PileMedic® UW Epoxy Grout

Description

PileMedic® UW Epoxy Grout is a three-component, 100% solids, moisture-insensitive, high strength, high modulus, long working time, multi-purpose water-displacing epoxy grout designed to cure underwater. It provides a durable encapsulation repair for concrete, timber, and steel below water. PileMedic® UW Epoxy Grout may be poured into forms or pumped.

Uses

Use for encapsulation repair and restoration for concrete, timber, and steel above and below water.

Features/Benefits

- Structurally restores integrity of concrete, steel, and timber
- Excellent corrosion protection
- High wet and dry strength
- Made in America
- Moisture Tolerant
- Solvent Free
- Convenient 2:1 mix ratio by volume for liquid; adjustable aggregate loading
- Pumpable

Packaging/Yield

- Component A – Two (2) Gallon jugs Resin
- Component B – One (1) Gallon Jug Hardener
- Component C – Two (2) 55 lb. bags aggregate

3 gal /11.4 L of mixed epoxy mixing with 100-150 lb of aggregate yields approximately 1-1.5 cubic feet (28-42 liters).

Surface Preparation

Concrete shall have reached its design strength and be dimensionally stable prior to placement of PileMedic UW Epoxy Grout. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for the PileMedic UW Epoxy Grout. All metal surfaces to come in contact with grout should be sandblasted to white metal finish and wiped clean with solvent. Items not intended to bond to grout, such as leveling screws, wedges and bolts must be protected with wax, caulk, duct tape or similar.

Mixing

Mix only the amount of material that can be used within its pot life. Proportion each component carefully into a clean pail. Mix thoroughly for 3 minutes with a Jiffy mixer on low speed (400-600rpm). Scrape the sides and bottom of the container. To prepare an epoxy grout, slowly add aggregate. Mix only until all aggregate is wetted out. Placing: Pour or pump.

Technical Data

Shelf Life		2 years in original unopened container
Storage Conditions		40°F-95°F (5°C-35°C)
Material Conditions Prior to Use		65°F-85°F (18°C-29°C)
Liquid Mix Ratio		2:1 by volume
Viscosity		100-500 cps
Gel Time (200 g mass)		40 minutes
Tack Free Time @ 73°F (23°C)		12 to 24 hours
Tensile Strength (ASTM C 307) 7-Day Cure	**Wet:**	1,500 psi (10.3 MPa)
	Dry:	2,500 psi (17.2 MPa)
Bond Strength (ASTM C 882) 7-Day Cure	**Wet:**	1,800 psi (12.4 MPa)
	Dry:	3,000 psi (20.7 MPa)
Compressive Strength (ASTM C 882), 7-Day Cure	**Wet:**	6,000 psi (41.4 MPa)
	Dry:	11,000 psi (75.9 MPa)
Tensile Bond Strength (ASTM C 1583), 7-Day Cure		>250 psi (1.7 MPa)
Thermal Compatibility (ASTM C 884)		Pass
Linear Shrinkage (ASTM C 531)		0.01%
Water Absorption (ASTM D 570)		0.3% (24 hr)

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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Application

Pilemedic® UW Epoxy Grout can be dry packed, poured, or pumped into place. Place the grout within 20 minutes of mixing to gain the full benefit of the expansion process. Continuous grout flow is required, and the grout should be poured or pumped through a flexible tube, minimum diameter of ½" to the lowest point in the form. At the start of operation, the grout flow should be restricted in order to avoid any water entrapment. The bottom of the tube may be raised above the level of the grout. A 6" minimum depth is suggested below the grout surface to optimize performance. (tremie method).

Pile Jackets may be filled with Pilemedic® UW Epoxy Grout in thicknesses up to 4" in one pour when placed above water. When placed under water, the heat sink effect in the environment permits thickness up to 7" be placed. For thicker sections, up to 10" above water and 20" under water, it is necessary to extend the Pilemedic® UW Epoxy Grout using a clean, rounded and well graded aggregate in the size range 3/8" to ½". The quantity if aggregate should not exceed 1-part aggregate to 1 Pilemedic® UW Epoxy Grout by weight. For such mixes, a mortar mixer should be used. Unrestrained surface areas should be kept to a minimum. Excessively large volumes would require a thermal analysis to determine any limitations on pour size.

Curing will not be required in intermittent or totally submerged conditions. However, when cast above water, cover immediately with clean wet rags and keep moist until final set. After final set, remove rags and apply a ASTM C-309-91 curing compound.

Shelf Life & Storage

Pilemedic® UW Epoxy Grout should be stored in a cool, dry interior area. At no time should stored material be exposed to high moisture, rain, or snow conditions. When stored in the original tightly closed container, the shelf life is two years from the date of manufacture.

Limitations

Minimum substrate temperature is 40°F (5°C). Do not thin. Solvents will prevent proper cure.

Cleanup

Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations. Uncured material can be removed with acetone or other approved solvent. Cured material can only be removed mechanically.

First Aid

Appropriate personal protective equipment (PPE) should be worn at all times when handling this product. Consult SDS for more information.

Certificate of Compliance

Certificate of Compliance will be supplied upon request and is included
with each shipment.

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