



DESCRIPTION

Puma-Crete SLB® is a highly flowable, slurry & silica broadcasted urethane cement floor. This medium duty floor is available in textures from smooth to rough/anti-slip. It is water-based very low odor, easy-to clean, designed to provide excellent resistance to abrasion, chemical attack and other physical aggression. It is designed for manufacturing facilities including food & beverage processing. Features include resistance to medium duty traffic from forklifts and material handling equipment, chemicals and wet conditions.

COMPOSITION

Water dispersed polyurethane resin system combined with graded silica aggregates, and polymeric resin lock-coat/top coat.

APPEARANCE

Medium to high gloss finishes available. Surface is watertight and easy-to-clean. *Textures available include:* smooth, light, medium, or rough* *note: Rough texture requires scrub brushes/ high pressure water wash.*

Meets ADA Standard: Coefficient of Friction (.6)

DURABILITY

Resistant to impact, abrasion, and heavy loading from fork trucks, pallet jacks and carts, commonly found in industrial facilities. Withstands hot washdowns, a wide variety of industrial chemicals and the surface does not support the growth of bacteria.

WATER AND MOISTURE TOLERANCE

Handles up to 15 lbs of water vapor transmission and over 97% concrete internal RH.

THICKNESS

Typical 1/8 to 3/16 inch (3-4 mm)

SUBSTRATES

Concrete, structurally sound toppings including ceramic, quarry tile, brick, and polymer modified screeds such as Rapid Set (cement-all)..

FOOD SAFETY CERTIFICATION

Certified and warrantied to meet minimum standards for USDA, SQF, IFS, FSSC2200, and BRC inspections/standards.

APPLICATION CONDITIONS

60-85°F (16°-29°C) Best results are achieved at 70°F (21°C). For job site temperature below 60°F, or above 80°F, consult Puma-Crete® tech support for information on extending working time.

APPLICATION

Puma-Crete® SLB is a two coat system. Includes a self-leveling, cementitious urethane slurry (base coat), and a polymeric lock coat. The surface has an easy to clean, medium to high gloss, and attractive finish. Top Coat is a 2-component polymeric, high gloss coating. Apply using trowels or cam rake (#1 or #2 cams).

LOCK COAT / TopCoat

Puma-Crete® PC107: this polymeric top coat locks in the silica, provides enhanced gloss, abrasion and chemical resistance, along with an easy to clean, anti microbial finish.

Optional Puma-Crete® Polyspartic Topcoat: cures down to +20 deg F, and can be driven on with forklifts within a few hours.

CURE SCHEDULE (70 deg F)

12 hours foot traffic, 24 hrs full cure *

CHEMICAL RESISTANCE

Excellent resistances to organic and inorganic acids, alkalis, fuel

and hydraulic oils, aromatic and aliphatic solvents.

PACKAGING

Puma-Crete SLB® is manufactured in pre-measured, easy to use units.

BASE COAT / SLURRY 3-component unit (+ silica broadcast)

Coverage: 1/8 inch finished floor **spread rate:** 40 ft²/unit * (use #1 cam rake)
3/16 inch finished floor **spread rate:** 30 ft²/unit * (use #2 cam rake)

RESIN: 1 pre-measured container **HARDENER:** 1 pre-measured container

AGGREGATE 1 bag (25 lb) **Up to 3 qts of silica may be added per unit, for enhanced body and increased coverage, if desired.**

BROADCAST SILICA 40/60 mesh or 20/40 mesh * 50 lb bag

* 20/40 recommended for areas w/ oils, detergents/foams usage..

PC107 TOP COAT

Part A: 1 or 5 gal containers

Part B: 1 or 5 gal containers

Coverage: 110-150 ft²/unit *

* **note:** Coverages shall vary depending on application and contour of substrate. Condition materials to 70 deg F, prior to use, for best performance.

MAINTENANCE

Regular cleaning of the applied system is recommended in order to maintain slip resistant properties and cosmetics. Normal cleaning agents (such as Simple Green) w/ standard auto floor scrubber. *Note: brush or high pressure hose required for rough texture finish, if required.*

COLORS AVAILABLE

Standard colors are: Tile Red, Gray, Blue

Additional colors available; see Puma-Crete color chart.

TECHNICAL DATA

Compressive Strength	ASTM C579	8,820 psi
Thermal Distortion	Passing up to	270 dF
Therm. Coeff. of Therm. Expansion	ASTM C531	1.5x10e5
Density	ASTM C905	130 pcf
Water Absorption	MIL-PRF-3134	0.64%
Surface Hardness	85-90 Durometer "D" ASTM D2240	
Adhesion	100% failure in concrete ASTM D4541	400psi
Flammability-Critical Radiant Flux	ASTM E648	1.07 watts/sq cm
Flammability	ASTM D635	Self Extinguishing
Tensile strength:	ASTM C307	4,785 psi
Flexural strength:	ASTM C580	9,840 psi
Shear Strength	ASTM D732	4,965 psi
Abrasion resistance (method A)	ASTM C779	.020 in @ 60 min
Impact Strength	ASTM D4226	>160 in-lb
VOC	ASTM D3960	.083 lb/gal
Resistance to Fungi Growth	ASTM G21	Rating of 1, passes
Coefficient of Friction		> 0.60

HEALTH AND SAFETY

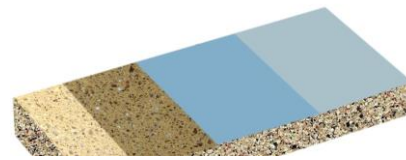
Water based and 0 gram VOC/Liter product system. Please read the safety data sheets, for further detailed information on safe handling and use of this product.

SHELF LIFE: 1 year from date of manufacture (un-opened).

CONDITIONS OF USAGE:

Installation of all products purchased must be by professional installers periodically published by PUMA-CRETE or otherwise approved by PUMA-CRETE in writing. Modification to any of PUMA-CRETE's products voids the warranty. The installer shall maintain a written contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PUMA-CRETE reserves the right of inspection of any installed product, installation and maintenance records and records of field conditions and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply for products or materials that have been paid for full. This writing constitutes the sole and only agreement of warranty relating to PUMA-CRETE products.

Technical Data Sheet



PRODUCT DESCRIPTION

PUMA-CRETE PC107 TopCoat is a two-component recoatable epoxy and binder resin. It may be used directly over primed substrates, or as a gloss seal coat over decorative slurry and mortar systems. PUMA-CRETE High Performance Epoxy is extremely hard wearing, chemical, impact and abrasion resistant.

ADVANTAGES

- Impact and abrasion resistant
- Durable, easy to clean
- Chemical resistant
- Suitable for use in dry or wet production facilities or warehouses.
- High Gloss
- *Texture may be added for non slip applications.
Available in a wide variety of colors.
- Long wearing for production areas with rubber wheeled lifts.
- Tint bases can be tinted to custom colors.

TYPICAL USES

PUMA-CRETE PC107 Top Coat/ Lock Coat should be used in areas where maintenance of a high performance, aesthetically appealing and chemical resistant epoxy system is required. PUMA-CRETE PC107 Performance TopCoat is suited for use in clean rooms, production rooms and light assembly areas.

LIMITATIONS

- Slab on grade requires vapor/moisture barrier.
- Substrate must be structurally sound, dry and free of bond inhibiting contaminants.
- During installation and initial cure cycle substrate and ambient air temperature must be at a minimum of 50°F (10°C). Substrate temperature must be at least 5°F (3°C) above the dew point (for lower temperature installation contact the Technical Service Department).
- Maximum dry surface temperature not to exceed 140°F (71°C).
- Strictly adhere to published coverage rates.
- Apply at only 10-14 mils maximum per coat.

SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical. Read and follow the "Instructions for Concrete Surface Preparation" for complete details.

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	Clear with Pigment packs for wide range of colors
Volume Solids:	98% ± 2%, mixed
Weight Solids:	98% ± 2%, mixed
Mix Ratio:	2Resin:1Hardener
VOC (EPA Method 24):	<100 g/L; .83 lbs/gal (as applied)

Spreading Rate per coat:

	Minimum	Maximum
Wet mils:	6.0	20.0
Coverage sq ft/gal:	80	233

PRODUCT CHARACTERISTICS (CONT'D)

Drying Schedule @ 10.0 mils (250 microns) wet:

	@ 55°F (13°C)	@ 72°F(22°C)	@ 95°F(35°C)
Standard Hardener:		50% RH	
To touch:	16-24 hours	6-12 hours	4-8 hours
To recoat:			
minimum	24 hours	8 hours	6 hours
maximum	48 hours	24 hours	24 hours
Foot traffic:	48 hours	24 hours	18 hours
Heavy traffic:	96 hours	72 hours	60 hours
Full cure:	7 days	7 days	7 days

Fast Cure Hardener:

To touch:	3-4 hours
To recoat:	
minimum	6
maximum	12
Foot traffic:	10-12 hours
Heavy traffic:	24 hours
Full cure:	7 days

If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.

Pot Life (Standard) gallon mass	60 minutes	40 minutes	20 minutes
Pot Life (Fast Cure) gallon mass		25 minutes	

Shelf Life:	Resin	18 months, unopened
	Hardener (Standard):	12 months, unopened
	Hardener (Fast Cure):	12 months, unopened
	Store indoors at 40°F (4.5°C) to 100°F (38°C)	

PERFORMANCE CHARACTERISTICS

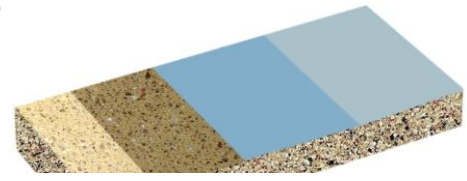
Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles	76 mg loss
Adhesion	ACI 503R	300 psi, concrete failure
Flammability		Self-extinguishing over concrete
Flexural Strength	ASTM D 790	~12,400 psi
Hardness, Shore D	ASTM D 2240	77
Impact Resistance	MIL-D-3134J	Direct: 160 in-lb Reverse: 20 in-lb
*Surface Burning	ASTME84/ NFPA 255	Flame Spread Index 20; Smoke Development Index 90
Tensile Strength	ASTM D 638	3527.4 psi

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PUMA-CRETE® PC112 ESD

High Performance Industrial Flooring

rev. 11/15/21



Technical Datasheet

DESCRIPTION

PC-112ESD is very low odor, static dissipative, high performance urethane coating. PC-112ESD features a non-yellowing, satin finish, and is available in a variety of colors and textures. The PC-112ESD system typically consists of a 2-coat system of PC103 epoxy primer, and PC-112ESD topcoat. For the ultimate in durability, PC112ESD is applied over a base layer/topping of PC301SLB, and PC107 lock-coat.

USES:

PC-112ESD can be installed in several different environments where the damaging effects of electrostatic discharge (ESD) cannot be tolerated. Primary industries that use ESD flooring include Electronic Assembly, Data processing, Military/ Aerospace, Hazardous Industries (dust or explosion hazards), and AGV areas. It is applied over our insulative epoxy primer, and optional intermediate coat.

ADVANTAGES:

- Extremely low, non-offensive odor.
- Consistent resistance to ground without the need of a ground plane primer utilizing conductive particulates and polymers
- BODY VOLTAGE GENERATION (BVG) below 15 volts with conductive footwear

ELECTRICAL PROPERTIES:

- Can be used to meet the recommendations set forth in ANSI-S20.20-2014.
- *Resistance:* This product is capable of exhibiting surface resistance values in the static dissipative and conductive ranges in accordance to values defined in test method EOS/ESD Association ESD STM S7.1-2005.
- *Reparability:* The lack of dependence on conductive fiber and ground plane primers allows this system to be repaired without sacrificing electrical performance.
- Dissipates a 5000-volt charge to 0 volts in less than 0.1 seconds
- Maintains ESD properties throughout the thickness of the applied coating and not dependent humidity for proper conductivity (unlike carbon fiber systems) To assure proper contact to floor surface, persons in area protected by ESD floor coating must wear approved quality ESD footwear.

DURABILITY

Resistant to abrasion and other physical aggression pallet jacks and carts commonly found in testing and assembly facilities.

COMPOSITION

Non-toxic static dissipating, polyurethane resin system combined with glass bead aggregates. Complies with VOC regulations for industrial maintenance coatings in the OTC and CA.

CURED PROPERTIES*: Properties	Test Method	Results
Abrasion Resistance Tabor CS-17, mg loss/1000 cycles/1000g mass	ASTM D4060	25 mg
Coefficient of Friction- COF James Test	ASTM D2047	0.55 0.65(w/GLOSS GRIP)
Tensile Strength	ASTM D2370	6160 PSI
Elongation	ASTM D2370	8%
Impact	ASTM D2794	140 in.lbs Direct & Reverse
Hardness (Pencil)	ASTM D3363	2H
Dry Film Thickness	at 4 mils WFT	3 mils

MATERIAL PROPERTIES*: Properties	Test Method	Results
Flash Point	ASTM D3278	187 °F (86°C)
Volume Solids (mixed)	ASTM D2369	75%
Mixed Viscosity	ASTM D2196	300-500 cPs
Dry Time	ASTM D5895	Tack Free 8 hr. Dry 16-24 hr. Full Cure 7-14 days
VOC-Volatile Organic Compound	ASTM D3960	< 250 g/l Pigmented

APPEARANCE

SHEEN: Satin finish.

Slip Resistant: Meets ADA Standard - Coefficient of Friction (.6)
Surface is easy to clean.

APPLICATION

PUMA-CRETE® PC-112ESD is installed by certified applicators throughout the U.S.A.

SURFACE PREPARATION

To be assured of maximum adhesion and properties from any Puma-Crete® resin products the correct surface is essential. Please refer to technical data sheet "Surface Preparation".

STORAGE, MIXING & APPLICATION TEMPERATURE

The storage, mixing and application conditions can affect the quality of the finish produced. Optimum storage and application temperature are 70°F.

CURE SCHEDULE (70 deg F)

24 hours (foot traffic), 36 hrs Full cure (heavy traffic)

MAINTENANCE

Regular cleaning of the applied system is recommended in order to maintain slip resistant properties and cosmetics. Normal cleaning agents (such as Simple Green) w/ auto floor scrubber.

CHEMICAL RESISTANCE

Excellent resistances to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.

COLORS AVAILABLE

Standard colors: Std color is Medium Gray (also available in 7 additional colors—see Puma-Crete color chart.

WARRANTY

5 years (refer to PUMA-CRETE® ESD warranty terms and conditions)

CONDITIONS OF USAGE:

Installation of all products purchased must be by professional installers periodically published by PUMA-CRETE or otherwise approved by PUMA-CRETE in writing. Modification to any of PUMA-CRETE's products voids the warranty. The installer shall maintain a written contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PUMA-CRETE reserves the right of inspection of any installed product, installation and maintenance records and records of field conditions and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply for products or materials that have been paid for in full.