



QuakeBond™ 220UR-SC

Description

QuakeBond™ 220UR-SC (Underwater – Slow Cure) is a two-component high-strength structural epoxy-resin designed for a variety of applications including underwater marine uses. This adhesive system trowels easily and has a non-sag, high-tack consistency both in ambient and underwater conditions. QuakeBond™ 220UR-SC is a 100% solids formulation with low toxicity, low odor during cure, and features a unique pot life of 90-minutes for applications where extended working time is required.

Uses

- Adhesive for bonding external reinforcement to concrete, masonry, wood, stone, steel, etc.
- Structural bonding of QuakeWrap®, PipeMedic®, PileMedic® and SpiRe products
- Structural bonding of on vertical and overhead surfaces

Advantages

- High strength, structural paste adhesive
- Non-sag consistency ideal for vertical and overhead applications.
- Paste consistency ideal for underwater applications
- 100% solvent free
- Moisture tolerant
- 24-hour cure time
- Non-toxic when fully cured
- Product DOT non-corrosive for shipping

Epoxy Properties

Color – Mixed	Grey
Viscosity - Mixed	Non-Sag Paste
Mix Ratio – Weight (A:B)	2:1
Pot life at 77°F (25°C)	90 minutes
Full cure time	24 hours
Tensile Strength (ASTM D-638)	4,360 psi (38.6 MPa)
Shear Strength (ASTM D-1002)	2,300 psi (15.9 MPa)
Flexural Strength (ASTM D-790)	9,000 psi (62.1 MPa)
Adhesion to Concrete	Substrate Failure
Adhesion to Steel SSPC-SP10	>1,200 psi (8.3 MPa)
Adhesion to Damp Concrete	>350 psi (2.4 MPa)
	Substrate Failure
Tensile Elongation	5%
Hardness, Shore D	84

Coverage

Surface Application: Applied at a thickness of 40 mil results in 40 square feet per gallon (1 liter per square meter). Rough and uneven surfaces result in lower yields. Contact a QuakeWrap® specialist for more information.

Laminate Application: Applied at a thickness of 20 mil results in 80 square feet per gallon (0.5 liter per square meter).

Packaging

- 3-gallon (11.4 L) kits
- 15-gallon (56.8 L) kits

Application Equipment

Use a putty knife or trowel for smoothing of resin.

3-gallon & 15-gallon kits: Metering or dispensing equipment with ratio capabilities of 2:1 with liquid to paste viscosity range.

Surface Preparation

For Bond-Critical Applications:

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

Steel: *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.

Concrete: 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.

The Infrastructure Innovators

QuakeWrap.com

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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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Mixing

Prior to mixing, all products should be preconditioned to room temperature (65-85° F / 18-29° C). Portion out 2 components by weight. Pour Part B into container with Part A, Mix for at least 2 minutes. Do not mix more material than can be applied within the pot life. Begin application immediately.

3-gallon kit: Pour Part B Hardener in Part A Resin. Hand mix for 3 minutes, scraping sides and bottom of container to ensure complete mixing.

15-gallon kit: Pre portion batch with scale. Mix for 3 minutes using a Jiffy mixer head and a mechanical drill. To ensure complete mixing, scrape sides and bottom of container and continue mixing for an additional 1 to 2 minutes. DO NOT HAND MIX.

Application

Air and surface temperature should be between 45-95° F (7-35° C). Do not begin application if air, substrate, or material temperatures is below 45° F (7° C) or expected to fall below 44° F (7° C) within 24 hours of application. Do not begin application if dew point is within 5° F (3° C) of the temperature. Variations in temperature can affect pot life and sag properties of this material.

Apply product to substrate with a putty knife or notched trowel and smooth to appropriate thickness.

Cleanup

Collect with absorbent material, flush with water. Clean up using Acetone or other Ketone solvent.

Shelf Life & Storage

Shelf life is 12 months from the marked date of manufacture when unopened and stored in a dry, covered area at temperatures between 65-85° F (18-29° C). Keep away from heat, flame, and ignition sources.

Limitations

QuakeBond™ 220UR will not cure in temperatures below 40°F. Seek approval from a QuakeWrap representative for applications of product below 45°F. All epoxies will show chalking/yellowing on exterior exposures. Application of epoxy coatings in cool temperatures and high humidity can result in the formation of amine blush. Blush may appear as a milky, white, tacky residue on the surface of the cured coating and must be removed before the application of another coat. Intercoat adhesion problems may occur if blush is not removed.

First Aid

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

Certificate of Analysis

Certificate of Analysis (CofA) will be provided upon request.

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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.