110 PumaLAC™

High Solids Novolac Epoxy Coating System

PRODUCT DESCRIPTION

110 PumaLAC is a two-component (2:1), high solids, novolac epoxy coating system engineered for exceptional chemical resistance. It may be installed as a stand-alone coating, a slurry binder, or a clear or pigmented topcoat system, and may be used with fiberglass reinforcement for additional impact resistance and mechanical strength.

110 PumaLAC provides broad-spectrum chemical protection against acids, alkalis, and solvents in aggressive industrial environments.

FEATURES & BENEFITS

- Up to 25 minutes working time
- Highly chemical and stain resistant
- Binder, slurry, and grout coat
- 2 hardeners (Standard and Fast)
- Clear, or field-tintable with universal colorants
- MicrobeBLOK™ antimicrobial
- Acceptable for USDA-inspected facilities

TYPICAL USES

- Commercial kitchens
- Chemical storage facilities
- Pharmaceutical plants
- Battery storage areas
- Metal plating lines
- Secondary containment
- Food and beverage processing

LIMITATIONS

- Best suited for application between 60°F and 90°F.
- Epoxy is light-sensitive and will amber over time; it requires a UV-stable topcoat.
- Some light colors may require multiple coats for hiding power. Slight batch color variations may occur.

PRELIMINARY FLOOR INSPECTIONS & SURFACE PREP

Check the concrete

The substrate must be structurally sound and free of curing membranes, sealers, or oils. Mechanically profile the concrete per ASTM D4259-83 (CSP 3–4). Contact PumaCRETE technical support for previously sealed floors.

Moisture and dew point

Moisture vapor emission must be below 6 lbs/1,000 sq ft/24 hrs (ASTM F1869) or <82% internal RH (ASTM F2170). Floor and material temperatures must be 55°F–90°F, with humidity <85%. **Substrate temperature must be at least 5°F above the dew point.**

PHYSICAL CHARACTERISTICS

Solids (by wt.)	98% ± 2% (mixed)
Mix Ratio (by vol.)	2 parts Resin : 1 part Hardener
Viscosity @ 70°F	600 cps
Pot Life / Working Time @ 70°F	S-Hardener: 25 minutes F-Hardener: 15 minutes
Cure Time, Tack-Free @ 70°F	S-Hardener: 10–12 hrs foot traffic F-Hardener: 4–5 hrs foot traffic; 18–24 hrs full service
Recoat Window	Maximum of 36 hours
VOC	Nil

COVERAGE RATE

A gallon of 110 PumaLAC covers **12–20 mils (80–133 sq ft/gal)** under standard application.

Body and topcoat thickness vary depending on substrate conditions and specification requirements.

PRODUCTS GUIDE

1. 110 PumaLAC Resin

A well-rounded, versatile 2:1 epoxy novolac used as a binder, slurry, or grout/topcoat. Formulated with optimal working viscosity for smooth application, even at lower ambient temperatures.

2. 110 PumaLAC S-Hardener

A versatile epoxy novolac hardener that balances extended working time with a 10-hour foot-traffic cure (at 70°F) when combined with 110 PumaLAC Resin.

3. 110 PumaLAC F-Hardener

An accelerated hardener formulated for rapid turnaround and fast recoat windows, providing a 4-hour foot-traffic cure (at 70°F).

JOINT GUIDELINES

Non-moving control/contraction joints can be treated with 110 PumaLAC thickened with PumaTHICKENER, or with PumaUrea HF flexible joint filler.

Coating applied over filled joints may crack if substrate movement occurs.

MIXING INSTRUCTIONS

Mix ratio: 2 parts Resin : 1 part Hardener by volume

Add 8–16 oz of 120-PumaCOLOR universal colorant per gallon when field pigmenting.

Procedure: Pre-mix colorant into the resin until homogeneous. Add the hardener to a clean mixing pail first, then add the resin, scraping the container walls. Mix thoroughly for 1–2 minutes using a low-speed drill with a Jiffy ES mixer blade. Do not mix more material than can be placed within pot life limits.

CARE, MAINTENANCE & REPAIR

Cure time for cleaning: Allow the floor coating to cure at least 3 days before mechanical scrubbing or cleaning equipment is used. Avoid gouging or dragging sharp objects. Plasticizer migration from rubber tires can stain light coatings; non-marking tires are recommended in industrial settings.

Repairs: Repair gouges, chips, or surface scratches immediately to prevent chemical penetration to the concrete substrate. Contact PumaCRETE for approved repair mortars.

APPLICATION EQUIPMENT

- PPE per SDS
- Jiffy mixer blade (ES model) and low-speed drill
- Clean mixing bucket/pail
- Shed-resistant roller cover (3/8" nap)
- Notched or flat rubber application squeegee

PACKAGING & COLORS

Resin	5 gal and 1 gal white pails
Hardener	5 gal and 1 gal black pails
Bulk	50 gal industrial drums
Colors	Refer to the PumaCRETE Color Guide

OPTIONAL ADDITIVES

- PumaTHICKENER (aerosil thickener)
- 120-PumaCOLOR universal colorants
- PumaBLOK (antimicrobial additive)
- PumaLAC Accelerator (on-site)

STORAGE & SHELF LIFE

Storage	Indoors, 60°F (16°C) to 90°F (32°C)
Shelf Life	One (1) year from date of manufacture, in unopened containers

TECHNICAL SUPPORT

For any application questions, please call PumaCRETE technical support at 857-226-8247.

PHYSICAL PROPERTY & MORTAR TEST DATA

Property	Test Method	Result
Hardness (Shore D)	ASTM D-2240	80–85 D
Compressive Strength	ASTM D-695	13,500 psi
Tensile Strength & Elongation	ASTM D-638	5,780 psi; 7.50% elongation
Adhesion to Concrete	ASTM D-7234	>400 psi (100% concrete substrate failure)
Impact Resistance / Water Absorption	ASTM D-2794 / D-570	>160 in-lbs / <0.1% water absorption
Flame Spread / Abrasion Resistance	ASTM E-684 / D-4060	Class 1 / 20 mg loss (CS-17 wheel, 1,000 g load, 1,000 cycles)
Coefficient of Friction	ASTM D-2047	Wet 0.7 · Dry 0.8 (smooth)
Mortar Compressive & Flexural Strength	ASTM C-579 / C-580	15,000 psi compressive / 4,000 psi flexural

SAFETY (SDS)

Please refer to the product SDS for complete safety and handling precautions prior to use. **Keep out of reach of children. For professional industrial use only.**

WARRANTY

Seller warrants that its goods, as described on the face hereof, are free from any defects in material or workmanship. Seller makes no other warranty, express or implied, and all implied warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Seller shall not be liable for prospective profits or special, indirect, or consequential damages. Seller's sole liability and buyer's exclusive remedy for breach of any warranty is expressly limited, at seller's option, to replacement at the original F.O.B. point or refund of the purchase price. Seller shall not be responsible for any claim resulting from failure to use the product in the manner in which it was intended and in accordance with the instructions provided for its use.