

EP50-OVERLAY FAST

LOW-MODULUS EPOXY POLYMER

DESCRIPTION

EP50-OVERLAY FAST is a solvent-free, moisture-insensitive, 100% solids, low-modulus, two-component polymer overlay resin designed primarily for bonding skid-resistant overlays.

APPLICATIONS

- Bridge Decks
- Elevated Slabs
- PCCP
- Parking Decks
- Roadway curves/slopes for high friction surface applications
- Concrete Patching Mortar

ADVANTAGES

- Excellent bond strength
- Moisture insensitive
- Nonflammable
- Easy to mix - 1:1 ratio
- High early strength
- Low modulus
- Low viscosity
- Epoxy polymer
- No primer required
- Designed for automated pump or hand mix application

COMPLIANCES

- ASTM C881 Type III Grade 1 Class B & C
- ZERO VOC
- Made in America

PACKAGING

2-gallon unit

- Component A: (1) 1-gallon pail
- Component B: (1) 1-gallon pail

10-gallon unit

- Component A: (1) 5-gallon pail
- Component B: (1) 5-gallon pail

110-gallon unit

- Component A: (1) 55-gallon drum
- Component B: (1) 55-gallon drum

500-gallon unit

- Component A: (1) 250-gallon tote
- Component B: (1) 250-gallon tote

Appearance of Components: A - Clear, B - Yellow

Shelf Life: 2 years in original unopened containers

Storage: 50 °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

Minimum Coverage Rates (3/8" overlay):

	Epoxy	Aggregate
Course 1	1 gallon/40 ft ²	10 lbs./yd ²
Course 2	1 gallon/20 ft ²	14 lbs./yd ²

CURE TIME

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

	Average Temperature of Materials & Substrates (° F)					
Cure Temp	60-64	65-69	70-74	75-79	80-84	85+
Course 1	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr
Course 2	5-6 hr	5 hr	4 hr	3 hr	3 hr	3 hr

*Set times are averages. Site conditions will dictate actual cure response for sweeping of 1st & 2nd layers as well as open to traffic time.

INSTALLATION

Surface Preparation: Repair delamination, potholes and cracks with EP-PATCH. Clean surface by shot-blasting to remove all contaminants to ICRI level 5 minimum. Remove dust and debris by blowing off with oil-free compressed air.

Mixing:

Hand Mixing: Mix Component A with Component B 1:1 by volume with Jiffy Mixer or similar, and low-speed variable drill at 300 rpm for a minimum of 3 minutes. Mix only the quantity that may be used within the gel time.

Mechanical Mixing: Mix components using a positive displacement pump that is capable of heating, metering and dispensing polymer resin via a static mixer.

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Placement: Apply neat EP50-OVERLAY FAST by notched squeegee at the specified rate. Broadcast select aggregate to refusal. The aggregate should be angular grain or fractured Flint, Basalt or Bauxite having less than 0.2% moisture and free of dirt, clay, etc. The aggregate should have a minimum MOHS scale hardness of 7 unless otherwise approved. After initial cure of first course, remove excess aggregate. Do not open to traffic. Apply second course of epoxy and aggregate at specified rate. Remove excess aggregate. Allow to cure following the table herein. Open to traffic.

LIMITATIONS

- For professional use only
- Do not thin with solvents
- Minimum age of concrete must be 28 days before applying as an overlay, unless otherwise approved by E-Chem
- EP50-OVERLAY FAST is a vapor barrier after curing
- Substrate temperatures must be 50 °F and rising prior to installation and 50 °F must be maintained for a minimum of 8 hours post installation-see curing guidelines for proper cure
- Consult E-Chem representative when mixing or placing outside of the temperature recommendations

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 ENTIRE 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

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 manufacturers or seller's limitation of liability be waived or altered in any manner whatsoever. For additional information, please refer to the Terms and Conditions.

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PHYSICAL PROPERTIES^{1,2,3}

Property	Standard	Units	Values
Viscosity (75 °F)	ASTM C881	cP	1,500 - 2,000
Gel Time (75 °F)		Minutes	15 - 20
Shore D Hardness	ASTM D2240	Shore D	65 - 75
Absorption	ASTM D570	%	0.10
Bond Strength (14-day cure)	ASTM C882	psi	>2,500
Compressive Modulus (Neat)	ASTM D695		<130,000
Compressive Strength (3 hours w/sand)	ASTM C579		>4,000
Compressive Strength (24 hours w/sand)			>8,000
Tensile Strength (75 °F)	ASTM D638		>2,500
Tensile Elongation (75 °F)		%	40 - 60
Adhesion to Concrete	C1583/D7234 ACI 503R	psi	>450 (concrete failure)
Cure Rate (75 °F)	ASTM D1640	Hours	~ 2.0

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.