STAT-REZ® ESD NANO 375

PRODUCT DATA SHEET

PRODUCT DESCRIPTION

APF STAT-REZ ESD NANO 375 is a 100% solids two-component, high-performance, epoxy floor coating, utilizing NANO WISE® Technology, designed to impart electrostatic conductive qualities to floor surfaces in conjunction with ESD compliant footwear. The system is designed to provide static control properties for personnel, ESD compliant wheeled equipment and chairs, which limits the ability of personnel to build up electrostatic charges on their person by providing effective equipotential grounding. This coating features excellent light reflection, exceptional abrasion and scratch resistance, ease of cleaning, and excellent resistance to a broad range of chemicals.

APF STAT-REZ ESD NANO 375 is formulated to conform to ANSI S20.20–2021 Product Qualification and Performance Verification requirements when used with APF STAT-REZ 175 ESD NANO Conductive Primer. Surface resistance is not affected by relative humidity.

Meets most DOD and Military standards. Contact APF Technical Service for complete compliance information.

USES

- Electronics Manufacturing and Assembly
- Military/ Aerospace/ Aircraft Hangars
- Hazardous Industries (dust or explosion hazards)
- Clean Rooms
- Pharmaceutical Facilities

ADVANTAGES

- NANO WISE Technology provides exceptional ESD performance
- Highly reflective, easily cleaned surface
- Resistant to common industrial chemicals
- Full 12 month shelf-life, no settling or shipping limitations
- Monolithic, seamless, non-porous
- More durable than ESD tile or sheet goods, no joints to fail.
- Low Maintenance, no topical ESD treatments required.

COLORS

Black	Buff	Light Gray	Slate
Concrete Gray	Sterling	Blue	Medium Gray

TECHNICAL DATA

Solid Content by Volume	100%
Impact Resistance	120/180 inch/lbs
Taber Abrasion 1000 g load/1000 cycles/CS17 Wheel	<35 mg loss
Adhesion to Concrete ASTM D7234	>350 PSI/Concrete Failure
Mixing Ratio by Volume	Mix Full Kits Only
VOC[1]	<50 g/l
Cure Times (77ºF/25ºC)	
Working Time	~ 20-25 Minutes
Dry To Touch	~12 Hours
Recoat	~12-24 Hours
Light Traffic	24 Hours
Full Cure	7 Days
Electrical Properties	
Electrical Resistance per ANSI S7.1 – 13[2]	2.5×10^4 to 1.0×10^6 Ohms
Body Voltage Generation ANSI ESD 97.1	<15 Volts[2]

Meets ANSI S20.20 – 2021 Product Qualification & Performance Verification[3]

[1] Meets the VOC requirements for SCAQMD Rule 1113 for floor coatings
[2] When applied with Stat-Rez 175 ESD NANO Conductive Primer
[3] With compliant footwear or shoe grounders, properly worn and in good working condition

Higher temperature and lower humidity will shorten cure time. Lower temperatures and higher humidity will increase cure time.

If 24 hour recoat window exceeded, substrate recoat preparation required.

PACKAGING

Supplied in complete 1.5 gallon (5.7L), 3.0 gallon (11.35L) & 15 gallons (56.8L) total by volume kits, consisting of A & B components. Product is factory pigmented. Use only as complete mixed unit, do not break down units.

COVERAGE

Coverage Rate: 80-100 sqft/gallon (16-20 mils WFT)

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For more information, please visit us at apfepoxy.com

CONCRETE MOISTURE

It is the applicators responsibility to test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve system in accordance with the published system data sheet. Consult APF Technical Service for further information.

GROUNDING

Prior to beginning application, confirm that the grounding points have been placed in accordance with the project specifications.

SURFACE PREPARATION

Concrete must be cured for at least 30 days be clean, structurally sound, and free of wax, loose coatings or curing compounds. Concrete should be properly prepared to achieve a surface Minimum Texture of ICRI/CSP 2-3. Refer to ICRI technical guidelines 310-330 Selecting and specifying concrete surface preparation for sealer, coatings, polymer overlays, and concrete repair. Vacuum the prepared concrete surface to remove all dust. Acid etching is not recommended and will void manufacturers' warranty.

PRIMING (Non-Conductive):

Prepared concrete must be primed before application of APF STAT-REZ ESD NANO 375. Prime prepared concrete with APF EPOXY 400. Substrate surface must be completely sealed and cured before application of subsequent coats. Apply APF EPOXY 400 in accordance with the product data sheet.

Existing ESD surfaces should have an isolation layer of epoxy primer applied prior to application of APF STAT-REZ ESD NANO 375.

PRIMING (Conductive):

APF STAT-REZ ESD NANO 375 will create a static-dissipative surface without the use of a conductive ground plane. Prime prepared concrete with APF Epoxy 400 in accordance with the product data sheet. Surface resistance* will be ~1.0 x 10E7 ohms point-to-point without a conductive ground plane. Application of APF STAT-REZ ESD NANO 175 Conductive Primer will produce a floor surface with resistance values of <1.0x10E6 ohms, typically ~1.0x10E5 ohms.

Refer to the APF STAT-REZ ESD NANO 175 Conductive Primer product data sheet for complete application instructions.

*Per ANSI S7.1, when installed in accordance with the published technical data.

MIXING

Thoroughly pre-mix part A before adding the part B. Combine components and mix for 2-3 minutes using slow speed drill, scraping the bottom and sides of the mixing container. It is important to NOT whip air into the material while mixing. Material cannot be properly mixed by hand. Apply material immediately after complete mixing.

APPLICATION

Apply STAT-REZ ESD NANO 375 at a rate of 80-100 sqft/gallon (16-20 mils WFT). Apply with notched squeegee and a quality solvent resistant 3/8-inch nap roller cover. At a uniform thickness to ensure consistent appearance.

An applicator wearing spiked shoes will back roll the wet material using a quality solvent resistant 3/8-inch nap roller cover to distribute the material uniformly. **The material must be thoroughly rolled twice to achieve optimal substrate wetting {using North-South, East-West Method.}** Keep application areas as small as possible, to prevent long tie-in times. Application under 16 mils will produce an "orange peel" type texture.

CLEANING

APF STAT-REZ ESD NANO 375 conductive and static-dissipative flooring systems require specific cleaning procedures to ensure that the flooring surface maintains the highest level of conductivity.

Sweep as necessary and dust mop with a quality micro-fiber type mop head. Frequent dust mopping will extend the life of the floor and permit the lowest resistance between the floor surface and ESD footwear, wheels, and casters.

Use only cleaning agents that leave no residue after rinsing. Mechanical scrubbers may be used with pads no more aggressive than 3M brand White Super Polish Pad 4100, or equal.

Never use wax, acrylic finishes, polishes, or other film-forming products. A properly cleaned APF STAT-REZ ESD NANO 375 floor should never require additional ESD treatments. Beware of processes that may impart a non-conductive residue on the floor, such as adhesives and paint.

LIMITATIONS

- Not for vertical or deeply sloped surfaces.
- Electrical performance (surface resistance, resistance to ground, body-voltage generation) is a function of surface cleanliness, and the condition of ESD shoe grounders and footwear.
- Before applying, measure and ensure that the ambient temperature is at least 5°F above the dew point..
- Do not thin this product. Addition of thinners is not necessary and will void Manufacturer's warranty.
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

SHELF LIFE

Part A: 12 months at 50-85°F {10-30°C}
Part B: 12 months at 50-85°F {10-30°C}

*When kept at recommended storage conditions and in original unopened containers. DO NOT ALLOW TO FREEZE. Frozen material is unusable and must be properly disposed of.

HANDLING, SAFETY & STORAGE

- Avoid contact with skin; wear protective gloves. Application personnel must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com.
- Store away from heat sources. Store between 50°F and 85°F (10°C-30°C). DO NOT FREEZE. Frozen material is unusable and must be properly disposed of.

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