

# HI-BOND CEMENT

Polymer Modified Repair Mortar

**PATCHING AND REPAIR  
RESURFACING AND REPOINTING**

## MANUFACTURER:

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## PRODUCT DESCRIPTION:

*HI-BOND CEMENT* is a single component, Portland Cement based, polymer modified patching, repointing and leveling compound. It is designed for use over concrete, plywood and all masonry surfaces. High bonding and self-curing, it will provide high strength patches from a featheredge up to 1/2".

## USES:

- ▶ Patch spalled concrete areas
- ▶ Level low areas in concrete slabs
- ▶ Setting bed for brick, flagstone, quarry tile, pavers, etc.
- ▶ Repoint all masonry joints and grouting between floor tile, marble and flagstone
- ▶ Concrete floors, driveways, walkways, steps and patios
- ▶ Horizontal or vertical surfaces
- ▶ Indoors or outdoors, above or below grade

## ADVANTAGES:

- ▶ One component, add water only
- ▶ Easy to apply
- ▶ High bond and compressive strength
- ▶ Self-curing, dries overnight, natural cement color
- ▶ Can be featheredged
- ▶ Non-shrink, non-staining
- ▶ Accepts cement based and latex paints after curing
- ▶ Provides water resistant finish
- ▶ Can be blended with RAINBOW CEMENT COLORS to match surrounding area.

## INSTALLATION:

### Surface Preparation:

Surfaces to be coated must be structurally sound, clean, and free of dust, dirt, oils, paints and all other contaminants that will prevent proper bond. RAINBOW PURE TRI SODIUM PHOSPHATE is an excellent heavy duty cleaner to use. Loose concrete and rust on steel rods must be removed by sandblasting, waterblasting, chipping or wire brushing. Coat all metal with a slurry coat of *HI-BOND CEMENT* and EMPIRE BLENDED EM-CRYL 600. Floors that have been polished smooth or sealed should be tested for adhesion. To test, apply a sample patch at least 1 square foot, wait 2-4 days, and then try to lift the patch with a screwdriver. All mortar joints to be re-pointed must be free of any loose mortar and cut back to a sound surface. Flush all joints clean with water or compressed air. Dampen surface with clean water to the point of saturation but allow no standing water prior to placing material.

### Mixing:

Add clean water to a suitable, clean container at the rate of 1 quart for each 15 pounds of *HI-BOND CEMENT*. Mix to a creamy lump-free mortar consistency suitable for the application. Excessive amounts of water will decrease the strength of the patch. Allow the mixed material to stand for 5 minutes, remix and apply.

### Placement:

Place mixed material with a steel trowel, applying pressure to ensure complete filling of all voided areas, but do not overtrowel. Finish with steel trowel, brush or sponge. Keep trowel wet when finishing to avoid pulling material and clean immediately after use with clean water. For areas deeper than 1/2" place material in successive layers, scoring previous layer with trowel after placing. Allow first layer to harden before

placing next layer. For areas greater than 1/2" thick which must be repaired in 1 layer, use EMPIRE BLENDED PATCH ALL. Concrete walkways, patios, etc. may seem unsightly after patching. If desired, mix a slurry coat of *HI-BOND CEMENT* and water to a heavy batter like consistency and brush coat over entire area to blend color and finish.

When repointing masonry joints, dampen joints slightly, then apply *HI-BOND CEMENT* by using a tuck pointing trowel forcing the material into all voided areas. For joints deeper and or wider than 1/2", backfill first to within 1/4" of finish surface and allow backfilled area to cure 24 hours before finish coat is applied. *HI-BOND CEMENT* may be used as a grouting mortar for sealing pores and shrinkage cracks in mortar joints of structural glazed tile, smooth and glazed brick or smooth floor brick. Rough surface brick or tile should first be taped before grouting. Scrub slurry mix into joints with a stiff bristle brush to fill small cracks with mortar keeping brick face as free of material as possible. If faces have been taped, remove before material reaches set. While material is still fresh, wipe excess with grout float, damp sponge or damp burlap. After initial set is reached repeat cleaning procedure with dry sponge or burlap.

**Curing:**

*HI-BOND CEMENT* is self-curing under most conditions, however like all cement based products, moist curing is preferable. Repaired areas exposed to high temperatures, direct sunlight or extremely windy conditions should be lightly misted with water or covered with damp burlap for 24 hours. Most applications under normal conditions can be used for light traffic after 24 hours and heavy traffic after 48 hours.

**Coverage:**

1 pound of *HI-BOND CEMENT* covers approximately 1 square foot at 1/8" thickness. Used as a repointing mortar, 1 pound will fill 17 cubic inches. Used as a brush-applied slurry coat, 1 pound covers approximately 4-5 square feet.

**Packaging:**

Available in 10 pound plastic jars (4 per carton) and 40 pound multiwall paper bags with moisture barrier.

**Color:**

Light Gray – Empire Blended Rainbow Cement colors may be added to achieve a colored finish at the rate of 1 pound per 40 LB bag

***TECHNICAL DATA:***

Set Time (ASTM C-191)	
Initial . . . . .	60 minutes
Final . . . . .	120 minutes
Compressive Strength (ASTM C-109)	
7 day . . . . .	4250 psi
28 days . . . . .	5450 psi
Tensile Strength (ASTM C-190)	
7 day . . . . .	385 psi
28 days . . . . .	475 psi
Flexural Strength (ASTM C-348)	
7 day . . . . .	900 psi
28 days . . . . .	1100 psi
Shear Bond Strength (ASTM C-882)	
7 day . . . . .	1425 psi
28 days . . . . .	1980 psi
Shrinkage (ASTM C-157)	
28 days . . . . .	- 0.095%
Scaling Resistance (ASTM C-672)	
25 cycles . . . . .	0.0% loss

***LIMITATIONS:***

Do not use when temperature is below 40°F or expected to fall below 40°F within 24 hours of application. Do not use any additives.

***CAUTION:***

Contains Portland Cement CAS #65997-15-1. Freshly mixed cement products may cause skin injury. Avoid contact with skin where possible and wash exposed areas promptly with water. If any product gets into the eye, rinse immediately and repeatedly with water. If ingested, **do not** induce vomiting and get prompt medical attention. Also contains Sand CAS #14808-60-7. Avoid breathing dust. Prolonged exposure to dust may cause delayed lung injury (silicosis) or cancer IARC Class 2A. Wear NIOSH approved mask for silica dust. **Keep Out Of Reach Of Children.**

***WARRANTY:***

Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either Empire Blended Products or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.