

QuakeBond[™] J333SR

Description

QuakeBond[™] J333SR is a two-component, high-strength, low viscosity resin that cures underwater. QuakeBond[™] J333SR is primarily used for saturating QuakeWrap[®] carbon or glass fabrics such as VU18C or VB26G for repair and strengthening of piles underwater. The resin is mixed in a 2:1 ratio by weight or 100:56 by volume (i.e. 100 parts resin to 56 parts hardener). The resin is applied to the fabric to achieve a composite laminate with a 45%-50% volumetric ratio of resin.

Uses

- Saturating carbon and glass fabrics for retrofit and strengthening of structural elements underwater.
- As a binder for epoxy mortar repairs.

Advantages

- High strength, low-viscosity structural adhesive.
- 100% solvent free.
- Fully compatible and excellent adhesion to QuakeWrap[®] carbon and glass fabrics.
- 100% solids, zero VOCs, no solvents.

QuakeBond[™] J333SR Properties

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Tensile Strength (psi) (ASTM D-412)	9.750
Elongation (%)* (ASTM D-412)	5.0
Flexural Strength (psi)	15,530
HDT (°F) ASTM D648-264	170
Shore D Hardness	85
Viscosity, CPS@ 77°F (25°C)	150-200
Gel Time @ 77°F (150 grams)	30-45 minutes
Thin Film Set Time @ 25°C	<4 hours
Cure Time @ 25°C	12-24 hours

Coverage

Applied as a saturating resin to a fabric with a density of 24 oz/yd^2 (813 gm/m²) achieves a yield of 75 square feet per gallon (0.55 liter per square meter). Yield varies slightly for different fabric densities.

Packaging

- Each of the components is supplied in 55-gallon (208L) drums or 5-gallon (19L) containers, resulting in 450-lb (204 kg) or 40-lb (18 kg) kits.
- Ships DOT regulated.

Application Equipment

<u>Wet Layup</u>: A saturating machine is recommended for impregnating fabrics, but trowels or spatulas may be used for smaller projects or smaller areas of fabric. Use a squeegee for removal of excessive resin.

Surface Preparation

Surfaces must be entirely free of oil, grease, dirt, detergent, laitance, curing compounds, coatings, or other contaminants that may interfere with adhesion.

<u>Steel</u>: Immersion Service: SSPC-SP10 Near White Blast Cleaning with 3.0 mil profile

Non-Immersion Service: SSPC-SP6 - Commercial Blast Cleaning with 2.0 mil profile.

<u>Concrete</u>: Concrete shall be properly cured and no longer out gassing before application. Final prepared surface should be clean and rough. The concrete surface should be prepared to a minimum concrete surface profile (CSP) 2 as defined by the ICRI surface-profile chips.

Mixing

Prior to mixing, all products should be preconditioned to room temperature (65-85° F / 18-29° C). Begin application immediately – no induction time.

Proportion 2 parts component "A" to 1 part component "B" by volume into a clean container. Alternatively, proportion parts "A" and "B" to a 100:45 weight ratio. Mix thoroughly for 3 minutes using a paddle and a mechanical drill at low speed (400-600 rpm) until uniform color is achieved. Mix only the quantities that can be used within the pot life. <u>DO NOT THIN</u>; solvents will prevent proper cure.

Application

Use QuakeBond[™] J333SR with saturating machines to impregnate QuakeWrap[®] carbon or glass fabrics for wet lay-up applications. For smaller projects, the fabrics may be saturated by hand. Spread the fabric on a plastic-covered flat surface or table, pour mixed QuakeBond[™] J333SR resin over the fabric and use a trowel or squeegee to spread the resin into the fabric; it may be necessary to turn the fabric over and repeat this process to ensure full saturation of the fabric. Remove excess resin with a squeegee before installing the fabric on the structural element. Once the saturated fabric is installed, remove all entrapped air bubbles with glove-protected hands. A plastic laminating roller or a porcupine roller can also be used. Do not disturb installed saturated fabric for 24 hours.

All epoxy components shall be preconditioned to a temperature between $65^{\circ}-85^{\circ}F$ ($18^{\circ}-29^{\circ}C$) prior to the time of mixing.

The Infrastructure Innovators

QuakeWrap.com

QuakeWrap, Inc. 6840 S. Tucson Blvd. Tucson, AZ 85756 Toll Free (866) QUAKEWRAP [782-5397]

QuakeWrap, Inc. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. QUAKEWRAP, INC. SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.



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Cleanup

Collect with absorbent material, flush with water. Dispose waste in accordance with local disposal regulation. Uncured materials can be removed with approved solvent.

Shelf Life & Storage

QuakeBond^M J333SR components should be stored in sealed containers at 65°-85°F in a dry area. Shelf life is 2 years, under proper storage conditions.

Limitations

Minimum application temperature of the epoxy is 45° F (7°C). Do not thin this epoxy with solvents.

First Aid

Appropriate Personal Protective Equipment (PPE) should be worn at all times when handling product. Consult SDS for more information.

Certificate of Compliance

Certificate of Analysis (COA) will be supplied upon request and is included with each shipment.

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