



CE700 HPC

HYBRID POLYMER CONCRETE

DESCRIPTION

FasTrac CE700 HPC is a three-component hybrid polymer concrete system containing engineered polymer resins and specially selected aggregates. When properly mixed, the reacted chemistry produces a durable polymer concrete composite designed for bridge deck overlays, patching, and resurfacing applications. Specifically designed to resurface and restore prepared concrete surfaces from 1/2" to 12" in one application lift. The system can be utilized for variable depth cross sections. Return to traffic within 3 hours.

USE

- Bridge deck resurfacing
- Concrete repair
- Grade correction
- Elevated parking structure overlays

FEATURES

- Rapid return to traffic – less than 3 hours
- Impermeability provides excellent protection against chloride intrusion increasing structure life
- High abrasion resistance
- Low modulus formula produces less stress on the substrate
- Excellent thermal compatibility
- No volatile chemical odors, zero VOC.
- Durable in extreme climatic conditions
- Self-priming, no primer required
- Freshly placed system can be tined to produce a traction profile
- Optional high friction aggregate surface can be added for increased traffic safety

PACKAGING AND YIELD

1.25 cu. ft.:

1.0 gallon Part A - liquid / 1.0 gallon Part B - liquid / 3 – 50 lb. bags Part C – aggregate

5.0 cu. ft.:

4.0 gallons Part A – liquid (pail) / 4.0 gallons Part B – liquid (pail) / 12 – 50 lb. bags Part C – aggregate

2.3 cu. yd.:

50 gallons Part A – liquid (drum) / 50 gallons Part B – liquid (drum) / 3– 2500 lb. (bulk bag) Part C - aggregate

11.6 cu. yd.:

250 gallons Part A – liquid (tote) / 250 gallons Part B – liquid (tote) / 15 – 2500 lb. (bulk bag) Part C - aggregate

Yield: Four gallons (15.2 L) liquid with 300 lb. aggregate yields 2.5 cu. ft. or 30 sq. ft. at 1" thick.

PHYSICAL PROPERTIES

Shelf Life: 2 years in original unopened containers

Storage Conditions: 40°F-95°F (5°C-5°C)

Conditioning: 65°F-85°F (18°C-29°C)

Mix Ratio (polymer): 1:1 by volume

Viscosity (polymer): 1,200 cP

Gel Time (60g polymer): 15 minutes

Tack Free Time: (73°F/23°C): 3 hours

Tensile Strength (ASTM D638): <2,500 psi (17.2 MPa)

Tensile Elongation (ASTM D638): >50%

Bond Strength (ASTM C1583/ACI 503r): >250 psi (1.7 MPa), 100% substrate failure

Compressive Strength (ASTM C579) 24 hours: >2,000 psi (13.8 MPa)

Shrinkage (ASTM D2566): 0.2%

Thermal Compatibility (ASTM C884): Pass

Absorption (ASTM D570) polymer only, 24 hours: 0.2%

Chloride Ion Permeability (AASHTO T277): 0.0 coulombs

CURING TIME

Temperature (°F): 60 65 70 75 80

Minimum Cure Time (hr): 5 4 3.5 3 2

APPLICATION

SURFACE PREPARATION:

Prepare surface in accordance with ICRI Technical Guideline No. 03732. Surface must be clean and sound. Surface must be free of standing water. Remove curing compounds, laitance, grease, rubber and any foreign matter. For best results, shot blasting, sandblasting and scarifying are the preferred methods of preparation. Prepared surface should have a concrete surface profile of ICRI CSP 5-7. Remove rust from exposed reinforcing steel. Have all necessary equipment near area to permit rapid and continuous placement. All bagged aggregates and liquid resins should be stored in a clean, cool, dry environment. Remove all unsound concrete and establish a sound concrete foundation.

MIXING: Preferred method is to use automated installation equipment. When mixing and applying manually, mix only the amount of material that can be used within its pot life. Proportion each liquid component carefully into a clean pail. Mix thoroughly for 3 minutes with a Jiffy mixer on low speed (400-600rpm). Scrape the sides and bottom of the container. To prepare a repair mortar, slowly add 300 lbs. of the engineered aggregate to every 4 gallons of mixed polymer. Mix only until all aggregate is wetted out. Volumetric mixers may be utilized to increase production.

INSTALLATION and FINISHING: Use FASTRAC CE700 HPC liquid polymer part only as a primer when necessary. Place FASTRAC CE700 HPC with a vibratory strike off screed or slipform paver as appropriate for the application. Standard hand tools can be used for small repairs. FASTRAC CE700 HPC can be finished to the desired surface profile. When using optional high friction aggregate, broadcast aggregate and lightly roll it into FASTRAC CE700 HPC.

LIMITATIONS

Minimum substrate temperature is 50°F (10°C). Do not thin. Solvents will prevent proper cure. Cured material is a vapor barrier.

CLEAN UP

Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations. Uncured material can be removed with Natural Clean or other approved solvent. Cured material can only be removed mechanically.



CE110 INJECTION RESIN

SUPER LOW VISCOSITY INJECTION RESIN

LIMITED WARRANTY

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