



Material Performance Specification

Five Star® PileForm™ F

FRP Protection & Rehabilitation Jackets

- A. The pile jacket shall consist of fiberglass mats woven in a polyester resin matrix. Wall thickness of jacket shall be 1/8 inch (3 mm) nominal (+/- manufacturing tolerances) unless otherwise specified.
- B. The manufacturer shall have a minimum of 10 year's experience in the manufacture of fiberglass pile jackets. The manufacturer shall offer technical services and provide a representative at the jobsite upon request with sufficient notice (5 working days).
- C. The fiberglass jacket shall meet all the following typical performance criteria: ¹

1.	Flexural Strength , ASTM D790	34,000 psi (230 MPa)
2.	Flexural Modulus , ASTM D790	1.0 x 10 ⁶ psi (6.9 GPa or 6,900 MPa)
3.	Ultimate Tensile Strength , ASTM D638	20,000 psi (138 MPa)
4.	Tensile Modulus , ASTM D638	1.5 x 10 ⁶ psi (10,300 MPa)
5.	Compressive Strength , ASTM D695	18,500 psi (128 MPa)
6.	Elongation , ASTM D638	1.6%
7.	Izod Impact (Notched) , ASTM D256	20 ft lbs/inch (1.07 kJ/m)
8.	Barcol Hardness , ASTM D2583	40-50
9.	Water Absorption , ASTM D570	< 0.3%
10.	Standard Color	Translucent
11.	Wall Thicknesses (nominal and minimum)	1/8" to 1/2" (3 mm to 13 mm)
12.	UV Resistance, Carbon Arc Weathering , ASTM G153, 500 hours	Pass (No Detrimental Effect)

An acceptable product which meets these criteria is: **Five Star® PileForm F™ Pile Jacket** as manufactured by Five Star Products, Inc., Shelton, CT [203-336-7900].

- D. The pile jacket shall be installed in accordance with the pile jacket manufacturer's installation instructions. Any deviations to the pile manufacturer's handling and/or installation instructions that are required shall be approved in advance by the project engineer and/or the project manager.

¹ The data shown above reflect typical results based on 1/8 inch minimum thickness in laboratory testing under controlled conditions. Reasonable variations from the data shown above may result in the field. Test methods are modified where applicable.

