



QuakeBond™ 220UR

Description

QuakeBond™ 220UR is a two-component high-strength structural epoxy adhesive designed for a variety of applications including underwater marine uses. This adhesive system trowels easily and has an immediate high tack consistency both in ambient and underwater construction. QuakeBond™ 220UR is a 100% solids formulation with low toxicity, low odor during cure.

Uses

- Adhesive for bonding external reinforcement to concrete, masonry, wood, stone, steel, etc.
- Structural bonding of QuakeWrap®, PipeMedic®, PileMedic® SpiRe products
- Structural bonding of saturated fabrics on vertical and overhead surfaces
- Interlayer surface coating for multiple-ply installations

Advantages

- High strength structural paste adhesive
- Non-sag consistency ideal for vertical and overhead applications
- Fully compatible with QuakeWrap® laminate and saturated fabric systems
- Paste consistency ideal for underwater applications
- Convenient 2:1 mix ratio, by weight or volume
- 100% solvent free
- Moisture tolerant
- 12-hour full cure
- 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)	30 minutes
Full cure time	12 hours
Tensile Strength (ASTM D-638)	5,598 psi (38.6 MPa)
Compressive Strength (ASTM D-695)	13,200 psi (91.0 MPa)
Shear Strength (ASTM D-1002)	2,400 psi (16.5 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	3%
Hardness, Shore D	84
Water Absorption (% gain) 24-hr	0.1%

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 20mil 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
- 30.4 oz. (900 mL) cartridges

Application Equipment

Use a putty knife or notched 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.

Cartridges: 900ml (600x300 capacity) dual cartridge dispensing gun capable of 2:1 dispensing ratio. Static mixing nozzle included with cartridge.

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 outgassing 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.

Cartridges: Insert cartridge into dispensing gun and cut tip off static mixing nozzle. Prime dispensing gun, allowing resin to fill mixing nozzle. Dispose of first pumps of product to ensure proper mixing.

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 45° F (7° C) within 12 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 trowel and smooth to appropriate thickness.

Cleanup

Collect with absorbent material, flush with water. Clean up using Acetone or other Ketone solvent. Dispose waste in accordance with local disposal regulation.

Shelf Life & Storage

Shelf life is 18 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 (C of A) will be provided upon request.

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