

FIVE STAR STRUCTURAL CONCRETE® HTR SHOTCRETE

PERFORMANCE SPECIFICATION

- A. The concrete repair material shall be a preblended, prepackaged, high temperature resistant, cement-based mortar suitable for application by dry process shotcrete requiring only the addition of potable water. The material shall not contain any chlorides or lime other than amounts contained within the hydraulic composition. The manufacturer shall be ISO 9001 certified and have at least five years experience in the manufacture of cement-based concrete repair materials.
- B. The concrete repair material shall meet all the following typical performance criteria when cured at 73°F (23°C):
1. Compressive Strength, ASTM C 109

3 Hours	2500 psi (17.3 MPa)
1 Day	4500 psi (31.1 MPa)
 2. Bond Strength, ASTM C 882

1 Day	1500 psi (10.4 MPa)
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 3. Coefficient of Thermal Expansion
ASTM C 531

5.0 x 10 ⁻⁶ in/in/°F
(9.0 x 10 ⁻⁶ mm/mm/°C)
 4. Compressive Strength, ASTM C 109
After Exposure to 20 Cycles
at 1000°F (538°C)

5000 psi (34.5 MPa)

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. The concrete repair material shall be Five Star Structural Concrete HTR Shotcrete, as manufactured by Five Star Products, Inc., Fairfield, Connecticut.