

# QuakeBond<sup>™</sup> J333SR

# Description

QuakeBond<sup>™</sup> J333SR is a two-component, high-strength, low viscosity resin that cures underwater. QuakeBond<sup>™</sup> J333SR is primarily used for saturating QuakeWrap<sup>®</sup> 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<sup>®</sup> carbon and glass fabrics.
- 100% solids, zero VOCs, no solvents.

# QuakeBond<sup>™</sup> 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/m<sup>2</sup>) 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<sup>™</sup> J333SR with saturating machines to impregnate QuakeWrap<sup>®</sup> 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<sup>™</sup> 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.

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#### QuakeWrap.com

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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<sup>M</sup> 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  $45^{\circ}$ 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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