



Sikacrete® 321 FS

One-component, cementitious, pourable, rapid hardening concrete mix



APPLICATIONS

- ▲ As a structural repair material for bridges, parking facilities, industrial plants and walkways
- ▲ On horizontal, vertical and overhead surfaces (formed)
- ▲ On grade, above, and below grade on concrete
- ▲ Full depth repairs
- ▲ Filler for voids and cavities

ADVANTAGES

- ▲ Complies with ASTM C-928 specifications for very rapid and rapid hardening mortars
- ▲ Very rapid setting structures can be opened to vehicular traffic in 2 hours
- ▲ Non-gypsum based with volume stability
- ▲ Increased resistance to deicing salts
- ▲ Excellent resistance to freeze/thaw with outstanding durability
- ▲ Pre-packaged coarse aggregate: Eliminates need to extend material in the field; Eliminates the risk of reactive aggregate

TYPICAL DATA

- ▲ **Initial Set**
40-50 minutes
- ▲ **Final Set**
50-60 minutes
- ▲ **Application Time**
Approximately 30 minutes
Initial Slump 7-9"
Slump at 15 minutes >5-7"
- ▲ **Flexural Strength (ASTM C-78)** 28 days 700 psi (5.0 MPa)
- ▲ **Splitting Tensile Strength (ASTM C-496)**
 - 1 day 400 psi (2.8 MPa)
 - 7 days 600 psi (4.1 MPa)
- ▲ **Bond Strength* (ASTM C-882 modified)**
 - 1 day 2,500 psi (17.2 MPa)
 - 7 days 3,000 psi (20.7 MPa)
- ▲ **Direct Tensile Bond (ACI 503)** 7 days >250 psi
- ▲ **Compressive Strength (ASTM C-39)**
 - 2 hour 2,500 psi (17.2 MPa)
 - 3 hour 3,000 psi (20.7 MPa)
 - 1 day 5,000 psi (34.5 MPa)
 - 7 days 6,000 psi (41.4 MPa)
 - 28 days 7,500 psi (51.7 MPa)
- ▲ **Shrinkage (ASTM C-157)** <0.06%
- ▲ **Chloride Ion Permeability (ASTM C-1202)**
 - 28 days <1,500 Coloumbs
- ▲ **Freeze Thaw Resistance (ASTM C-666)** 300 cycles >90%

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1. Place 5 pints of water in mixing container.
2. Slowly add Sikacrete 321 FS while continuing to mix. Mix to a uniform consistency, maximum 3 minutes.
3. Mechanically mix with a low-speed drill (400-600 rpm) and paddle or in appropriate-size mortar mixer or concrete mixer.
4. Some mixers will take longer than others to achieve the desired slump.

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