



## Technical Datasheet

**DESCRIPTION**

**301-c AGV PumaESD®** is a heavy duty, anti-static, highly flowable, urethane resurfacer. This 3 or 4 coat system is suitable for new or damaged concrete surfaces, and has a satin, anti-slip finish. There are no objectionable odors during installation. This easy-to clean floor is provides excellent resistance to abrasion and other physical aggression in manufacturing and warehouse facilities with AGV (automatic guided vehicles) or AMR (autonomous mobile robots). It handles high levels of concrete vapor emissions.

**COMPOSITION**

**Primer:** reqrd for new concrete or bare concrete (slab on grade). **Base:** 301-SL (typical 1/9-3/16" for surface in typical condition).

**Mid-Coat:** 104-PumaPOXY MB polymeric epoxy.

**Top Coat:** 112-d AGV PumaESD high performance urethane with integral PumaWEAR anti-wear additive.

**APPEARANCE**

Satin finish. Surface is watertight and easy-to-clean. Textures available include smooth or light texture. Meets ADA Standard: Coefficient of Friction (.6)

**DURABILITY**

Resistant to abrasion from fork trucks, pallet jacks, AGV and AMR vehicles/equipment.

**WATER AND MOISTURE TOLERANCE (MVR)**

1/8-inch. Handles up to 15 lbs MVR.

1/4-inch Handles up to 25 lbs MVR and 97% concrete internal RH.

**THICKNESS**

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

**SUBSTRATES**

Concrete, structurally sound toppings, and high strength polymer modified screeds such as Rapid Set (cement-all).

**ELECTRICAL RANGE AND CERTIFICATIONS** (static dissipative):  
10e6 - 10 e9 ohms

For custom resistance ranges, please contact PumaCRETE technical support.

**APPLICATION CONDITIONS**

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

**APPLICATION**

**Typically**, 301-PumaESD PumaCRETE® is a three coat system. (For new concrete, the concrete must be primed and sealed to prevent off gassing/pinholes, using 401-TF primer. Base coat includes a self-leveling, cementitious urethane slurry (base coat), and a polymeric intermediate coat, and an easy to clean, satin top coat.

Apply 301-SL using trowels, v-notch squeegee or cam rake. Intermediate coat of 104-PumaPOXY MB is a squeegee/roll application. 112-c PumaESD is a roller-applied top coat.

**GROUNDING**

System may be easily grounded, every 1000 sf, by means of conductive copper ground tape, applied before or after final coat.

**PACKAGING**

Manufactured in pre-measured, easy to use units.

**BASE COAT/SLURRY:****301-resin, 301-hardener, 301-SL aggregate (25 lb bag)**

Up to 1 qt of quartz silica may be added per unit, for enhanced body and increased coverage, if desired.

**COVERAGE:**

**PRIMER** (new concrete only) 401 TF  
squeegee/roll applied 175-200 sf/unit

**BASE COAT**

301-SL 1/8 inch 50=60 ft<sup>2</sup>/unit (use #2 cam or 1/2" notch squeegee)  
301-SL 3/16 inch 25-30 ft<sup>2</sup>/unit (use #3 cam rake)

**MID-COAT** 104-PumaPOXY MB Part A/B: 225 sf/gal

**TOP COAT** 112-d AGV PumaESD 3-component pre-measured unit with PumaWEAR abasion additive. 1000 sf/unit

**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.

\* Use brush or high pressure hose for rough texture finishes..

**COLORS AVAILABLE**

7 standard Colors (see PumaCRETE ESD 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                           | .010 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.