

## FIVE STAR® HP EPOXY GROUT

### PERFORMANCE SPECIFICATION

- A. Nonshrink epoxy grout shall be a 100% solids, premeasured, prepackaged system containing thermosetting epoxy resins, expansive additives and inert fillers. The manufacturer shall be ISO 9001 certified and have at least five years experience in the manufacture of precision epoxy-based machinery grouts.
- B. The grout material shall meet all the following typical performance criteria when cured at 73°F (23°C):

1. Compressive Strength, ASTM C 579 B\*

Aggregate Content	5 Bags/Unit		4 Bags/Unit	
	Comp. Strength psi (MPa)	Comp. Modulus psi (MPa)	Comp. Strength psi (MPa)	Comp. Modulus psi (MPa)
16 Hours	11000 (75.9)	1.6 x 10 <sup>6</sup> (11.0 x 10 <sup>3</sup> )	10000 (69.0)	1.5 x 10 <sup>6</sup> (10.4 x 10 <sup>3</sup> )
1 Day	15000 (103.5)	2.0 x 10 <sup>6</sup> (13.8 x 10 <sup>3</sup> )	14000 (96.6)	1.9 x 10 <sup>6</sup> (13.1 x 10 <sup>3</sup> )
7 Days	16500 (113.9)	2.2 x 10 <sup>6</sup> (15.2 x 10 <sup>3</sup> )	16000 (110.4)	2.1 x 10 <sup>6</sup> (14.5 x 10 <sup>3</sup> )
Post cured at 140°F(60°C)	17500 (120.8)		17000 (117.3)	

2. Height Change, ASTM C 827,

90°F (32°C)	Positive Expansion	Positive Expansion
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3. Effective Bearing Area	95%	95%
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4. Tensile Strength, ASTM C 307	2400 psi (16.6 MPa)	2000 psi (13.8 MPa)
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5. Creep, ASTM C 1181, 1 year 400 psi (2.8 MPa), 140°F (60°C)	1.2 x 10 <sup>-3</sup> in/in (mm/mm)	2.0 x 10 <sup>-3</sup> in/in (mm/mm)
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6. Flexural Strength, ASTM C 580	4800 psi (33.1 MPa)	4400 psi (30.4 MPa)
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7. Bond to Concrete, ASTM C 882	Concrete Failure	Concrete Failure
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8. Coefficient of Expansion, ASTM C 531	17 x 10 <sup>-6</sup> in/in/°F (30 x 10 <sup>-6</sup> mm/mm/°C)	18 x 10 <sup>-6</sup> in/in/°F (32 x 10 <sup>-6</sup> mm/mm/°C)
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*\*Rate of loading 0.25 inches per minute.*

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

- C. Aggregate content of epoxy grout shall not be reduced beyond manufacturer's recommendations. Manufacturer shall submit data for epoxy grout at reduced aggregate content for engineer approval.

- D. Nonshrink epoxy grout shall be Five Star HP Epoxy Grout manufactured by Five Star Products, Inc., Fairfield, Connecticut.