

FIVE STAR® FAST SET CEMENT

PERFORMANCE SPECIFICATION

- A. The cement shall be used to blend a field mixed concrete. The material shall not contain any chlorides or lime other than amounts contained within the cement. 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 produced from this cement shall be capable of meeting all the following typical performance criteria when cured at 73°F (23°C):

1.	Compressive Strength, ASTM C 39	
	2 Hours	2000 psi (13.8 MPa)
	1 Day	3500 psi (24.2 MPa)
	28 Days	6000 psi (41.4 MPa)
2.	Length Change, ASTM C 157	
	28 Days Wet	+0.05%
	28 Days Dry	-0.05%
3.	Freeze/Thaw Resistance, ASTM C 666A	
	Relative Durability Factor	90%

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

- C. Typical Mix Design

	<u>Parts by Weight⁽¹⁾</u>
Fast Set Cement	1.0
Concrete Sand ⁽²⁾	1.9
3/8" Pea Gravel ⁽²⁾	2.0
Water ⁽³⁾	0.30 - 0.35

Maximum size of coarse aggregate shall not be greater than one-third the repair depth. Aggregate samples shall be submitted for approval.

- ⁽¹⁾ These are suggested starting weights. Final quantities shall be based on fine and coarse aggregate which is available at the job site.
- ⁽²⁾ These materials should meet the requirements of ASTM C 33.
- ⁽³⁾ Net potable water added should be adjusted to control slump to within 3 to 6 inches (75 to 150 mm) and not to exceed a maximum water:cement ratio of 0.35.

- D. The cement used to blend a field mix concrete shall be Five Star Fast Set Cement as manufactured by Five Star Products, Inc., Fairfield, Connecticut.