*"High Performance Industrial Flooring"*

# 107 PumaPOXY™

100% Solids, 3:1 Epoxy Coating System

## PRODUCT DESCRIPTION

**107 PumaPOXY** is a uniquely versatile 3:1 epoxy coating system that balances working and cure time. It is a clear, two-component, thermosetting, low-odor, 100% solids epoxy designed as a coating system for various conditions and substrates.

## FEATURES & BENEFITS

- Up to 30+ minute working time
- Hard cure — sanding-ready next day
- Lower-temperature cure
- Primer, binder, and grout coat
- 3 hardeners — Standard, Fast Setting, and Long Working Time (LWT)
- 2 resins — Standard and Cove
- 120-PumaCOLOR tint — 6 gal resin pails for in-field tinting
- MicrobeBLOK antimicrobial
- Can be applied to concrete with moisture vapor emission levels up to 6 lbs/1,000 sq ft/24 hrs, or 82% internal RH
- Meets USDA and FDA standards
- OSHA and ADA compliant
- Complies with EPA VOC regulations for AIM coatings

## TYPICAL USES

- Manufacturing
- Food processing
- Laboratories
- Garages
- Pharmaceutical plants
- Kennels
- Schools
- Hospitals
- Retail

## LIMITATIONS

- Best suited for application at temperatures between 45°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 adequate hiding power. Certain colors appear white when scratched.
- Slight batch-to-batch color variations may occur. When ordering to match a previous color, ask whether the same batch number or quality control number is still available.

## PHYSICAL CHARACTERISTICS

| | |
|---|---|
| **Solids (by wt.)** | 100% |
| **Mix Ratio (by vol.)** | 3 parts Resin : 1 part Hardener |
| **Viscosity @ 70°F** | 500 cps |
| **Pot Life @ 70°F** | 20 min (S-Hardener); 10 min (F-Hardener) |
| **Cure Time, Tack-Free @ 70°F** | LWT-Hardener: 18 hrs foot traffic<br>S-Hardener: 8–10 hrs foot traffic<br>F-Hardener: 4–5 hrs foot traffic; 12–18 hrs normal operation |
| **Working Time @ 70°F** | 15 min (S-Hardener); 15 min (F-Hardener) |
| **Recoat Window** | Maximum of 36 hours |
| **Coverage Rate** | 10 mils, 160 sq ft/US gal; can be applied at 6 mils, 267 sq ft/US gal |
| **VOC** | Nil |

## COVERAGE RATE

A gallon of 107 PumaPOXY covers at a standard spread rate of **6–20 mils, or 80–267 sq ft per gallon**.

*Primer, body, and topcoats vary in thickness depending on the condition of the substrate and the type of system.*

## PRELIMINARY FLOOR INSPECTIONS

### Check the concrete

Concrete must be structurally sound and free of curing membrane, paint, or other sealer. If you suspect the concrete has been previously sealed, call PumaCRETE technical support for further instructions.

### Check for moisture

Concrete must be dry before application of PumaCRETE floor coating materials, and concrete moisture testing must occur. Calcium chloride testing (ASTM F1869-11) or in-situ relative humidity testing (ASTM F2170-11) is recommended; test methods can be purchased at www.astm.org, or follow the manufacturer's instructions. Readings must be below 6 lbs/1,000 sq ft/24 hrs (ASTM F1869-11) or 82% internal relative humidity (ASTM F2170-11).

*Although testing is critical, it is not a guarantee against future problems — especially if there is no vapor barrier, the vapor barrier is not functioning properly, or you suspect concrete contamination from oils, chemical spills, or excessive salts.*

### Check the temperature and humidity

Floor and material temperatures should be between 55°F and 85°F. Humidity must be less than 95%. **Do not coat unless the floor temperature is more than five degrees above the dew point.**

## SURFACE PREPARATION

This product requires preparation in order to perform as expected. The substrate must be mechanically profiled (ASTM D4259-83), clean, sound, and dry.

## JOINT GUIDELINES

Depending on preference, joints may or may not be filled. If joints are filled, moving joints (i.e., contraction or control joints) can be treated with 115 PumaFLEX with PumaTHICKENER, or Sikaflex 2c for expansion joints.

*Coating applied over filled joints may crack if there is concrete movement.*

## MIXING INSTRUCTIONS

### Application equipment

- PPE and clothing per SDS
- Jiffy® mixer blade (ES model)
- Clean mixing container
- Low-speed / high-torque drill
- Shed-resistant roller cover, 3/8" nap
- Application squeegee

**Mix ratio: 3 parts Resin : 1 part Hardener by volume**

8–16 oz of PumaCOLOR colorant is recommended per gallon of material (see product label). When field pigmenting, mix it homogeneously into the resin before adding the hardener.

## COLORS & OPTIONS

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|---|---|
| **Colors** | See "Color Guide" for 120-PumaCOLOR tint |
| **Optional** | PumaTHICKENER (aerosil thickener); PumaCOLOR tint (factory tinting available); MicrobeBLOK (antimicrobial); PumaPOXY Accelerator (on-site accelerator) |

## PRODUCTS GUIDE

### 1. 107 PumaPOXY S Resin

A well-rounded, versatile 3:1 epoxy for use as a primer, body, self-level, or grout/topcoat. As a self-level system from 30–100 mils, combine with PumaFill SL Filler.

### 2. 107 PumaPOXY Hardener

A versatile epoxy hardener that balances longer working time with an 8-hour cure (70°F) when combined with 107 PumaPOXY resins.

### 3. 107 PumaPOXY F-Hardener

An accelerated hardener for use with either 107 PumaPOXY resin, designed for quicker turnaround and recoat with a 4-hour cure (70°F).

### 117 PumaCove/Patch Resin

A thickened resin with a paste consistency. With 107 PumaPOXY hardener, it may be used to fill non-moving cracks and small holes less than 1 inch in diameter, and as a grout coat over epoxy troweled mortars.

**Cove:** can be used as a vertical primer and as the binder resin for cove mix when mixed with 20/40 or 40/60 silica quartz aggregates.

## PACKAGING

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|---|---|
| **Resin** | 6 gal white pail; 1 gal metal pail |
| **Hardener** | 5 gal black pail; 1 gal black pail |

## PHYSICAL PROPERTIES

| Property | Test Method | Result |
|---|---|---|
| Hardness (Shore D) | ASTM D-2240 | 70–80 D |
| Compressive Strength | ASTM D-695 | 13,100 psi |
| Tensile Strength | ASTM D-638 | 5,780 psi |
| Tensile Elongation | ASTM D-638 | 7.50% |
| Adhesion to Concrete | ASTM D-7234 | >400 psi, substrate fails |
| Impact Resistance | ASTM D-2794 | >160 in/lb |
| Water Absorption | ASTM D-570 | <0.1% |
| Flame Spread / NFPA 101 (3 mils over cement board) | ASTM E-684 | Class 1 |
| Abrasion Resistance (CS-17 wheel, 1,000 g load, 1,000 cycles) | ASTM D-4060 | 30 mg loss |
| Coefficient of Friction (James Friction Tester) | ASTM D-2047 | Wet 0.7 · Dry 0.8 (smooth) |
| **Heat Resistance Limitation** | | |
| Thermal Cycling (5 min interval) | Hot oil (200°F) to ice water (25°F) | 20 cycles — no effect |
| Thermal Cycling (10 min interval) | Hot oil (200°F) to ice water (25°F) | 20 cycles — no effect |
| Continuous Heat | 1 hr 160°F hot oil submersion | No effects |
| **Other Tests: Mortar Mix** | | |
| Compressive Strength | ASTM C-579 | 15,000 psi |
| Tensile Strength | ASTM C-307 | 2,400 psi |
| Flexural Strength | ASTM C-580 | 4,000 psi |
| Flexural Modulus of Elasticity | ASTM C-580 | $1.0 \times 10^{6}$ |
| Thermal Coefficient of Linear Expansion | ASTM C-531 | $1.1 \times 10^{-5}$ in/in/°C |
| Water Absorption | ASTM C-413 | <0.1% |

## MIXING INSTRUCTIONS (CONTINUED)

When combining, add the hardener to the clean mixing container first, then add the resin (clear or pigmented), scraping out the container. Always pour into the center of the mixing container. Mix the components thoroughly for 1–2 minutes with a Jiffy ES-style mixing blade. Mix only as much material as can be applied without exceeding the pot life.

## STORAGE & SHELF LIFE

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|---|---|
| **Storage** | Indoors, 60°F (16°C) to 90°F (32°C) |
| **Shelf Life** | One (1) year from date of manufacture |

## TECHNICAL SUPPORT

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

## CARE & MAINTENANCE

### Cleaning guidelines

Allow the floor coating to cure at least 3 days before cleaning by mechanical means (e.g., sweeper, scrubber, disc machine).

### Care

Proper maintenance will increase the service life and help maintain the appearance of your new PumaCRETE floor coating system. This is considered a low-maintenance coating system; however, certain textures and service environments require specific procedures. See the PumaCRETE "Cleaning Guidelines" for more information.

### Caution

Avoid scratching or gouging the surface — all floor coatings will scratch if heavy or sharp objects are dragged across them. Do not drop heavy or pointed items on the floor, as this may cause chipping or concrete pop-outs where the substrate cap is weak.

Rubber tires can permanently stain the floor coating through plasticizer migration; in warehouse and industrial settings, non-marking tires are highly recommended. Rubber burns from quick stops and starts can heat the coating to its softening temperature, causing permanent marking.

### Repairs

Repair gouges, scratches, or chip-outs as soon as possible to prevent moisture or chemical contamination.

## DISPOSAL

Dispose of in accordance with federal, state, and local regulations.

## SAFETY (SDS)

Please see the Safety Data Sheet (SDS) for safety and precautions. Use product as directed. **Keep out of the reach of children.**

## 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. Any claim for breach of warranty shall be deemed waived unless buyer gives seller written notice of such claim within sixty (60) days after delivery and allows seller reasonable opportunity to investigate the claim and inspect the product.