



PILE JACKET GROUT HP

Underwater Pile Jacket Epoxy Grout

PRODUCT DESCRIPTION

Five Star® Pile Jacket Grout HP is a multi-purpose, three-component, 100% solids, moisture insensitive epoxy grout specifically designed to cure underwater. Five Star® Pile Jacket Grout HP has excellent flowability, may be pumped or poured into place and exhibits outstanding physical properties when placed in wet or dry environments.

ADVANTAGES

- Excellent wet and dry physical properties
- Adjustable aggregate loading
- Moisture insensitive before, during and after cure
- Excellent adhesion to masonry, concrete, wood and steel
- Pumpable

USES

- Encapsulation material for concrete, steel and wood
- Corrosion protection for concrete, steel and wood
- Pile repair and restoration

PACKAGING AND YIELD

Five Star® Pile Jacket Grout HP is a three-component system consisting of partially filled containers of resin and hardener, and 4 polyethylene lined bags of aggregate. Product yield is approximately 1.75 cubic feet (49.6 L) of hardened material.

SHELF LIFE

Two years in original unopened packaging when stored in dry conditions; high relative humidity will reduce shelf life.

TYPICAL PROPERTIES AT 70°F (21°C)*		
Compressive Strength, (ASTM C 579 B)**	DRY	WET
1 Day	2,000 psi (13.8 MPa)	1,200 psi (8.27 MPa)
7 Days	10,000 psi (68.9 MPa)	5,000 psi (34.5 MPa)
28 Days	11,500 psi (79.3 MPa)	8,800 psi (60.7 MPa)
Tensile Strength, (ASTM C 307)		
7 Days	2,300 psi (15.9 MPa)	1,500 psi (10.3 MPa)
Tensile Bond Strength to green concrete (ASTM C 1583)		
28 Days	>250 psi (1.7 MPa)	>250 psi (1.7 MPa)
Bond to Concrete, (ASTM C 882)		
7 Days	3,500 psi (24.1 MPa)	1,500 psi (10.3 MPa)
Linear Shrinkage, (ASTM C 531)	0.01%	0.01%
Water Absorption, (ASTM C 413)	0.0%	0.0%
Working Time at 70°F (21°C)	90 minutes	90 minutes
Increase in Flexural Strength (ASTM C 78) 1/4" Layer, 5,000 psi concrete	Concrete Control	Concrete with Pile Jacket Grout HP
3" x 3" x 12" Bars	800 psi (5.5 MPa)	2,500 psi (17.2 MPa)

*The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result. Test methods are modified where applicable.

**Materials tested per ASTM C 579 B. Rate of loading 0.25 inches per minute.

PLACEMENT GUIDELINES

- 1. SURFACE PREPARATION:** All surfaces to be in contact with Five Star® Pile Jacket Grout HP shall be free of marine growth, oil, grease, laitance, and other contaminants. Concrete must be clean, sound, and roughened to ensure a good bond.
- 2. MIXING:** For optimum performance, all components should be conditioned to between 65°F and 85°F (18°C and 29°C) prior to use. Pour all Component B (hardener) into pail containing Component A (resin). Mix thoroughly by hand with a paddle or with a slow speed drill and paddle mixer to avoid air entrapment. Pour mixed liquids into mortar mixer (stationary barrel with moving blades). While mixing, slowly add Component C (aggregate) and mix only until aggregate is completely wet. Add Component C (aggregate) immediately after mixing Component A (resin) and Component B (hardener). Do not mix more material than can be placed in 45 minutes.
- 3. METHODS OF PLACEMENT:** Five Star® Pile Jacket Grout HP may be pumped or poured into place. For vertical flow applications simply pour or pump from the top of the opening, or pump into ports. For horizontal applications, pour or pump from one side to the other.
- 4. POST PLACEMENT PROCEDURES:** In-service operation may begin immediately after minimum required grout strength and modulus have been achieved.
- 5. CLEAN UP:** Use a solvent or water and strong detergent solution on tools and equipment before material hardens. Use power washer on pump and mixing equipment. Sand may be used as an abrasive to aid in cleaning.

NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY. For more detailed placement procedures, refer to Five Star® Design-A-Spec™ installation guidelines or call Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

CONSIDERATIONS

- Minimum substrate temperature is 40°F (4°C) and rising.
- Do not add solvents to increase flowability.
- Do not seal slabs on grade with product. Five Star® Pile Jacket Grout HP is a vapor barrier.

CAUTION

Component A - Irritant • Component B - Corrosive

Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended. Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate. Avoid breathing vapor. Avoid skin contact. **Prior to use, refer to Safety Data Sheet.**

For worldwide availability, additional product information and technical support, contact your local Five Star® distributor, local sales representative, or call Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

SKU / PRODUCT CODE	DESCRIPTION	# UNITS/PALLET	UNIT SIZE
32000	Five Star® Pile Jacket Grout HP	36 (4 pallets)	Resin (A): 24 lbs. (10.9 kg) Hardener (B): 14.2 lbs. (6.4 kg) Aggregate (C) 4 bags (44 lb. ea) (20 kg)

WARRANTY: "FIVE STAR PRODUCTS, INC. (FSP) PRODUCTS ARE MANUFACTURED TO BE FREE OF MANUFACTURING DEFECTS AND TO MEET FSP'S CURRENT PUBLISHED PHYSICAL PROPERTIES WHEN APPLIED IN ACCORDANCE WITH FSP'S DIRECTIONS AND TESTED IN ACCORDANCE WITH ASTM AND FSP STANDARDS. HOWEVER, SHOULD THERE BE DEFECTS OF MANUFACTURING OF ANY KIND, THE SOLE RIGHT OF THE USER WILL BE TO RETURN ALL MATERIALS ALLEGED TO BE DEFECTIVE, FREIGHT PREPAID TO FSP, FOR REPLACEMENT. THERE ARE NO OTHER WARRANTIES BY FSP OF ANY NATURE WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. FSP SHALL NOT BE LIABLE FOR DAMAGES OF ANY SORT, INCLUDING PUNITIVE, ACTUAL, REMOTE, OR CONSEQUENTIAL DAMAGES, RESULTING FROM ANY CLAIMS OF BREACH OF CONTRACT, BREACH OF ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR FROM ANY OTHER CAUSE WHATSOEVER. FSP SHALL ALSO NOT BE RESPONSIBLE FOR USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT HELD BY OTHERS."

Specifications Subject to Change.

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