

MBrace[®] Laminate Adhesive

Adhesive for MBrace FRP Laminate System

Description

MBrace Laminate Adhesive is the adhesive for MBrace FRP LAMINATE SYSTEM.

MBrace Laminate Adhesive is a two component solvent-less epoxy system which when mixed yields a non slumping, fast curing adhesive.

MBrace FRP LAMINATE SYSTEM is based on ready to use carbon LAMINATE that provides high tensile strength combined with light-weight and is used for flexural reinforcement (plate bonding) of concrete and wood members.

Uses

For use as a structural adhesive when used in conjunction with MBrace Laminate.

- Fixing MBrace low modulus laminate
- Fixing MBrace high modulus laminate

Advantages

- High strength
- Non - slump
- Strong Adhesive
- Chemical resistant
- Impact Resistant
- Non shrink
- Epoxy based
- Easy to use

Typical properties

Aspect	: Grey paste
Mixed density	: 1.85 ± 0.05
Volume solids	: 100%
Mixing ratio, by weight	: 100(Base): 75 (Hardener)
Coverage	: 3 kg/m ² at 1.5 mm thick
Pot Life	: 75 Minutes at 25°C : 40 Minutes at 40°C
Initial Cure	: 12 Hours at 25°C : 6 Hours at 40°C
Full Cure	: 5 Days at 25°C : 3 Days at 40°C
Compressive Strength (ASTM C579)	: > 40 MPa at 1 Day : > 65 MPa at 7 Days
Flexural Strength (BS:6319, pt 3)	: > 25 MPa at 7 Days
Adhesive bond strength to concrete (ASTM D4541)	: > 2.5 MPa

Directions for use

Temperature Requirements

- Substrate temperatures: 15°C – 35°C
- Material temperatures: 15°C – 30°C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In the cold weather conditions, pre-condition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 20-25°C will reduce the possibilities of flash/slow setting and other defects.

Surface preparation

The surfaces of elements that are still in good condition or restored with MBrace Laminate Adhesive should be profiled or roughened. With degraded structures, the whole layer should be removed by scarifying, hydrodemolition or similar and then structural restoration carried out using suitable structural grade repair mortar from EMACO or CONGRESIVE range.

Remove oils, grease, dust or any other loose material from the surface. Remove laitance to expose aggregate. Apply the layer of MBrace Primer by roller or brush and wait until dry for the Adhesive application.

Clean up the LAMINATE surface with CLEANING SOLVENT NO. 2.

Mixing

Mechanically mix component A before adding component B. When component B has been added, mix for approximately 3 minutes until a smooth mix has been obtained.

Application

Apply one layer of MBrace Laminate Adhesive 1.5 mm thick on both the surfaces (concrete and Laminate). Apply MBrace Laminate and using the relative roller, exert a constant pressure by moving the tool both ways in the direction of the fibres. Clean up.

Curing

MBrace Adhesive will cure at temperatures as low as 5°C although at lower temperatures cure is retarded.

Equipment Cleaning



The Chemical Company

Tools must be cleaned immediately after use with CLEANING SOLVENT NO. 2.

Coverage

One 6 kg pack is sufficient to cover 2 m² area at 1.5mm thickness.

Packaging

MBrace Laminate Adhesive is available in 6 kg units.

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as recommended.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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