

PPC STATIC E300 NT

PRODUCT TECHNICAL DATA SHEET

NANOWISE TECHNOLOGY. PPC STATIC E300 NT is a two-component, high-performance epoxy floor coating formulated with electrostatic conductive properties when used with ESD-compliant footwear, helping to maintain controlled static conditions in sensitive environments. The system provides reliable static control for personnel, ESD-compatible wheeled equipment, and chairs by ensuring effective equipment grounding and preventing the buildup of electrostatic charges. In addition to its conductive performance, this coating offers: Excellent light reflectivity, outstanding resistance to abrasion and scratches, easy maintenance and cleaning and strong resistance to a wide range of chemicals. PPC Static E300 NT, when applied over PPC Static Primer, is engineered to meet the ANSI S20.20–2014 Product Qualification and Performance Verification requirements. Its surface resistance remains consistent and is not affected by relative humidity. The system complies with most Department of Defense (DoD) and military standards. When Premera FP1 Fusion Primer is included, minimal surface preparation is required on sound and stable surfaces, no shotblasting, no grinding or scarifying is required.

WHERE TO USE

- Electronics manufacturing and assembly areas
- Military, aerospace, and aircraft hangars
- Facilities with dust or explosion hazards
- Cleanroom environments
- Pharmaceutical production and processing facilities
- Data centers and server rooms
- Control rooms and command centers
- Medical device manufacturing
- Semiconductor fabrication plants
- Laboratories and testing facilities
- Telecommunication facilities
- Automotive electronics production
- Battery manufacturing and charging areas
- Printing facilities with flammable inks or solvents
- Packaging lines handling powders or fine particulates

ADVANTAGES

- **NANOWISE TECHNOLOGY™** ensures superior ESD performance
- Bright, reflective surface that is easy to clean
- Excellent resistance to a wide range of industrial chemicals
- **12-month shelf life** with no settling or shipping restrictions
- Seamless, monolithic, and non-porous finish
- Greater durability than ESD tiles or sheet goods — no joints to fail
- Low-maintenance system requiring no additional topical ESD treatments

PACKAGING & COLORS

Packaging: 1.5 gallon (5.7 L), 3 gallon (11.35 L) and 15 gallon (56.8 L)
Color: Adobe, Sand, Buff, Light Gray, Sterling, Concrete Gray, Blue, Black, Slate.

MIX RATIO

PPC Static E300 NT mix ratio is 2A:1B, meaning two-part A (resin) to one part B (hardener) by volume. Mix full kits only.

SHELF LIFE AND STORAGE

12 months from date of manufacture, in original unopened container. Store away from heat sources between 50F and 85F (10C – 30C).

RESTRICTIONS

- Not intended for exterior use or areas exposed to direct sunlight and weather.
- Do not apply over substrates with excessive moisture vapor emission beyond specified limits.
- Not suitable for vertical or sloped surfaces where the material cannot self-level.
- Avoid application in areas subject to standing water or continuous immersion.
- Do not install over weak, unsound, or contaminated substrates (oil, grease, curing compounds, etc.).
- Use only with approved cleaners that leave no residue; harsh chemicals may impair conductivity.
- System performance may be compromised if contaminated by adhesives, paint, or other non-conductive residues.

PHYSICAL/CHEMICAL CHARACTERISTICS

Impact Resistance120/180 inch/lbs

Taber Abrasion 1000 g load/1000.....<35 mg loss cycles/CS17 Wheel

Adhesion to Concrete ASTM D7234.....>350 PSI/Concrete Failure

Mixing Ratio by VolumeMix Full Kits Only

VOC 31 g/l

Cure Times (77°F/25°C)

Light Traffic	24 Hours
Full Cure	7 Days

Electrical Properties

Electrical Resistance per ANSI S7.1-13 2.5×10^4 to

1.0×10^6 Ohms

Body Voltage Generation ANSI ESD 97.1 <15 Volts²

Meets ANSI S20.20 – 2014 Product Qualification & Compliance Verification²
Certification available on request

¹ When applied with Static Primer Conductive Primer.

² With compliant footwear or shoe grounders, properly worn and in good working condition

OVERVIEW OF INSTALLATION STEPS

Surface Preparation: No grinding or surface profile is needed when Premera FP1 Fusion Primer is used, otherwise, concrete must be fully cured for a minimum of **30 days** and be clean, dry, and structurally sound. The surface should be prepared by **shot blasting or diamond grinding** to achieve at least an **ICRI CSP-3 profile**. For detailed guidance, refer to the *ICRI Technical Guidelines: Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair*.

When diamond grinding, use **20–30 grit diamonds** and thoroughly vacuum the floor to remove all concrete dust. Residual dust left in the pores of the concrete can compromise adhesion.

Previously coated surfaces must be mechanically cleaned and abraded to create a clean, gloss-free, and open texture before application.

Priming:

All prepared concrete must be **primed** before applying PPC Static E300 NT. Use PPC Static Primer to seal the substrate, ensuring it is fully cured before applying subsequent coats.

For **existing ESD surfaces**, apply an **epoxy isolation layer** prior to the installation of **PPC Static E300 NT** to ensure proper adhesion and performance.

Mixing: Bring all materials to ambient temperature prior to use. Thoroughly premix **Part A** to re-incorporate any settled material, scraping the sides and bottom of the container to ensure uniform blending. Add **Part B** into the **Part A** container, then mix with a slow-speed drill mixer for at least **three (3) minutes**, or until a homogeneous blend is achieved. Apply the material to the floor **immediately after mixing**.

Application:

Apply PPC Static E300 NT in a single coat at approximately 16 mils thickness (coverage of about 100 sq. ft. per mixed gallon / 2.45 m² per liter). The coating can also be applied at different thicknesses depending on the desired finish, without affecting final electrical resistance.

- At less than 14 mils, the surface will develop a light orange peel texture.
- At greater than 18 mils, the surface will cure to a smooth finish.

Use a notched squeegee followed by a 3/8-inch, high-quality, solvent-resistant roller cover. Apply at a uniform thickness for consistent appearance.

Back Rolling:

- Use the largest roller practical for the application area.
- Keep small sections to minimize tie-in time.
- Ensure adequate manpower and equipment are available to maintain efficient application.
- Back-roll evenly, finishing with one final pass at a 90° angle to the direction of application.

Cleaning:

PPC STATIC E300 NT conductive and static-dissipative flooring systems require proper cleaning procedures to maintain maximum conductivity.

- Sweep as needed and dust mop regularly using a high-quality microfiber mop head. Frequent dust mopping extends floor life and helps ensure the lowest possible resistance between the floor surface and ESD footwear, wheels, and casters.
- Use only cleaning agents that rinse completely without leaving a residue. Mechanical scrubbers may be used with pads no more aggressive than 3M White Super Polish Pad 4100 (or equivalent).
- Do not use wax, acrylic finishes, polishes, or other film-forming products. A properly maintained PPC STATIC E300 NT floor will not require additional ESD treatments.
- Avoid processes that may leave non-conductive residues, such as adhesives or paint.

HEALTH AND SAFETY

Use only with adequate ventilation. Appropriate cartridge- type respirator must be used during application in confined areas. Avoid contact with skin; wear protective gloves. User must read and understand Safety Data Sheet before using.

LIMITATIONS:

- **Not for vertical or steeply sloped surfaces:** PPC Static E300 NT will not adhere to vertical or sharply inclined areas. For such applications, consult **PPC Technical Service**.
- **Electrical performance:** Surface resistance, resistance to ground, and body-voltage control depend on proper surface cleanliness and the condition of ESD shoe grounders and footwear.

- **Spark resistance:** PPC Static systems applied directly to concrete are **not inherently spark-proof** if struck by metal, unless applied over a spark-proof substrate. Contact **PPC Technical Service** for specification of spark-proof systems.
- **Exterior use:** Exposure to outdoor conditions may result in chalking, discoloration, and fading.
- **Environmental conditions:** Prior to application, ensure ambient temperature and humidity are at least **5°F above the dew point**.
- **Do not thin:** Adding solvents or thinners is unnecessary and will **void the manufacturer's warranty**.
- **Heating precautions:** Use of kerosene or propane forced-air heating during application can cause discoloration and finish defects.
- Conduct a concrete moisture test following ASTM F2170 – 19. If moisture levels exceed 85%, apply the Premera HLT moisture mitigation system as specified in the official technical data sheet. For additional guidance, contact PPC technical support.

CONDUCTIVE PRIMER

PPC STATIC E300 NT provides a static-dissipative surface without requiring a conductive ground plane, achieving a surface resistance of approximately 1.0×10^7 ohms point-to-point. When PPC Static Primer is applied, the resulting floor surface typically measures $\sim 1.0 \times 10^5$ ohms, with resistance values of less than 1.0×10^6 ohms.

PPC Static Primer should be applied at 5–6 mils WFT. For complete application details, refer to the product data sheet. *Based on ANSI S7.1, when installed according to published technical data.*

GROUNDING

PPC STATIC E300 NT conductive and static-dissipative flooring systems are inherently self-grounding, and in most applications, no additional grounding is required. In typical conditions, incidental contact between the coating system and grounded structural elements is sufficient.

For critical environments and hazardous applications—such as those requiring ultra-low body voltage generation or involving flammable liquids, powders, gases, or explosives—dedicated positive grounding points must be installed.

Positive grounding can be established using several methods, including copper foil tape (such as 3M 3313 or equivalent), concealed points beneath vinyl or cove base, or masonry fasteners. Refer to PPC construction details for guidance.

GROUNDING, Cont.

In critical or hazardous environments, install one (1) positive grounding point for every 1,000 square feet of continuous floor area. Each grounding point must be tested to confirm electrical continuity with the building's structural or electrical utility ground system. Surface-to-ground (RTG) resistance readings are generally about one megohm lower than surface-to-surface (RTT) values.

LIMITED WARRANTY

PPC warrants its products to be free of manufacturing defects and that they will meet PPC current published physical properties. PPC warrants that its products, when properly installed by a state licensed contractor according to PPC guide specifications and product data sheets over a sound, properly prepared substrate, will not fail for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PPC of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PPC shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PPC shall not be responsible for use of this product in a manner to infringe on any patent held by others.

In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PPC reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PPC makes no claim that these tests or any other tests, accurately represent all environments. For further information please contact us at the following email address: orders@premierprotectivecoatings.com or visiting www.premierprotectivecoatings.com

DISPOSAL

Any surplus material, including both Part A and Part B components, should be combined and allowed to cure. Upon curing, the product can be disposed of without any restrictive conditions. Uncured materials should be securely stored in an appropriate sealed container and disposed of in strict adherence to the applicable provincial, state, municipal, and federal regulations.

CAUTION

ALWAYS KEEP OUT OF THE REACH OF CHILDREN
KEEP FROM FREEZING CONDITIONS INTENDED FOR
INDUSTRIAL USE ONLY