

## FASTRAC 220FQ Cement

### Ultra-Rapid Setting Cement

#### **DESCRIPTION**

FasTrac 220FQ Cement is a one-component, shrinkage compensated, proprietary blend of cementitious materials and performance enhancing chemical additives. This rapid setting cement blend is mixed with aggregate and water on site, used for large-scale horizontal concrete repairs, and form and pour vertical applications that require high early-strength gain.

#### **WHERE TO USE**

- Airport runways
- Concrete slab replacement
- Bridge deck repair
- Parking decks
- Horizontal concrete surfaces
- Dowel Bar Retrofit
- Interior or exterior

#### **FEATURES/BENEFITS**

- Very rapid setting; allows structures to be opened to vehicular traffic in 3 hours
- Non-gypsum based with volume stability
- Excellent resistance to freeze/thaw with outstanding durability
- Shrinkage compensation minimizes cracking from drying shrinkage
- Provides low permeability concrete

#### **YIELD**

Approx. 3 yards per bulk-bag/super sack but largely dependent upon aggregate proportion.

#### **PACKAGING**

- 50 lb bag
- 2,000 lb bulk bag

#### **SHELF LIFE**

12 mos. properly stored

#### **STORAGE**

Store and transport in clean, dry conditions

#### **APPLICATION TEMPERATURE RANGE**

40°F to 90°F (Hot weather placement procedures recommended above 90°F; Cold weather placement procedures recommended below 50°F)

#### **HOW TO APPLY**

##### **Surface Preparation** (See ICRI guidelines)

- Concrete must be sound and fully cured (28 days).
- Saw cut the perimeter of the area being patched into a square with a minimum depth of 1/2" (13 mm).
- Remove all unsound concrete and roughen the surface to min. 1/4" profile amplitude.
- Remove all laitance, oil, grease, curing compounds, and other contaminants that could prevent adequate bond.
- The concrete substrate should be saturated surface-dry (SSD), without standing water, before application.
- Blend with aggregate and apply the mixed material onto the prepared saturated surface-dry (SSD) substrate by trowel or screed. Ensure proper consolidation of the mortar and compaction around reinforcing steel. Minimum application thickness is 1" based on a 3/8" max. coarse aggregate. Finish the completed repair, as required, taking care not to overwork the surface.

##### **Reinforced Steel**

Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 03730 "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion."

##### **Mixing**

Approximately .33-.38 water to cementitious materials ratio by weight. Conduct field trials to verify proper slump (approx. 8") yield and a thoroughly mixed product.

**Working time** – Approx. 15-25 min

**Set time** - min. at 72° F (22° C) (ASTM C 191)

Initial 15-25 minutes

Final 25-35 minutes

**Permeability** (ASTM C1202)

28 days <1,000 Coulombs (very low)

**Compressive strength\***- psi. 4x8 cylinders (ASTM C 39)

3 hr 4,000 (27.58 MPa)

1 day 6,300 (43.44 MPa)

28 days 8,000 (55.16 MPa)

\*Compressive strength test was performed on extended (with 3/8" rock and standard concrete sand) mix

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### Curing

Cure immediately after finishing. Use a curing compound that complies with ASTM C 309. In extreme heat, keep the patches covered and damp. Curing is not recommended for dowel bar retrofit applications.

### Clean Up

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

### Health and Safety

Make certain the most current versions of product data sheet and MSDS are being used

### Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. This contains free respirable quartz, which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

### Precautions

KEEP OUT OF THE REACH OF CHILDREN. Prevent contact with skin and eyes. Prevent inhalation of dust. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or is used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

### First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes, and seek medical attention. In case of skin contact, wash affected areas with soap and water. If the irritation persists, seek medical attention. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If the discomfort persists, breathing difficulty occurs, or if swallowed seek medical attention. Refer to Material Safety Data Sheet (MSDS) for further information.

### Proposition 65

This product contains material listed by California as known to cause cancer, birth defects, or other reproductive harm.

### VOC Content

0 lbs/gal or 0 g/L

### Limited Warranty Notice

Every reasonable effort is made to apply exacting standards both in the manufacture of "FasTrac 220FQ Cement" product and in the information, which we issue concerning these products and their use. We warrant our products to be good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only on quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, Western Material and Design, LLC makes no warranty or guarantee, express or implied, including warranties of fitness for a particular purpose or merchantability, respecting its products, and Western Material and Design, LLC shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the Western Material and Design, LLC technical manager.