

# MasterBrace<sup>®</sup> Laminate

## Ready to use Carbon Fibre Reinforced Polymer laminates

### MATERIAL DESCRIPTION

**MasterBrace Laminates** are ready to use pultruded carbon fibre laminates (plates) that provide high tensile strength for flexural reinforcement (plate bonding) of concrete, metal, wood and other construction materials.

### RECOMMENDED USES

- Increase the load-bearing capacity (e.g. structural conversion following a change in capacity load).
- Reduce deflection to structural elements (increase in rigidity).
- Increase fatigue resistance.
- Limit or cover the fissuring (cracking) states (increase in durability)

### FEATURES AND BENEFITS

- **High strength to weight ratio** – provides additional strength without adding to the 'dead load' of a structure
- **Small profile** – does not reduce overhead clearance in buildings or parking structures
- **Available in a range of cross sections** – allows for cost effective design
- **Lightweight** – easily applied using hand application techniques
- **Fast curing adhesive** – quick installation avoiding costly downtime of structures or buildings
- **Simple installation** – can be applied insitu to structures in use

### APPLICATION

#### Substrate preparation

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

For concrete laitance should be removed preferably by light sweep blasting or hydro-jetting. Mechanical wire brushing may be appropriate for small areas.

Spalled concrete should be cut back to sound concrete and made good with **MasterBrace 2200** or suitable MasterEmaco repair products.

#### Installation of MasterBrace Laminates

Remove protective peel ply film from the surface of Laminate to be adhered. If the grade of laminate being used does not have a peel ply then clean the laminate surface with Solvent No. 2

Apply one layer of **MasterBrace 4000** approximately 1 – 2 mm thick onto the substrate & laminate surfaces

Apply the **MasterBrace Laminate** to the substrate and

using a roller, exert a constant pressure by moving the tool both ways in the longitudinal direction of the laminate.

### PACKAGING

**MasterBrace Laminates** are available in 50m & 100m rolls with the following width/thickness (mm/mm):

#### MasterBrace Laminate (all grades except 460/1500):

Reference	Width (in mm)	Thickness (in mm)	Section (in mm <sup>2</sup> )
15x2.5*	15	2.5	37.5
20x2*	20	2	40
20x3*	20	3	60
50x1.2	50	1.2	60
50x1.4**	50	1.4	70
80x1.4	80	1.4	112
100x1.4**	100	1.4	140
150x1.4	150	1.4	210

#### MasterBrace Laminate 460/1500:

Reference	Width (in mm)	Thickness (in mm)	Section (in mm <sup>2</sup> )	Weight (gm/m)
50x2	50	2	100	182
50x4	50	4	200	364
100x2	100	2	200	364
100x4	100	4	400	728

**MasterBrace Laminates** are also available in other customer sizes based on the project requirement. Please consult your local Master Builders Solutions representative for such requirements.

### 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.

### PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

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® = registered trademark of a MBCC Group member in many countries of the world

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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