EP-PATCH 7040

HIGH-PERFORMANCE, LOW-MODULUS, EPOXY PATCHING MORTAR

DESCRIPTION

EP-PATCH 7040 is a three-component, high-performance, 100% solids, multi-purpose, non-shrink epoxy patching mortar. This low-modulus material offers excellent bond strength and outstanding workability, providing extended working times for higher temperature applications. The EP-PATCH 7040 system combines a high-quality epoxy resin and curing agent with an engineered blend of graded aggregate.

APPLICATIONS

EP-PATCH 7040 is ideal for high-stress applications such as bridge decks, airport runways, loading docks, warehouse floors and other concrete repair applications. EP-PATCH 7040 is the recommended choice for patching concrete prior to installing epoxy polymer overlays and other top coatings, since there is no hydration or shrinkage during cure.

ADVANTAGES

- High impact resistance, high early strength
- Low modulus
- Non-shrink
- Open to traffic in 5 hours (@75 °F)
- Excellent workability, extended working times
- Chemically bonds to concrete
- Pre-measured units
- Withstands freeze thaw cycles
- Easy soap and water clean up
- Excellent choice for spalls and deteriorated joint edges

COMPLIANCES

- Made in the USA with global materials

PACKAGING

0.5 cu. ft. unit

- Component A: (1) gallon can (partial fill)
- Component B: (1) gallon can (partial fill)
- Component C: (1) 50 lb. bag

2.0 cu. ft. unit

- Component A: (1) 5-gallon pail (partial fill)
- Component B: (1) 2-gallon pail (partial fill)
- Component C: (4) 50 lb. bags

Appearance of Components: A - Gray, B - Amber
Shelf Life: 2 years in original unopened container
Storage: 40 °F to 95 °F in dry and dark conditions
Temperature Considerations: IMPORTANT! Epoxy resins are temperature sensitive and care should be taken to condition all components between 65 °F to 95 °F for a minimum of 24 hours prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time.
Mixing and curing at less than ideal temperatures <50 °F or >95 °F will require special considerations.

COVERAGE

- 0.5 cu. ft. unit covers 0.5 cu. ft.
- 2.0 cu. ft. unit covers 2.0 cu. ft.

CURE TIME

Use the table below to determine minimum cure times based on the temperature of the materials and substrate.

INSTALLATION

	Average Temperature of Materials & Substrates (° F)					
Cure Temp	60-64	65-69	70-74	75-79	80-84	85+
Course 1	8.5 hr	7.5 hr	6 hr	5 hr	4.5 hr	3.5 hr

*Set times are merely averages. Site conditions will dictate actual cure response for open to traffic time.

Surface Preparation: Concrete shall have reached its design strength and surface shall be free of standing water A saturated surface dry condition, although not ideal, is acceptable. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for the EP-PATCH 7040. All metal surfaces to come in contact with EP-PATCH 7040 should be sandblasted to white metal finish and wiped clean with solvent.

- Step 1: Saw cut approximately ½" deep around perimeter of area to be patched and remove all deteriorated and unsound concrete with chipping hammers not to exceed 30 lbs.
- Step 2: Thoroughly clean patch area and exposed reinforcing steel by sandblasting to white metal finish. Remove all dust and loose particles from installation area.

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Mixing: EP-PATCH 7040 is packaged in pre-measured 0.5 cu. ft. or 2.0 cu. ft. units. Mix these products ONLY in complete units. DO NOT THIN or add any solvents prior to mixing.

0.5 cu. ft. kit: Component A (Resin) and Component B (Hardener) are packaged in separate 1-gallon containers. Pour Component B (Hardener) and Component A (Resin) into a 5-gallon pail and mix thoroughly for 3 minutes with a Jiffy Mixer paddle or similar on low-speed (300 rpm) until material is a uniform consistency. NOTE: Keep mixer at bottom of pail to avoid introducing air. After liquid components are mixed, slowly add Component C (Aggregate). Mix on low speed until all aggregate is wetted out, stop mixer. DO NOT OVER MIX!

2.0 cu. ft. kit: Component A (Resin) is packaged in a 5-gallon pail, Component B (Hardener) is packaged in a 2-gallon pail, and Component C (Aggregate) is packaged in four (4) 50 lb. bags. Pour Component B into 5-gallon pail containing Component A. Mix thoroughly for 3 minutes with a Jiffy mixer on low-speed (300 rpm) until material is a uniform consistency. NOTE: Keep mixer at bottom of pail to avoid introducing air. Pour liquids into mortar mixer, making sure to remove all resins from sides and bottom of pail with spatula or similar tool. Introduce first bag of Component C (Aggregate) prior to starting mixer. Start mixer and slowly add the remaining three (3) bags of aggregate. Mix on low speed until all aggregate is wetted out, stop mixer. DO NOT OVER MIX!

Placement: Prime patch area with mixed Component A and Component B using a brush or roller. Immediately place patch. Set screeds or float to desired level, strike off, thoroughly compact and finish the surface. Do not over finish, as this will cause the resin to float, leaving the patch slick and potentially weaker on the surface. Approved solvents may be used on tools to aid in finishing. This material is designed for small patch areas. If using on full depth or area(s) larger than 16 sq. ft., consult E-Chem representative for recommendations.

LIMITATIONS

- For professional use only
- Do not thin with solvents
- Compressed air equipment must have an oil/air separator
- Contact E-Chem representative before applying as a repair mortar if concrete is < 28 days old
- Substrate temperature should be a minimum of 65 °F
- EP-PATCH 7040 is a vapor barrier after curing
- Consult E-Chem representative when mixing or placing outside of the temperature recommendations listed

CLEAN UP

Equipment: Uncured material may be removed with C-Clean100 or approved solvent. Cured material may only be removed mechanically.
Material: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

CAUTIONS

READ SDS PRIOR TO USING PRODUCT!

- Component A: Irritant
- Component B: Corrosive
- Product is a strong sensitizer - wear chemical resistant gloves, protective clothing, eye protection and face protection
- Use in a well-ventilated area and avoid breathing vapors
- Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate
- Avoid skin contact

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FIRST AID

EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.
RESPIRATORY CONTACT: Remove person to fresh air.
SKIN CONTACT: Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant into the skin. Wash skin thoroughly with soap and water.
IF INGESTED: Do not induce vomiting. If swallowed give water to drink. Seek medical treatment immediately.
GENERAL: Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.
CURED EPOXY RESINS ARE INNOCUOUS.

WARRANTY

This product is warranted and guaranteed to be of good quality. Manufacturer, as its sole and exclusive liability hereunder, will replace material if proved defective. This warranty and guarantee are expressly in lieu of all others, express or implied, including any implied warranty of merchantability or fitness for a particular purpose and may not be extended by representatives or any persons, written sales information, or drawing in any manner whatsoever. While the manufacturer recommends uses for the product based on tests believed reliable, no warranties, express or implied, or guarantees can be given as to particular methods of use or application, nor can performance be warranted, expressly or impliedly, or guaranteed under special conditions. Distributors, salespersons or company representatives are not authorized to extend or vary any warranties or guarantees beyond those outlined herein, nor may the manufacturer or seller's limitation of liability be waived or altered in any manner whatsoever. For additional details, please refer to the Terms and Conditions.

PHYSICAL PROPERTIES[1,2,3]

Property	Standard	Units	Values
Viscosity (75 °F)	ASTM C881	psi	1,500 - 2,000
Gel Time (75 °F)		Minutes	15-20
Compressive Strength (7 days w/sand)	ASTM C579	psi	>5,000
Tensile Strength (75 °F)	ASTM D638	%	>2,000
Tensile Elongation (75 °F)			50 - 60
Thermal Compatibility	ASTM C884	Pass/Fail	Pass

1. Product testing results based on representative lot(s). Average results will vary according to the tolerances of the given property.
2. Full cure time is listed above to obtain the given properties for each product characteristic.
3. Results may vary due to environmental factors such as temperature, moisture and type of substrate.