"High Performance Industrial Flooring"

301-SLB PumaCRETE®

Heavy-Duty Urethane Industrial Flooring

PRODUCT DESCRIPTION

This is semi-flowable 1/4-inch cementitious urethane floor with an optional silica broadcast and topcoat. This heavy-duty floor is available in textures varying from smooth to rough, and has excellent resistance to chemicals, thermal shock, and cool wet conditions in food/beverage processing and manufacturing facilities.

Advantages include durability against mechanical abrasion and other physical aggression, including powered lifts and typical material-handling equipment. It is specified for renovation or new construction.

This system provides enhanced hiding power, due to 1/4 inch thickness.

COMPOSITION

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

APPEARANCE

Medium- to high-gloss finishes are available. The surface is watertight and easy to clean. Available textures: smooth, light, medium, or rough.

Meets ADA standard: coefficient of friction (0.6).

Rough texture requires scrub brushes or high-pressure water wash.

DURABILITY

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

WATER & MOISTURE TOLERANCE

Handles up to 25 lbs of water vapor transmission and 99% concrete internal RH.

FOOD SAFETY CERTIFICATION

Certified and warranted to meet minimum standards for USDA, SQF, IFS, FSSC 22000, and BRC inspections/standards.

SUBSTRATES

Concrete, existing well bonded resinous flooring quarry tile, brick and structurally sound substrates.

PRODUCT CHARACTERISTICS

Finish	Medium to high gloss; smooth, light, medium, or rough texture
Typical Thickness	1/4 to 3/8 inch
Application Conditions	60–85°F (16–29°C); best results at 70°F (21°C)
Colors	See the PumaCRETE GIS color chart at www.PumaCRETE.net; custom colors and color matching available
Shelf Life	One (1) year from date of manufacture (unopened)

For job-site temperatures below 60°F or above 80°F, consult PumaCRETE technical support on extending working time.

CURE SCHEDULE @ 70°F

Foot traffic	8–12 hours
Powered lifts	24 hours
Chemical resistance	7 days (108 PumaSPARTIC lock coat: 24 hours)

CHEMICAL RESISTANCE

Excellent splash/spill resistance to commonly used organic and inorganic acids, alkalis, sugars, hydraulic oils, and aromatic and aliphatic solvents.

Some chemicals are "stainers" that may leave permanent marking. For concentrated acids and solvents under immersion conditions, contact PumaCRETE technical support for specific recommendations.

TECHNICAL DATA

Property	Method	Result
Compressive Strength	ASTM C579	8,820 psi

SURFACE PREPARATION

Ensure surfaces are clean and dry.

Remove any loose, unsound materials using grinders such as diamond grinders and scarifiers/planers.

Shotblasting or other mechanical surface preparation is recommended for most applications.

ICRI Concrete surface profile of CSP-4-CSP6 is appropriate in most cases.

Refer to PumaCRETE's Substrate Preparation Guidelines for more information.

APPLICATION

301-SLB PumaCRETE includes a cementitious urethane slurry (base coat) and an optional polymeric lock coat. The lock coat is a two-component polymeric satin or high-gloss coating.

Apply base coat using a #3 cam rake or pin rake, and flat steel trowels. Use a spike (pin) roller to help level the finish. Optional silica broadcast into the wet slurry.

Top coat is squeegee applied, and then rolled to level.

OPTIONAL LOCK COAT (TOPCOAT)

104 PumaPOXY MB	Polymeric topcoat w/ optional 46 grit aluminum oxide texture.
107 PumaPOXY	Polymeric topcoat that locks in the quartz and provides enhanced gloss, abrasion and chemical resistance, with an easy-to-clean, antimicrobial finish.
108 PumaSPARTIC	Cures as low as +20°F and can be driven on with forklifts within a few hours.
110 PumaLAC	Novolac epoxy providing enhanced chemical resistance to concentrated acids and solvents.

TECHNICAL DATA (CONTINUED)

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	0.020 in @ 60 min
Impact Strength	ASTM D4226	>160 in-lb
Adhesion	ASTM D4541	400 psi, 100% failure in concrete
Hardness (Durometer D)	ASTM D2240	85–90
Density	ASTM C905	130 pcf
Water Absorption	MIL-PRF-3134	0.64%
Coeff. of Thermal Expansion	ASTM C531	1.5×10^{-5}
Thermal Distortion	—	Passing up to 270°F
Flammability — Critical Radiant Flux	ASTM E648	1.07 watts/sq cm
Flammability	ASTM D635	Self-extinguishing
Resistance to Fungi Growth	ASTM G21	Rating of 1, passes
VOC	ASTM D3960	0.083 lb/gal
Coefficient of Friction	—	> 0.60

MAINTENANCE

Regular cleaning of the applied system is recommended to maintain slip resistance and appearance. See the PumaCRETE Cleaning Guide.

TECHNICAL SUPPORT

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

PACKAGING

301-SLB PumaCRETE is manufactured in pre-measured, easy-to-use units.

Base coat / slurry (3-component unit + silica broadcast)

Resin	1 pre-measured container, 301 Resin
Hardener	1 pre-measured container, 301 Hardener
Aggregate	1 bag SLB aggregate (39 lb)
Broadcast silica	40/60 or 20/40 mesh, 50 lb bag (20/40 recommended for areas with oils, detergents, or foams)
Coverage	1/4 inch floor: 25–30 sq ft per unit (#3 cam rake and hand trowel)

Finished floor thickness includes the 40/60 mesh broadcast, unless otherwise stated. Rates decrease over rough surfaces; always check your coverage rate during installation.

Optional lock coat (107, 108, 110)

Part A	1 or 5 gal containers
Part B	1 or 5 gal containers
Coverage	110–150 sq ft per unit

Coverage varies with application and substrate contour. Condition materials to 70°F before use for best performance.

HEALTH & SAFETY

Water-based, 0 g/L VOC product system. Please read the Safety Data Sheets (SDS) for detailed information on safe handling and use of this product.

CONDITIONS OF USAGE

Installation of all products purchased must be by professional installers periodically published by PumaCRETE Corp. or otherwise approved by PumaCRETE Corp. in writing. Modification to any of PumaCRETE'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). PumaCRETE Corp. 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 to products or materials that have been paid for in full. This writing constitutes the sole and only agreement of warranty relating to PumaCRETE products.