



SPIRe® Panel

Product Description

SPIRe® Panel is a high-strength high-modulus Fiber Reinforced Polymer (FRP) panel constructed with fiberglass fabrics, a structural core and Vinyl Ester resins. The panel is connected at the end overlapping region with the overlapping portions connected and bonded together using QuakeBond™ 220 Adhesives. The annular space between the SPIRe® Panel and the host structure can be filled with an array of QuakeWrap® fill materials, including non-shrink grouts, epoxy grouts, and resins.

Uses

- Corrosion Protection of Seawall, Sheet Piles, and Bulkheads
- Part of system for structural rehabilitation of seawall
- Seawall Barrier
- Stay in Place form
- Protect areas of high corrosion
- Applicable to all materials: concrete, steel and timber

Advantages

- Non-Corrosive
- Low void content as a result because of infusion manufacturing
- Manufactured with texture inside of laminate suitable for secondary bonding
- Rigid FRP Panel
- High impact resistance
- Compatible with PileMedic® Grouts
- Compatible with PileMedic® Spacer and Port systems
- Compatible with QuakeWrap® Resins and wet lay-up systems

Application

For installation instruction, refer to SPIRe® specification.

Panels can be cut to appropriate length using tile saw products to reduce any dust on site. Angle grinders with metal cut-off wheel can also be used to cut the product. Safety precautions must be taken while cutting the product.

Cleanup

Dispose of waste in accordance with local disposal regulations. Cured materials can only be removed mechanically. See QuakeBond™ 300SR and 220UR SDSs for more information on resin cleanup.

Packaging

SPIRe® panels come in flat sheet 4' wide and up to 19' long manufactured with an overlap portion.

Shelf life and Storage

SPIRe® panels have unlimited shelf life when stored properly. Store in dry place at 30°-120° F (0°-50° C).

Limitations

Design calculations must be made and certified by a licensed professional engineer.

Shell Data

Data:	
Color	Translucent, Grey
Resin System	Vinyl Ester
Properties:	
Thickness	0.375 in – 0.5 in
Mass Density	71.2lb/ft ³ (1.14g/cm ³)
Flexural Strength (ASTM D790)	23,900 psi
Flexural Modulus (ASTM D790)	1.81 x 10 ⁶ psi
Barcol Hardness (ASTM D2583)	50 min
Water Absorption (ASTM D570)	0.8% max



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Caution

SPIRe® Panels are non-reactive. They do not require a Safety Data Sheet (SDS). However, caution must be used when handling since a fine dust may be present on the surface. Gloves and safety glasses are recommended to protect against skin and eye irritation. Care must also be taken when cutting the laminates to protect against airborne dust generated by the cutting procedure. Use of an appropriate, properly fitted NIOSH approved respirator is recommended.

First Aid

Appropriate Personal Protective Equipment (PPE) should be worn at all times when handling product.

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.