made, BET10® Construction Chemicals Technical Service should be consulted.

CLEANING OF TOOLS

After application, the tools and equipment used should be cleaned with solvent. Once cured, BET10® Carbon Laminate Adhesive can be mechanically removed from the surface.

PACKAGING

BET10 Carbon Laminate Adhesive

6 kg kit

Component A: 3.00 kg tin can

Component B: 3.00 kg tin can

STORAGE

It should be stored in its original unopened packaging, in a cool and dry place, protected from frost. During short-term storage, no more than 3 pallets should be stacked on top of each other and shipped on a first-in, first-out basis. During long-term storage, pallets should not be stacked on top of each other.

SAFETY PRECAUTIONS

Preventive measures taken for conventional chemical products should be considered when using this product. After the work is completed or interrupted, hands should be washed thoroughly with plenty of water, and food, drink, and smoking should be avoided. Special safety information regarding the use and transportation of this product is available in the Material Safety Data Sheet. Relevant Health and Safety Information Documents should be consulted for complete information on health and safety issues. This product and its packaging should be disposed of in accordance with local laws and regulations. This responsibility belongs to the end user of the product.

SHELF LIFE

The shelf life is 18 months from the production date under appropriate storage conditions. Opened packages should be stored under appropriate conditions and used within one week.

DISCLAIMER

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