

# HI-TECH Systems

## SPALL FX2 Rapid Cure Spall & Crack Repair

### Product Description:

*HT Spall-FX2* is a rapid set, high strength ultra low viscosity Urethane repair material. This two part, 1:1 system is 98% solids and designed for rebuilding and repairing broken control joints and spalled concrete surfaces very quickly. *HT Spall-FX2* is intended for repairing damaged control joints or warehouse spalls damaged from steel wheels or small hard urethane wheels. *HT Spall-FX2* has an extended pot life for larger jobs requiring more time.

### Applications:

- ✓ Rebuilding control joints
- ✓ Shallow spalls on bridge decks
- ✓ Traffic area spalls & crack repairs
- ✓ Grade matching
- ✓ Floor repair
- ✓ Stops additional damage
- ✓ Fill & repair spall before coating
- ✓ Used to "knit" cracked slabs

### Advantages:

- ✓ Meets USDA and FDA Requirements
- ✓ Meets USGBC LEED Criteria – IEQ4.1
- ✓ Cures from -20° F to 130° F.
- ✓ "Drive-Over" in 10 to 15 minutes
- ✓ Produces High Strength Quickly
- ✓ Self-leveling
- ✓ Self Priming
- ✓ Fast initial set; rapid gain to ultimate strengths.

### Physical Properties:

Viscosity (Mixed)	25 cps
Hardness, durometer (ASTM D2240)	67 to 72D
Tensile Strength, PSI (ASTM D412)	4600
Elongation % (ASTM D412)	6% to 8%
Compressive Strength (neat)	3900 psi
(ASTM C109 (with sand)	4800 psi
Bond Strength (ASTM 882-99)	3450 psi

### Concrete Application Recommendations:

Clean the area of debris and contaminants that would act to debond *HT Spall-FX2*; 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 ½" 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-FX2* can be used to bond damaged slabs together. Not intended for use where substrate movement is required. ***HT Spall-FX2 is slightly moisture sensitive and should not be applied to very wet surfaces.***

#### **Grinding to finish grade:**

Allow *HT Spall-FX2* to set about 20 minutes or until hard. For best results use a flexible grinding wheel. Grind smooth with a 7-inch wheel. Scraping 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.

**Shelf Life:** 1 year in original unopened container.

**Storage Conditions:** Recommended storage temperature is between 75°F to 85°F. Do not store below 45°F or above 85°F.

**Pot Life:** C-881 77° – 100 Grams  
Approx. 6 minutes average

**Coverage Information:**

Must consider waste. For random cracks, guesstimate the average size. Crack depth is unknown causing more or less use of the product. For bulk repairs, calculate the cubic inches required. 1 gallon = 231 cubic inches. 1 part sand to 1 part product typically doubles the amount.

**22 oz. Cartridge Coverage Rate:**

Width	1/4"	1/2"	3/4"	1"	1-1/4"	1-1/2"
1/4"	52.9					
1/2"	26.5	13.2				
3/4"	17.6	8.8	5.9			
1"	13.2	6.6	4.4	3.3		
1 1/4"	10.6	5.3	3.5	2.6	2.1	
1 1/2"	8.8	4.4	2.9	2.2	1.8	1.5
1 3/4"	7.6	3.8	2.5	1.9	1.5	1.2
2"	6.6	3.3	2.2	1.6	1.3	1.1
2 1/2"	5.3	2.6	1.8	1.3	1.1	.87
3"	4.4	2.2	1.5	1.1	.87	.73

**Available In:**

- 22 oz. & 56 oz. Cartridges
- 1 Gallon Kit (with proportioning chambers)
- 2 Gallon, 5 Gallon, 10 Gallon Kits

**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

<u>Chemical</u>	<u>Result</u>
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

**Safety:**

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

**Disposal And Clean Up:**

Empty containers must be drip free. Cured product may be disposed of without restrictions. Excess liquid 'A' and 'B' material should be mixed together and allowed to cure, then disposed of in the normal manner. Cured materials may be stripped or peeled from plastic tools and containers. It is recommended that metal tools be cleaned within one hour of use by cutting or peeling cured material form tool.

**Warranty:**

HI-TECH warrants its products to be free of manufacturing defects and that they 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.