

T E C H N I C A L D A T A

#500 BONDING EPOXY

DESCRIPTION

100% Solids moisture insensitive epoxy designed to bond carbon fiber fabric to concrete. Unique wetting properties allow for maximum penetration.

COMPLIANCES

ASTM C881
TYPE I, II, IV AND V
GRADES 1, 2, and 3
CLASS B & C

Manufacturer

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PROPERTIES OF #500 BONDING EPOXY

Mix Ratio	2:1 by volume
Pot Life	20 minutes
Gel Time	ASTM C-881 35 minutes
Initial Cure	ASTM C-881 3-5 hours
Final Cure	24-48 hours

@75°F

Mixed Viscosity 860 cps.

Cured Properties

Compressive Strength	ASTM D-695	11,100 psi
Compressive Modulus		289,000 psi
Flexural Strength		14,900 psi
Tensile Strength	ASTM D-638	9,100 psi
Elongation	ASTM D-638	4.7% min.

Benefits

- Easy 2:1 mix ratio
- No shrinkage
- Excellent adhesion to concrete
- Deep penetrating and tenacious bond

How to use

Surface Preparation: Structural repair via adhesion requires use of diamond-wheel grinder to open the pores of the concrete. Surface must be clean and sound. Remove all dirt, grease, wax, curing compounds and other foreign matter. Remove water and dust from all surfaces with an oil free air blast prior to application.

Mixing: Mix each component separately before blending two Parts A with one Part B by volume in a clean pail. Mix thoroughly for 3 minutes with a low speed drill.

Mix only the quantity that can be used within 20 minutes. If using automated or manual injection equipment, do not allow mixed material to reside in static mixing head for more than 10 minutes or blockage may result.

Application:

To gravity feed cracks on grade– sweep dry sugar sand into a V notched crack. Fill approx. 1/4". Pour neat #500 into crack until completely filled. Top off as necessary.

To gravity feed cracks above grade– seal underside of slab with epoxy surface sealer. When paste is set up, pour neat #500 into crack. Top off as necessary.

As carbon fiber bonding agent— using a small thin nap roller apply a coat of #500 approximately 1 inch wider than fabric, lay fabric up over crack with fabric tows at a 90 degree angle from crack. Using roller from the middle of the fabric roll out all air pockets. Apply a second coat of #500 over the entire fabric area. Allow to cure.

To anchor bolts, dowels and pins– Annular space around bolt should not exceed 1/8"; depth of embedment is typically 10-15 times the bolt diameter.

Limitations/Precautions

- Temperature of substrate must be above 40°F.
- New Concrete must be at least 28 days old.
- Do not thin, solvents prevent proper cure.
- Do not seal exterior slabs on grade

Component A Irritant– prolonged contact with skin may cause irritation. Avoid eye contact.

Component B Corrosive– Contact with skin may cause severe burns. Avoid eye contact. Product is a skin sensitizer. Use safety glasses and gloves. Avoid breathing vapors. Use adequate ventilation. In case of skin contact, remove any contaminated clothing. Wash area of contact with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Contact physician immediately.

Packaging

- 30 oz. dual unit
- 1.5 gal. dual unit

Storage

#500 should be stored in a dry environment between 60-80°F. Unmixed material may crystallize if exposed to temperatures below 60°F.

Technical Service

Complete technical service and specification services are available from the manufacturer and their authorized representatives.

Warranty

All recommendations, statements and technical data contained herein are based on tests we believe to be reliable and correct. CPR Products, Inc. warrants its products to be free of manufacturing defects and that at the time and/or place of shipment our material will meet current published physical properties when applied with ASTM and CPR Products, Inc. standards. CPR Products, Inc. liability is limited to the replacement of the material if found to be defective. As CPR Products, Inc. has no control of the use to which others may put its products, it is recommended the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect, engineer, contractor and the owner for the design, application and proper installation of each product. Nothing contained herein shall be construed to be a recommendation to use or as a license to operate under or to infringe any existing patents.

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