SeaShield Fiber-Form
Installation Guide

1.0 Scope

1.1 This specification may be used for the installation of the SeaShield Fiber-Forms. This is intended as a guide only and actual field installation may vary depending on site conditions, length of pour, diameter size, etc.

1.2 The engineer shall select appropriate sections of the specifications to ensure that the specification is comprehensive for specified work.

2.0 Materials

2.1 Material shall be Premier Coatings SeaShield Fiber-Form as manufactured by Premier Coatings Ltd., 9710 Telge Road, Houston, TX 77095 (Tel) 281-821-3355 (Fax) 281-821-0304 or 90 Ironside Crescent Unit 12, Toronto, Ontario, Canada M1X1M3 (Tel) 416-291-3435 (Fax) 416-291-0898. E-mail: info@premiercoatings.com.

2.2 Material shall meet the physical properties of the attached product data sheet.

2.3 Fiberglass Jacket (SeaShield Fiber-Form)

2.3.1 The fiberglass form thickness shall be a minimum of 1/8" (3 mm) depending on forces and stresses it may encounter during handling and injection of grout.

2.3.2 The form shall be translucent to provide visual inspection during the pumping of the grout.

2.3.3 The fiberglass form shall have the following minimum properties:

Min. Ultimate Tensile Strength	ASTM D638	16,000 psi (110 MPa)
Min. Ultimate Flexural Strength	ASTM D790	25,000 psi (172 MPa)
Flexural Modulus of Elasticity	ASTM D790	800,000 psi (5,516 MPa)
Barcol Hardness	ASTM D2583	45 min.
IZOD Imapct (notched)	ASTM D256	20 ft-lbf/inch (0.4 J/m)
Max. Water Absorption	ASTM D570	<1%
Relative Permitivity @ 60 Hz	ASTM D150	4.40
Ultra-Violet (UV) Accelerated Weathering Test 500 hours Twin Carbon ARC	ASTM G153	Pass
Standard Color	—	Translucent
Wall Thickness	—	1/8 in.* (3 mm)

2.3.4 The fiberglass form may be manufactured as either a single unit or as two pieces that shall be joined in the field. Typical cylindrical pile encapsulations use a single unit and square piles typically use two units. The forms can be placed one above the other with the overlapping jacket having a molded open cavity to receive a bottom seal gasket. The forms shall have a tongue and groove closure.

3.0 Surface Preparation

3.1 Prior to application, thoroughly clean and remove marine growth, oil, grease, rust and any other deleterious material which might prevent proper bonding between the pile and grout. Surfaces shall be cleaned by waterblasting, sandblasting or other acceptable methods.

4.0 Installation

4.1 Preparation of Fiberglass Form

4.1.1 Stand-offs shall be placed around the circumference of the rebar cage to provide a space between the rebar and Fiber-Form. Typical material used is 3" (75 mm) PVC pipe cut into 6" (150 mm) lengths and wired to the rebar cage or as required by project specifications.

4.1.2 If a mud line repair is required, excavate the mud approx. 1 to 2 feet (0.3 m to 0.6 m) at the base of the pile and install the Fiber-Form. If a tidal zone repair is required, install a work platform at the proper height using friction clamps secured to the pile. A plug at the bottom with SeaShield 550 Epoxy Grout or underwater grout shall be used to prevent any leaching out of grout material during pumping. Pumping shall not commence until bottom seal is fully cured.

4.1.3 The inside surface of the Fiber-Form shall be clean and free of grease and dirt. The Fiber-Form shall be opened and position around the pile.

4.1.4 The form shall be secured by temporary nylon straps, steel straps or other means to assure that it will not move or distort during placement of grout. Spacing is recommended at minimum 18" (450 mm) or as required.

4.1.5 All vertical seams shall be fastened with 1-1/2" (37.5 mm) hex head self taping screws or 3/16" (4.6 mm) diameter rivets that shall not exceed 6" (150 mm) spacing.

4.1.6 Port holes are typically drilled and installed on-site by the contractor so the correct location will be obtained. A threaded port hole secured by bolts or riveted internal flap shall be installed at required locations.

5.0 Grout Placement

5.1 The Fiber-Form shall be filled with SeaShield 510 UW Grout or other equal underwater cementitious grouts.

5.2 The form shall be pumped at a constant slow rate of placement within allowable pressure ratings. The hose shall be moved to a higher port as needed.

6.0 Completion

6.1 After the pumping process is completed and the grout has cured, all temporary supports shall be removed.

6.2 The top of each fiberglass form shall be finished with SeaShield 525 Underwater Epoxy or SeaShield 550 Epoxy Grout.

Premier™

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