

### TECHNICAL DATA

**DESCRIPTION:** **Deck Pro 7101** Repair Mortar is a shrinkage-compensated, fiber-reinforced, cement based mortar. **Deck Pro 7101** contains polymers and special additives which improve bond strength and promote shrinkage compensation. **Deck Pro 7101** is specially designed for structural repairs to concrete or masonry substrates and can be applied vertically or overhead by hand troweling or low pressure spray.

**USE ON:** Bridges, tunnels, elevated concrete slabs, parking decks, piers, roadways, manholes and sewers

**ADVANTAGES:**

- Fibers provide superior tensile and flexural strengths and reduced drying shrinkage
- Use on horizontal, vertical or overhead repairs
- Excellent finishing characteristics
- Low permeability
- High bond strengths

	1 DAY	7 DAYS	28 DAYS
<b>Compressive Strength</b> (ASTM C 109 Modified)	4000 psi (27.4 MPa)	7500 psi (51.4 MPa)	8000 psi (54.8 MPa)
<b>Bond Strength</b> (ASTM C 882 Modified)	1000 psi (6.9 MPa)	1250 psi (8.7 MPa)	2000 psi (13.7 MPa)
<b>Flexural Strength</b> (ASTM C 348)		900 psi (6.2 MPa)	1000 psi (6.9 MPa)
<b>Splitting Tensile</b> (ASTM C 496)		500 psi (3.4 MPa)	700 psi (4.8 MPa)
<b>Unit Weight</b>	135 lb/ft <sup>3</sup> (2.275 kg/m <sup>3</sup> )		
<b>Drying Shrinkage</b> (ASTM C 157 Modified)	-.035 % (Dry Cured)		
<b>Scaling Resistance 50 cycles</b> (ASTM C 672)	none		
<b>Pot Life</b>	45 minutes		
<b>Initial Set Time</b>	2 hours		
<b>Final Set Time</b>	4 hours		

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**PREPARATION:**

**Concrete:** Perform surface preparation in compliance with ICRI Technical Guideline No. 03730 "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion". Remove all unsound or delaminated concrete providing a minimum of 1/4" (6 mm) substrate profile and 3/4" (20 mm) clearance behind corroded reinforcing steel. The perimeter of the area to be patched should saw cut to a minimum depth of 1/4" (6 mm) to prevent feathered edges. After concrete removal and prior to placement, mechanically abrade the concrete surface to remove all bond-inhibiting materials from the concrete substrate and to provide additional mechanical bond. Presoak the prepared concrete surface to provide a saturated, surface dry (SSD) condition.

**Corroded Reinforcing Steel:** Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 03730 "Guide to Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion". For additional protection from future corrosion, coat the prepared reinforcing steel with HP Bondit III.

**MIXING:**

Add 100 to 105 oz of potable water per 50 lb bag of **Deck Pro 7101**. Mechanically mix using a mixer of an appropriate size. Pour approximately 75% of the water into the mixing container then charge the mixer with the bagged material. Add the remaining water as required. Mix for 3 to 5 minutes until a homogeneous consistency is achieved.

**APPLICATION:**

If applying by hand, scrub a bond coat of **Deck Pro 7101** Repair Mortar into the prepared surface with a stiff bristle broom or brush. **Deck Pro 7101** Repair Mortar must be placed before the bond coat dries. When applying with multiple lifts, scratch the preliminary lift before initial set. Apply the next lift after the preliminary lift has reached final set. If the succeeding lift is not to be immediately placed, keep the surface continually moist. Cut-off or level as required matching the original concrete elevation. For spray applications, confirm with pump supplier suitability of equipment to spray **Deck Pro 7101**. Remove all excess water from the saturated substrate and apply while taking proper consideration for compaction around reinforcing steel. Finish the final surface as required.

**APPLICATION THICKNESS:**

Vertical & Overhead: 3/8 to 2" (10 to 50 mm) per lift.

**CURING:**

Proper curing is extremely important and should be conducted in accordance with ACI 308 "Standard Practice for Curing Concrete". Apply a curing compound such as US Cure & Seal that complies with the moisture retention requirements of ASTM C 309 or moist cure for a minimum of 7 days.

**LIMITATIONS:**

**Deck Pro 7101** should be used when ambient temperatures are 40°F (4°C) and rising. Lower temperatures produce a slower set; higher temperatures produce a faster set. For temperatures below 40°F (4°C) consult with the manufacturer for special cold weather placement provisions which include but are not limited to conditioning of the materials, use of heated mix water and thermal protection. In hot weather use chilled water for mixing.

**PACKAGING:**

**Deck Pro 7101** is packaged in 50 lb (22.72 kilo) Kraft multi-wall, polyethylene lined bags. Yield when mixed with water is approximately .53 ft<sup>3</sup>.

**CAUTION:**

**WARNING! CONTAINS FREE SILICA & PORTLAND CEMENT. DO NOT BREATHE DUST.** May cause delayed lung injury (silicosis). Follow OSHA safety and health standards for crystalline silica (quartz). Cement powder or freshly mixed concrete grout or mortar may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with water. If any cement powder or mixture gets into the eyes, rinse immediately and repeatedly with water and get prompt medical attention.