MasterStrength PRI 3500

Epoxy primer for MasterStrength CFRP systems

Material Description

MasterStrength PRI 3500 is a two component solvent-less epoxy penetrating medium viscosity primer and structural bonding agent. It is designed to improve the bond strength of the CFRP composite system to the substrate in long term especially in wet-dry cycles.
To comply with AS 5100.8 requirements; priming shall be applied in all FRP applications for laminate, bar and fabric systems, unless directed otherwise.

Areas of Application

For use as a primer for the concrete prior to the use of the **MasterStrength 4000** adhesive when used in conjunction with **MasterStrength LAM, ANC and BAR** and for **MasterStrength FIB** prior to the application of **MasterStrength 4500** saturant.

Characteristics and Benefits

- Excellent adhesion to the substrate – ensures transfer of loads.
- Solvent free – low VOC and non-shrink.
- Pre-packaged – avoids on site errors ensuring quality control.
- Cures at low temperatures – suitable for a range of climates.

Properties

Performance Properties	AS5100.8 Table A2.3.4	MasterStrength PRI 3500 *
Bond Strength	≥1.5 MPa	> 3.5 MPa
Tensile Strength	≥25MPa	70.5 MPa
Flexural E-modulus	≥1000MPa	3600 MPa
Viscosity	≤6000 cps	1000 cps
Application Temperature	5-35°C	5-35°C
Compressive Strength	N/A	70 MPa
Flexural Strength	N/A	44 MPa
Hardness -Shore D	N/A	80

**Values are based on typical laboratory test results after 7 days curing at 23°C*

Application Properties	Results
Mixing Ratio	3 part part A : 1 part part B
Solids by volume	100%
Specific gravity (mixed)	1.08 ± 0.024 kg/L
Colour	Clear
Thickness range	0.1 – 0.2 mm
coverage approximately	6m²/L
Recommended layers	1
Pot life	7°C: 1 hour 23°C: 35 min 32°C: 25 min
Tack free	7°C: 9 hour 23°C: 5 hour 32°C: 3 hour
Full Cure time	7 days

Application

For detailed application methodology, please refere to "CFRP Structural Strengthening, MasterStrength systems" application guide.

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 **MasterCrete** repair products.
Laitance should be removed preferably by captive shotblasting or hydro-jetting. Mechanical wire brushing may be appropriate for small areas. A surface profile of CSP 3-4 is desired.

Mixing

Mechanically mix Part A before adding Part B. When component B has been added, mix for approximately 2 minutes until a homogenous mix has been obtained.
Application of **MasterStrength PRI 3500**.

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Apply **MasterStrength PRI 3500** by brush or roller to the prepared substrate at a coverage of 6m²/L. If using as a primer for the MasterStrength fabric system, apply the satuarant **MasterStrength 4500** whilst the **MasterStrength PRI 3500** is still tacky.

MasterStrength 4000 laminate adhesive should be applied to the **MasterStrength PRI 3500** while it is still tacky. Do not allow to become tack free before application of the **MasterStrength 4000**. Otherwise, sand seed the **MasterStrength PRI 3500** whilst wet and apply **MasterStrength 4000** within 48 hours. For further details see the Application Guide.

Estimating Data

Typical consumption:

MasterStrength PRI 3500 Wet Film Thickness 0.15mm		
Kit	Yield (m^2 per L)	Coverage (m^2 per kit)
5L	4-6	20-30

Packaging

MasterStrength PRI 3500 is available in a 5L packs of 3.75L Part A and 1.25L Part B.

Storage & Shelf Life

MasterStrength PRI 3500 can be stored in tightly closed original containers for 24 months at a moderate temperature.

Precautions

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

Disclaimer

MB Solutions Australia Pty Ltd
ABN 69 634 934 419
Suite 102, 2 Burbank Place
Norwest NSW 2153

Freecall: 1300 227 300
www.master-builders-solutions.com/en-au

MB Solutions New Zealand Ltd
45C William Pickering Drive
Albany, Auckland
New Zealand

Phone: +64 9 414 7233

Emergency Advice:
1300 954 583 within Australia (24hr)
0800 001 607 within New Zealand