

FIVE STAR® DP 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 grout.
- 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)
1 Day	11000 (75.9)	1.5 x 10 ⁶ (10.4 x 10 ³)	9000 (62.1)	1.4 x 10 ⁶ (9.7 x 10 ³)
7 Days	14000 (96.6)	2.0 x 10 ⁶ (13.8 x 10 ³)	13000 (89.7)	1.9 x 10 ⁶ (13.1 x 10 ³)
Post cured at 140°F(60°C)	16500 (113.8)	2.2 x 10 ⁶ (15.2 x 10 ³)	14500 (100.0)	2.0 x 10 ⁶ (13.8 x 10 ³)

2. Height Change, ASTM C 827,
90°F (32°C)

Positive Expansion

Positive Expansion

3. Effective Bearing Area 95%

95%

4. Tensile Strength,
ASTM C 307

2100 psi (14.5 MPa)

2000 psi (13.8 MPa)

5. Creep, ASTM C 1181, 1 year
400 psi (2.8 MPa),
140°F (60°C)

3.7 x 10⁻³ in/in (mm/mm)

4.3 x 10⁻³ in/in (mm/mm)

6. Flexural Strength,
ASTM C 580

3800 psi (26.2 MPa)

4000 psi (27.6 MPa)

7. Bond to Concrete,
ASTM C 882

Concrete Failure

Concrete Failure

8. Coefficient of Expansion,
ASTM C 531

17 x 10⁻⁶ in/in/°F
(30 x 10⁻⁶ mm/mm/°C)

18 x 10⁻⁶ in/in/°F
(32 x 10⁻⁶ mm/mm/°C)

**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's approval.
- D. Nonshrink epoxy grout shall be Five Star DP Epoxy Grout manufactured by Five Star Products, Inc., Fairfield, Connecticut.