

# MasterBrace 4000®

## Epoxy adhesive for MasterBrace Laminate System

### DESCRIPTION

**MasterBrace 4000** is a two component solvent-less epoxy system which when mixed yields a thixotropic fast curing adhesive

### RECOMMENDED USES

- For use as a structural adhesive when used in conjunction with **MasterBrace Laminates**.

### FEATURES AND BENEFITS

- **Excellent adhesion to MasterBrace laminate and substrate** – Ensures transfer of loads
- **Solvent free** –Low VOC and non-shrink
- **Pre-packaged** – avoids on site errors ensuring quality control
- **Good chemical resistance** – durable strengthening solution
- **Cures at low temperatures** – suitable for a range of climates

### 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 <sup>2</sup> 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

In the cold weather conditions, pre-condition the materials by keeping it in a heated room. In hot weather conditions, some air-conditioned storage is required. Pre-condition the materials at 20-25°C to reduce possibilities of flash/slow setting and other defects. Do not apply

MasterBrace 4000 if ambient temperature is less than 5°C.

### APPLICATION

#### Surface preparation

Remove all grease, oil, dust residual curing compound, mould release agent or other contaminants that could impair adhesion.

Spalled concrete should be cut back to sound concrete and made good suitable **MasterEmaco** repair products.

Laitance should be removed preferably by light sweep blasting or hydro-jetting. Mechanical wire brushing may be appropriate for small areas. Apply **MasterBrace P 3500** as primer using roller or brush and wait until dry for the adhesive application

#### 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 of MasterBrace 4000

Apply one layer of **MasterBrace 4000** at 1.5 mm thick on both the surfaces (substrate and Laminate). Apply the selected MasterBrace Laminate onto the **MasterBrace 4000** coated substrate and using the relative roller, exert a constant pressure by moving the tool both ways in the longitudinal direction of the fibres.

### ESTIMATING DATA

Typical consumption of 0.55kg/Linear meter for a 100mm wide **MasterBrace laminate** at a total thickness of 3mm

### PACKAGING

**MasterBrace 4000** is available in 6kg packs

### SHELF LIFE

**MasterBrace 4000** can be stored in tightly closed original containers for 12 months at a moderate temperature.

### PRECAUTIONS

Please refer the Material Safety Data Sheet for handling and storage of this product.

MasterBrace4000/01/0313

# MasterBrace 4000<sup>®</sup>

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