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MBRACE[®] LAMINATE ADHESIVE HT65

Adhesive for Mbrace[®] FRP 'Laminate' System at Elevated Temperatures

Description of Product

MBRACE[®] ADHESIVE HT65 is an adhesive for MBRACE[®] FRP LAMINATE SYSTEM for use at elevated temperatures.

MBRACE[®] FRP LAMINATE SYSTEM is based on ready to use carbon LAMINATE that provides a high tensile strength that is higher than steel bars used in the precast industry and is used for flexural reinforcement (plate bonding) of concrete and wood members.

Fields of Application

For use as a structural adhesive when used in conjunction with MBRACE[®] LAMINATE SYSTEM

- Fixing MBRACE[®] Low Modulus Laminate
- Fixing MBRACE[®] High Modulus Laminate

Features and Benefits

- High Strength
- Non-Slump
- Strong Adhesion
- Chemical Resistant
- Impact Resistant
- Non Shrink
- Epoxy Based
- Easy to use
- Supplied in pre-weighed units

Technical Data/Typical Properties

Performance of MBRACE [®] LAMINATE ADHESIVE HT65	
Composition	Two component epoxy based adhesive
Colour	Grey
Specific Gravity @ 20°C	1.80
Glass transitional temperature	>65°C
Modulus of elasticity	10 GPa
Lap shear strength to CFRP	>17MPa
Water Absorption	< 0.3 %
Tensile strength	32 MPa
Compressive strength	>60 MPa
Flexural strength	>35 MPa
Full Cure 25°C	7 days
Bonding, ASTM D4541	
▪ Concrete	>3.5 MPa
▪ Steel	> 5 MPa
Pot Life @	
25°C	50 mins
40°C	25 mins
Cure Rate @	
25°C	5 hours
40°C	2 hours
Full Cure @	
25°C	5 days
40°C	3 days

Note:

Values above are typical mean values obtained from regular testing. Some variation may occur dependant on batch, size, and test method sensitivity. Allowance should be made for this in the design process.



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The designer is advised to satisfy himself, by prior testing if necessary, that the grade chosen will conform to the performance criteria for his specific design.

Application Procedure

Preparation of Substrate

The surfaces of elements that are still in good condition or restored with putty from the EMACO®/MBRACE® range should be sanded down. With degraded structures, the whole of the defected layer should be removed by scarifying, hydrodemolition or such like and then structural restoration carried out with the mortar of the EMACO® range.

Remove oils, grease, dust or any other loose materials from the surface.

Priming (not normally required)

Apply one coat of MBRACE® PRIMER by roller or brush and wait until dry to apply the second coat.

If necessary, apply a coat of MBRACE® PUTTY using a putty knife.

Clean up the LAMINATE surface with suitable solvent

Mixing

Mechanically mix component A before adding component B (mixing ratio 2A: 1B by weight).

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.

Cleaning

Tools must be cleaned immediately after use with FEB CLEANING SOLVENT.

Curing

MBRACE® ADHESIVE HT65 will cure at temperatures as low as 10°C although at lower temperatures cure is retarded.

Coverage

A 5.0 kg pack is sufficient to cover 1.1 m² at 2.5mm thickness

An 8.75 kg pack is sufficient to cover 2m² at 2.5mm thickness

Packaging

Available in 5 kg and 8.75 kg units

Storage

Store at ambient temperatures in cool, dry warehouse conditions in manufacturer's sealed containers.

Shelf Life

Up to 12 months if stored according to manufacturer's instructions.

Watchpoints

Surfaces exposed to U.V. rays should be protected within two days (maximum seven days) with the special product from the MASTERSEAL® line in order to ensure perfect bonding between the protective layer and FRP.

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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

Disclaimer:

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.