

K A U F M A N

PRODUCT
INFORMATION

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HiCap FT

Description

HiCap FT is a quick setting, cementitious patching and finishing compound. HiCap FT is composed of special Portland cements and polymers, graded and washed silica aggregates, unique accelerating additives, workability agents and water reducing agents. However, the most exciting feature of the HiCap FT product is the chemical engineering that blocks both water intrusion and deicing chemicals from destroying the repair mortar. In most instances, freeze-thaw cycling and deicing chemicals will cause cementitious repair mortars to simply fall apart after limited exposure. Now with these unique proprietary advancements, it is possible to engineer repair mortars with a significantly greater lifespan and a greater return on investment than the ordinary repair mortars on the market.

HiCap FT may be featheredged or shaved to the desired shape, after achieving an initial set. HiCap FT is designed for applications of approximately 1/2" to featheredge.

Uses

HiCap FT, combined with water or our SureBond latex modifier, is an excellent choice to repair or finish broken, chipped and spalled areas of concrete, especially in overhead and vertical applications. HiCap FT is ideal for use in repairing precast or pre-stressed concrete. Whether it is a bridge beam, box culvert, concrete pipe, or lawn ornaments, the unique carvability will help you to produce a quality repair.

Packaging/Yield

50 pound pail .45 ft³
50 pound bag .45 ft³
500 pound drum 4.5 ft³

Specification

ASTM C-928, Rapid Hardening (R2)*

Directions

Surface Preparation

Surfaces must be structurally sound, clean, and free of loose or deteriorated concrete, rust, marine growth, oily materials and all contaminants. Undercut all edges of the area to a minimum depth of 1/4". Clean exposed steel and reinforcing.

Physical Properties - 75°F

Initial Set (AASHTO T-131)	Initial Set 20 minutes
	Final Set 34 minutes
Compressive Strength (ASTM C-109)	3 hours 2,500 psi. 1 day 3,500 psi. 7 days 5,500 psi 28 days 7,000 psi
Flexural Strength (ASTM C-348)	@ 28 days 930 psi.
Hardened Height Change (ASTM C-1090)	1 day 0% 3 days +0.02% 14 days +0.03% 28 days +0.08%
Slant Shear Bond Strength (ASTM C-882)	@ 1 day 1,800 psi. @ 7 days 2,400 psi.
Percent Length Change In Air (ASTM C-157)	@ 28 days -0.06%
Percent Length Change In Water (ASTM C-157)	@ 28 days +0.06%
Freeze-Thaw Testing (NYS DOT Test Method 502-3P)	0% mass loss
Freeze-Thaw Testing (VDOT, VTM 132, Test D)	-4.58% @ 25 Cycles
Rapid Chloride Penetration (VDOT, VTM 132, Test F)	590 coulombs
Chloride Content (AASHTO T-260)	0.005%
Freeze-Thaw Resistance Relative Dynamic Modulus (ASTM C-666, Procedure A)	98%
Scaling Resistance (ASTM C-672, 50 cycles)	.79 lbs./ft ²

Roughen the surfaces to which HiCap is intended to bond for good mechanical adhesion. Pre wet the prepared area with potable water for approximately 15 minutes immediately before application of HiCap. All surfaces to be repaired should be in a saturated surface dry (SSD) condition without standing water on the surface.

Application

Mix 50 lbs. of HiCap FT with 3.4-3.6 quarts of potable water. Thoroughly mix until uniformly blended but no more than 60 seconds. The use of a low RPM (1/2" drill) and a mud paddle is recommended. Do not retemper or add sand to this mix. Do not ever add plasticizers, accelerators, retarders, or any other ingredients besides potable water unless advised by Kaufman Products in writing.

Scrub HiCap FT intimately into the pores of the roughened surfaces with a gloved hand, then pack the rest of the area with the mixed material immediately. For best adhesion, prime with SureBond, SureWeld, or the proper SurePoxy Bonding Agent. Apply by trowel and slightly overfill the patch and allow it to set for a short time. Shave to the desired shape or finish before HiCap FT gets too hard. Always shave toward the common bonding edge between the HiCap FT and surrounding area. After finishing, HiCap FT can be rubbed with a wet sponge and textured if desired. Adequate curing is essential. Consider using Krystal 25 Emulsion, Krystal 30 Emulsion, or a state approved Thinfilm Series Product.

Cold Weather Placement

HiCap FT will set faster than the mixing water will freeze. When the temperature is below 35° F, do not pre-wet the area to be patched. Use heat to eliminate frost from the substrate but do not heat the surface to above 70° F. Use warm water for mixing to help shorten the setting time. The use of Excell NC would be beneficial in speeding the initial setting of HiCap FT. Do not apply heat to the patch after it has been installed.

Notes

Never re-temper. Application should always be finished by the time of initial set or stiffening. Read Safety Data Sheet before using.

Technical Information

The following results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.