



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, resurfacing applications and grade corrections. 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.

USE

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

FEATURES

- Strong like concrete, flexible like asphalt
- Rapid return to traffic – as little as 2 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 friction aggregate surface can be added for increased traffic safety

PACKAGING AND YIELD

0.5 cu. ft. Patching Kit : 0.5 gallon Part A / 0.5 gallon Part B—liquid / 50 lb. Part C - Aggregate

1.0 cu. ft. Patching Kit:

1.0 gallon Part A - liquid / 1.0 gallon Part B - liquid / 2 – 50 lb. bags Part C – aggregate

5.0 cu. ft. Patching Kit:

5.0 gallons Part A – liquid (pail) / 5.0 gallons Part B – liquid (pail) / 10 – 50 lb. bags Part C – aggregate

Volumetric Mixing (per ~1.0 cu. yd.):

50 gallons liquid (25 gallons Part A, 25 gallons Part B)
3000 lb. Part C—aggregate

PHYSICAL PROPERTIES

Shelf Life: 2 years in original unopened containers

Storage Conditions: 40°F-95°F (5°C-35°C)

Conditioning: 65°F-90°F (18°C-32°C)

Mix Ratio (polymer): 1:1 by volume

Viscosity (polymer): 1000 - 1500 cP

Gel Time (60 g): 10 minutes minimum

Traffic Open Time (ASTM D1640, 73°F/23°C): <3 hours

Tensile Strength (ASTM D638): 2,000 - 2,500 psi (17.2 MPa)

Durometer (ASTM D 2240): 60 to 80

Tensile Elongation (ASTM D638): >50%

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

Compressive Strength (ASTM C579) 12 hours: >2,000 psi (13.8 MPa)

Shrinkage (ASTM C531, 7 days): 0.01%

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	85	90	95
Standard (hrs):	5	4	3.5	3	2	1.5	1	0.5
W/Accelerator (hrs)	4	3	2.5	2	1.5			

*Cure time based on mixed and placed material temperature. Sunlight, as well as substrate and ambient temperatures will also affect cure time.

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, sand-blasting 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, 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 the engineered aggregate to the mixed polymer to achieve desired consistency and 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 as a primer only 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 friction aggregate, broadcast aggregate and lightly float or roll it into freshly placed 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.



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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.

LIMITED WARRANTY

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