TECHNICAL DATA SHEET

SeaShield™ Fiber-Form Jacket

High Strength Fiberglass Interlocking Jacket

Description

SeaShield Fiber-Form Jacket is a fiber-reinforced plastic (FRP) composite that is used as a stay-in-place form for the SeaShield Series 400, 500, and FX-70 Systems. When used with our specialty underwater grouts, these systems allow repairs to be made to concrete, wood, and steel structures that are submerged or in the tidal zone without constructing costly cofferdams. The custom-made FRP jackets are available in a variety of shapes, lengths and, sizes.

Uses

- Used in conjunction with SeaShield Series 400, 500, and FX-70 Systems
- Repairs and protection of marine structures
- Pile repairs
- Seawall and sheet pile repairs
- Underwater grouting applications
- Pile splicing/extensions

Features

- High-impact, light and non-corrosive
- Repair damage in place, with no need to dewater or take the structure out of service
- Suitable for saltwater marine applications
- Accommodates piles of various shapes and sizes – round, square, H-piles, or custom shapes
- Excellent abrasion resistance
- Long-lasting maintenance-free service life

Surface Prep

Surface must be sound and free of loose rust, marine growth, and any old existing coatings. Remove all oils, greases, dirt, and wax solutions from the surface.

A. **Steel Surfaces**: Prepare surface by high water-blasting or other mechanical means to achieve SSPC-SP-12/NACE 5 WJ-4. Repair or replace any structural steel elements with excessive section loss as determined by a qualified professional engineer.

B. **Concrete**: Prepare surface by high water-blasting or other mechanical means to achieve ICRI Guideline 310.2R CSP 6-9. Mechanically remove unsound concrete in the damaged area to provide a minimum concrete surface profile

CSP 6, per ICRI Guideline 310.2R. Repair or replace any reinforcing steel as determined by a qualified professional engineer.

C. **Wood**: Prepare surfaces by high-pressure water blasting and shall be done at a minimum of 3,500 psi (24 MPa) to remove all contaminants.

D. **Fiberglass Jackets**: Fiberglass surfaces must be sound, clean and free of all contaminants that could impair product adhesion or performance.

Jacket Preparation: Install stand-offs/spacers to the inside of the jacket using SeaShield 523 Epoxy Adhesive to provide proper annulus space between the pile and the inside of the Fiber-Form. Place a bead of adhesive with a SeaShield FX-70TNG Cartridge using a dual-cartridge gun with a mixing tip. Insert the mixing tip into the tongue and groove and begin pulling the trigger to dispense a uniform bead of epoxy adhesive into the tongue and groove. Pull the jacket open and place it around the pile, engaging the tongue and joint(s), then secure the jacket with ratchet straps. Position the jacket over the repair area so that the jacket's length allows 18" (457 mm) to 24" (610 mm) of undamaged pile above and below the damaged area. Secure the tongue and groove joint with the SeaShield 316 Stainless Steel Screws, self-drilling, self-tapping screws along the center of the tongue and groove joint every 6" (150 mm) on the center. **Note:** For square jackets, you will need additional bracing on all four sides of the jacket to prevent distortion of the Fiber-Form jacket due to pressures while pumping.

Application

Prepare the bottom seal with SeaShield 550 Epoxy Grout or FX-70 6MP. Allow grout to fully cure and then commence with pumping 6" a bottom seal. For more comprehensive application instructions, please refer to the SeaShield 400, 500, or FX-70 Engineering Specifications or Installation Guide for the system that is being installed.

Storage

Store fiberglass jackets in a clean, dry area. If the jackets are stored outside, they should be covered/tarped from the elements.

Cleaning

If required, clean the inside of the fiberglass jackets with soap and water or wipe down with a MEK or acetone.

HSE

Wear protective clothing and ensure adequate ventilation if cutting or sanding of the fiberglass jackets. Wear gloves while handling jackets. See the safety data sheet (SDS) for further information.

Options

Available Shapes & Sizes

Thickness: 1/8", 3/16", and 1/4" (3.2 mm, 4.7mm and 6.2 mm)

Shapes: Round, square, H-piles, sheet pile and custom jackets

Colors: Translucent, white & gray. Other colors available upon request.

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Tech Data

Properties	Imperial	*Metric*
Minimum Ultimate Tensile Strength (ASTM D638)	16,000 psi	*110 MPa*
Minimum 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.	*45 min.*
IZOD Imapct (ASTM D256)		
Notched	20 ft-lbf/inch	*0.4 J/m*
Maximum Water Absorption (ASTM D570)	<1%	*<1%*
Relative Permittivity @ 60 Hz (ASTM D150)	4.40	*4.40*
Ultra-Violet (UV) Accelerated Weathering Test		
500 Hours Twin Carbon ARC	Pass	*Pass*
Standard Color*	Translucent	*Translucent*

***Note:** Other colors available upon request

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