



QuakeWrap® UWPile Jacket Epoxy Grout (PJE)

Product Description

QuakeWrap UW Pile Jacket Epoxy Grout (PJE) is a three component underwater curing, long pot life structural epoxy grout. The QuakeWrap UW Pile Jacket Epoxy Grout is a low viscosity resin and hardener system mixed with aggregate to make a pumpable epoxy grout for filling the PileMedic jacket Systems or void filling in timber and concrete substrates.

Uses

- Filling of annulus in the PileMedic jacket systems for structural retrofit applications of marine piles.
- Excellent adhesion to PileMedic, concrete, steel, masonry and wood
- A moisture barrier (water-resistant) system when used in conjunction with QuakeWrap® PileMedic, Spire and StifPipe Systems.
- Non-compressive void filler in timber piles and component.

Advantages

- Long pot life
- High-strength, high-modulus, low-viscosity structural adhesive
- Fully compatible and excellent adhesion to QuakeWrap®PileMedic jacket System.
- Convenient mix ratio, by weight
- 100% solvent free
- Color coded components (pigmented syrup and amber liquid) to ensure proper mixing control
- Nearly odor free and low toxicity during cure
- Under Water Curing

Epoxy Grout Properties

Color	Part A: Pigmented Syrup Part B: Amber Liquid
Viscosity mixed at 77° F (25° C)	1500-1600 cps
Tensile Strength (ASTM C 307) Compressive Strength (ASTM C-579 B)	12.7 MPa 65.4 MPa
Flexural Strength (ASTM D-790) 24-hr water absorption (% gain)<	21.4 MPa < 1%
Bond Strength to Steel (ASTM C882) Bond Strength to Concrete (ASTM C882)	10.4 MPa 15.3 MPa
Pot life at 77° F (25° C) Full cure time	1-1/2 hours 24 hours
Unit Yield (when mixed with 3 x bags aggregate)	44.5 litre
Water Absorption, ASTM	0.0%

Application Equipment

QuakeWrap UW Pile Jacket Epoxy Grout (PJE) can be pumped or hand poured into place.

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 for a minimum of 28 days before application of coating. The concrete must be prepared to provide anchor pattern for adhesion. Final prepared surface should be clean and rough. Consult SSPC-SP13 - Surface Preparation of Concrete.

For Contact-Critical Applications: Surfaces must be entirely free of oil, grease, dirt, detergent, laitance, curing compounds, coatings, or other contaminants that may interfere with adhesion. Surface voids should be patched, and materials and coatings with low compression strengths and elastic moduli should be removed.



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Mixing

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

Combine Component “B” to pail of component “A”. Mix thoroughly for 3 minutes using a paddle and a mechanical drill at low speed (400-600 rpm) until uniform color is achieved. While Mixing slowly add aggregate until aggregate is completely mixed and wet. Mix only the quantities that can be used within the pot life.

DO NOT THIN; solvents will prevent proper cure.

Placement

QuakeWrap UW Pile Jacket Epoxy Grout (PJE) can be pumped or poured by hand into place. For PileMedic applications insert tremie pipes into the annulus and slowly remove pipes as annulus is filling to prevent falling of epoxy grout.

Cleanup

Collect with absorbent material, flush with water. Clean up using Acetone or other Ketone solvent. Dispose waste in accordance with local disposal regulation. Cured materials can only be removed mechanically.

Packaging

QuakeWrap UW Pile Jacket Epoxy Grout (PJE) is a three component system consisting of:

- Part A =13.03kg (Low Viscosity resin)
- Part B = 3.6kg (Hardener), and
- 3 x 20kg bags of sand aggregate.

Ships DOT non-regulated.

Shelf life and Storage

Shelf life is 1 year from the marked date of manufacture when unopened and stored in a dry, covered area at temperatures between 13-38° C. Keep away from heat, flame, and ignition sources.



Limitations

Attention also needs to be paid to the substrate temperature which should be at least 3°C during the curing phase. Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

If in doubt consult the QuakeWrap technical department for advice.

First Aid

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

Certificate of Compliance

Safety Data Sheet (SDS) will be supplied upon request and is included with each shipment.



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Warranties and Disclaimers

Hychem warrants that this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper use and application of the product by the applicator. Hychem has no role in the application of the finished polymer other than to manufacture and supply its components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of spray equipment and application of sol-gel materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Hychem and executed under seal by a company officer.

Field Support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM are responsible for carrying out procedures appropriate to a specific application.

Customer Responsibility

The technical information and application advice given in this publication is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the product suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.