



FX

LOW VISCOSITY CONCRETE REPAIR

FX is a rapid set, high strength ultra low viscosity Urethane repair material. This two part, 1:1 system is designed for rebuilding and repairing broken control joints and spalled concrete surfaces very quickly. FX is intended for repairing damaged control joints or warehouse spalls damaged from forklifts, steel wheeled carts, etc

Applications

- Fill pin holes and small surface defects before polishing
- Rebuilding control joints
- Shallow spalls on bridge decks
- Traffic area spalls & crack repairs
- Structural Crack Injection
- Floor repair
- Stops additional damage
- Fill & repair spall before coating
- Used to “knit” cracked slabs
- Fill voids under concrete or tile

Limitations

- Do not thin, solvents will prevent proper cure.
- Avoid exposure to moisture prior to curing
- Material is a vapor barrier after cure
- Concrete should be at least 28 days old prior to application

Advantages

- Meets USDA and FDA Requirements
- Meets the USGBC’s LEED® requirement of IEQ Credit 4.1
- Cures From -20°F to 130°F
- “Drive-Over” in 30 minutes
- Produces High Strength Quickly
- Self-leveling
- Self Priming
- Fast initial set; rapid gain to ultimate strengths.

Physical Properties

Viscosity (mixed)	25 cps
Shore “D” Hardness (ASTM D-2240)	67 to 72D
Tensile Strength, PSI (ASTM D412)	4600
Pot Life 100 grams at 74°F	100 Seconds
Elongation % (ASTM D-412)	6%-8%
Compressive Strength (ASTM D-695)	
Material Neat	3900 psi
Material with Sand	4800 psi
Adhesion (ASTM D7234-12)	Concrete Failure

Available in

- 22 oz. Cartridges
- 1 Gallon Kits
- 2 Gallon Kits
- 10 Gallon Kits

Shelf Life

1 year in original unopened container.

Storage Conditions

Recommended storage temperature is between 75°F to 95°F. Do not store below 45°F.

Consistency

Ultra Low Viscosity

Pot Life

Approx. 100 Seconds
(100 gram mass)

Appearance

Off White, Custom Color
Matching Available



Coverage Information

To calculate the amount of material required to make a repair, calculate cubic inches by multiplying the approximate length x width x height. Always remember to convert feet to inches. For example a 3" x 3" x 1/2" spall would be 4.5 cubic inches and there are 231 cubic inches per gallon. Add 10-15% to account for waste and overfill.

Trowelable Application Coverage

Significant Surface Damage - 200-400 sf per Gallon
Moderate Surface Damage - 500-700 sf per Gallon
Minimal Surface Damage - 800-1000 sf per Gallon

Approximate Coverage Rates

1/8" x 1" Crack - 154 lf/gal
1/4" x 1" Crack - 77 lf per gal
1/2" x 1" Crack - 39 lf per gal

Divide lf/gal by 5.8 to calculate coverage rate per cartridge

Chemical Resistance

Test Procedure; ASTM D-1308 @72°F

R=Recommend

RC=Recommend Conditional =some swelling or discoloration

N=Not Recommend

1=Some discoloration only

Chemical	Result
Acetic Acid 10 %	R
Acetone	RC
Battery Acid (Sulfuric Acid)	RC
Brake fluid	R
Chlorine (2,000 ppm in water)	R
Citric Acid	R
Gasoline	R
Hydraulic Oil	R-1
Methanol (5%) Gasoline	RC
Motor Oil	R-1
Toluene	RC
Vinegar	R
Water	R
Xylene	R

Application Recommendations

Clean the area of debris and contaminants that would act to debond FX; oils, loose materials, dirt, rubber etc. Expose clean rough concrete for best results. If using a saw to cut concrete and clean the crack, remove all the dust from the cut out area. Cut a vertical edge, minimum 1/2" deep, around perimeter of spall. Make sure the area is dry. Vacuum or blow off cement dust.

Where the crack is deep:

- Apply product to the bottom of the crack and work up in layers.
- First apply product then sand into the product, then more product & sand.
- Repeat the steps in layers until reaching the finished grade.

Filler:

Sand filler should have minimal moisture content. Grit sizes from 12 to 60. In exterior applications, the use of dry silica sand will reduce discoloration from UV Rays. Pea gravel can be used on very large spalls. HT Spall-FX can be used to bond damaged slabs together. Not intended for use where substrate movement is required. HT Spall-FX is slightly moisture sensitive and should not be applied to very wet surfaces.

Grinding to finish grade:

Allow FX to set about 15 minutes or until hard. For best results use a flexible grinding wheel. Grind smooth with a 7-inch wheel. Scrapping or cutting may also be done with a sharp razor blade cutter. Cut as soon as product is set and not completely hard. Repair is now ready for traffic.

Safety and Handling

SDS will be mailed immediately upon receipt of a purchase order or upon request. All personnel should read and understand product Safety Data Sheets provided. Long sleeved overall or disposable overalls, rubber gloves, splash shields, rubber or leather boots should be worn. Do not use near high heat or open flame. Do not take internally. Keep out of the reach of children.

Warranty

HI-TECH warrants its products to be free of manufacturing defects will meet HI-TECH's current published physical properties when applied in accordance with HI-TECH's directions and tested in accordance with ASTM and HI-TECH's standards. There are no other warranties by HI-TECH of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. HI-TECH Corporation shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty, whether expressed or implied, including any warranty of merchantability or fitness for a particular purpose or from any other cause whatsoever.



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