"High Performance Industrial Flooring"

112 PumaESD™

Static Dissipative Polyurethane ESD Coating

PRODUCT DESCRIPTION

112 PumaESD is a 3rd-generation, low-odor, static dissipative, high-performance urethane coating. It features a non-yellowing satin finish and is available in a variety of colors and textures.

This coating is typically used as part of the 200 or 201 PumaESD system (2 to 4 coats) and is recommended for new concrete (or concrete in "new-like" condition). For rough, damaged concrete and the ultimate in durability, 112 PumaESD is applied over a 1/16–1/8 inch base layer/topping of 301-SL; this system is named 301 PumaESD.

USES

112 PumaESD can be installed in many environments where the damaging effects of electrostatic discharge (ESD) cannot be tolerated. Industries and areas that use PumaESD flooring include electronic assembly, data centers, energetics areas, munitions, AGV and robotic areas, warehouses, clean rooms, and more.

ADVANTAGES

- Low, non-offensive odor
- Consistent resistance to ground without the need for a ground plane primer, utilizing conductive particulates and polymers

ELECTRICAL RESISTANCE PROPERTIES

Dissipative	10^5 to 3.5 × 10^7 ohms
Conductive	75,000–300,000 ohms (40,000 ohms @ 110 V); ** requires 105c PumaPOXY primer coat*

Meets all recommendations set forth in:

- ANSI/ESD S20.20
- Static dissipative and conductive ranges in accordance with values defined in test method EOS/ESD Association ESD STM S7.1-2005 and ANSI/ESD STM 97.1 and STM 97.2
- Body Voltage Generation (BVG) <15 volts with conductive footwear
- Dissipates a 5,000-volt charge to 0 volts in less than 0.1 seconds
- DoD 4145.26M requirements ** requires 105c primer*
- NFPA 99 compliant

To assure proper contact with the floor surface, persons in the area protected by the ESD floor coating must wear approved, quality ESD footwear.

DURABILITY

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

COMPOSITION

Aliphatic polyester polyurethane resin system.

APPEARANCE

Satin finish; the surface is easy to clean.

Slip resistant: meets ADA standard — coefficient of friction (0.6).

STORAGE, MIXING & APPLICATION TEMPERATURE

Optimum storage and application temperature is 70°F.

CURE SCHEDULE (70°F)

Foot traffic	24 hours
Full cure (heavy traffic)	48 hours

MAINTENANCE

Regular cleaning of the applied system is recommended to maintain slip-resistant properties and cosmetics. Use normal cleaning agents (such as Simple Green) with an auto floor scrubber.

CHEMICAL RESISTANCE

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

COLORS AVAILABLE

Standard colors: Light Gray, Medium Gray, Dark Gray (also available in 6 additional colors — see the PumaCRETE color chart). Custom color matching is available.

REPAIRABILITY

The lack of dependence on conductive fiber and ground plane primers allows this system to be repaired without sacrificing electrical performance.

MATERIAL & CURED PROPERTIES

Property	Test Method	Result
Material Properties		
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 hrs; dry 16–24 hrs; full cure 7–14 days
VOC	ASTM D3960	<250 g/L, pigmented
Cured Properties		
Abrasion Resistance, Taber (CS-17, mg loss/1,000 cycles/1,000 g mass)	ASTM D4060	25 mg
Coefficient of Friction (James Test)	ASTM D2047	0.55; 0.65 (with Gloss Grip)
Tensile Strength	ASTM D2370	6,160 psi
Elongation	ASTM D2370	8%
Impact	ASTM D2794	140 in-lbs direct and reverse
Hardness (Pencil)	ASTM D3363	2H
Dry Film Thickness	At 4 mils WFT	3 mils

APPLICATION

112 PumaESD is installed by certified applicators throughout the U.S.A.

SURFACE PREPARATION

To be assured of maximum adhesion and properties from any PumaCRETE® resin product, the correct surface is essential. Please refer to the technical data sheet “Surface Preparation.”

WARRANTY

5 years (refer to the PumaCRETE® ESD warranty terms and conditions).

CONDITIONS OF USAGE

Installation of all products purchased must be by professional installers periodically published by PumaCRETE or otherwise approved by PumaCRETE 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 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.