



The FRP Retrofit Experts

QuakeWrap, Inc.
2055 E. 17th Street
Tucson, AZ 85719 U.S.A.
Phone: (520) 791-7000
Fax: (520) 791-0600
Toll Free: (866) QuakeWrap [782-5397]
www.QuakeWrap.com

Product Data Sheet QuakeBond™ J300SR Saturating Resin

DESCRIPTION

QuakeBond™ J300SR (Saturating Resin) is a two-component, high-strength, low-viscosity structural epoxy. The low viscosity and long pot life, with fast cure time is designed for high volume saturating of heavy reinforcement fabrics using our impregnator machine. Combined with carbon or glass reinforcement, J300SR Saturating Resin produces fiber composite laminates with exceptional strength, durability and chemical resistance. The convenient color-coded components and the 2:1 volumetric mix ratio is user friendly. QuakeBond™ J300SR is a 100% solids formulation with low toxicity and low odor during cure.

USE

- Saturating carbon and glass fabrics for structural retrofit applications.
- Adhesive for bonding external reinforcement to concrete, masonry & wood.
- A moisture barrier (water-proofing) system in conjunction with QuakeWrap™ carbon or glass fabrics.
- As a binder for epoxy mortar repairs.

ADVANTAGES

- Long pot life.
- High strength, high modulus, low-viscosity structural adhesive.
- Fully compatible and excellent adhesion to QuakeWrap™ carbon and glass fabrics.
- Convenient easy mix ratio, 2:1 by volume.
- 100% solvent free.
- Color coded components (pigmented syrup & amber liquid) to ensure proper mixing control.
- Nearly odor-free.
- Low toxicity during cure.

COVERAGE

Applied as a saturating resin to a fabric with a density of 24 oz/yd² (813 gram /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 165-gallon or 15-gallon kits. Ships DOT non-regulated.

MIXING

Proportion 2 parts component "A" to 1 part component "B" by volume into a clean container. Mix thoroughly for 3 minutes using a paddle at low speed (400-600 rpm) drill until uniform color is achieved. Mix only the quantities that can be used within pot life. **DO NOT THIN**; solvents will prevent proper cure.

SHELF LIFE

2 years in original, unopened and properly stored containers.

STORAGE CONDITIONS

Store at 55°-100°F (13°-38°C)

CERTIFICATE OF COMPLIANCE

- Material Safety Data Sheet (MSDS) will be supplied upon request and is included with each shipment.
- Possesses 0% volatile content per EPA Test Method 24.

APPLICATION

Use QuakeBond™ J300SR in conjunction with our saturating machines to impregnate carbon or glass fabrics (wet lay-up process); please contact us for detailed information on operation of saturating machines. For smaller projects, the fabrics may be saturated by hand; pour mixed J300SR onto the fabric and use a trowel or spatula to spread the resin into the fabric; it may be necessary to turn the fabric over and repeat this process, ensuring that the fabric is thoroughly saturated. Use a squeegee to remove excess resin from the fabric before installing the fabric on the structural element. Once the saturated fabric is installed, remove all entrapped air bubbles with gloved hands; a plastic laminating roller can be used as well. Do not disturb installed saturated fabric for 24 hours.

For dry lay-up process, first apply a thin layer (approximately 15 mil.) of J300SR in order to seal the substrate surface and avoid excessive absorption of resin by the substrate once fabric saturation starts. Allow the surface to become tacky and lay-up fabric dry. Apply several coats of J300SR on the fabric using rollers or squeegees until uniform saturation is achieved. Remove any entrapped air as indicated above. If needed, use J201TC tack coat for dry lay-up of heavier fabrics.

All epoxy components shall be preconditioned to a temperature between 65°F (18°C) and 85°F (29°C) prior to the time of mixing.

LIMITATIONS

Minimum application temperature of the epoxy is 40° F (4°C). **DO NOT THIN** this epoxy with solvents.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately. For respiratory problems, remove to fresh air. Wash clothing before reuse. Consult MSDS for detailed information.

CLEANUP

Collect with absorbent material, flush with water. Dispose of in accordance with local disposal regulations. Uncured materials can be removed with approved solvent. Cured materials can only be removed mechanically.

EPOXY PROPERTIES:

Color – Part "A" is pigmented syrup, Part "B" is amber liquid	
Viscosity Mixed at 77° F (25° C)	1500-1600 cps
Pot Life at 77° F (25° C)	3-4 hrs (thin film set time)
Full cure time	48 hours
Density at 68° F (20° C)	Part A: 9.4 lbs/gal (1.13 kg/L) Part B: 8.3 lbs/gal (1.00 kg/L)
Tensile Strength (ASTM D-638)	7150 psi (49.3 MPa)
Tensile Modulus (ASTM D-638)	289,300 psi (1995 MPa)
Compressive Strength (ASTM D-695)	9490 psi (65.4 MPa)
Compressive Modulus (ASTM D-695)	472,000 psi (3250 MPa)
Flexural Strength (ASTM D-790)	11,140 psi (76.8 MPa)
Flexural Modulus (ASTM D-790)	252,400 psi (1740 MPa)
Shear Strength (ASTM D-3165)	Unable to force shear failure mode; samples fail in tension.
Water absorption (% gain) in 24 hours	< 1%
Expansion Coefficient [-37.4°-40.1° C]	78 *10 ⁻⁶ m/m °C
Expansion Coefficient [120°-222° C]	151.8 *10 ⁻⁶ m/m °C

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION.

KEEP OUT OF REACH OF CHILDREN.
NOT FOR INTERNAL CONSUMPTION.

FOR INDUSTRIAL USE ONLY.
KEEP CONTAINER CLOSED TIGHTLY.

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.

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