

PRODUCT DESCRIPTION

APF STAT-REZ® NANO 375 is a two-component, high-performance, epoxy floor coating, utilizing **NANOwise 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 NANO 375 is formulated to conform to ANSI S20.20–2014 Product Qualification and Performance Verification requirements when used with **APF STATREZ 175 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

Typical Uses

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

ADVANTAGES

- **NANOwise 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

Adobe	Buff	Light Gray	Slate
Concrete Gray	Sterling	Blue	Black
Medium Gray			

TECHNICAL DATA

Impact Resistance	120/180 inch/lbs
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Taber Abrasion 1000 g load/1000 cycles/CS17 Wheel	<35 mg loss
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Adhesion to Concrete ASTM D7234	>350 PSI/Concrete Failure
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Mixing Ratio by Volume	Mix Full Kits Only
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VOC	31 g/l
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Cure Times (77°F/25°C)

Light Traffic	24 Hours
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Full Cure	7 Days
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Electrical Properties

Electrical Resistance per ANSI S7.1 – 13 ¹	2.5 x 10 ⁴ to 1.0 x 10 ⁶ Ohms
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Body Voltage Generation ANSI ESD 97.1	<15 Volts ²
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Meets ANSI S20.20 – 2014 Product Qualification & Performance Verification²

¹ When applied with StatRez 175 NANO Conductive Primer

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

PACKAGING

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

SURFACE PREPARATION

Concrete must be cured 30 days and be clean, dry, and structurally sound. Surface must be shot blasted or diamond ground to achieve a minimum ICRI profile of CSP-3. Consult ICRI Technical Guidelines Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair for complete information. If the surface is diamond ground, use 20-30 grit diamonds and vacuum the floor to completely remove any concrete dust. Excessive dust in the pores of the concrete will compromise adhesion. Previously coated surfaces must be mechanically cleaned and abraded prior to application to achieve a clean, gloss-free and open texture.

CONCRETE MOISTURE

Test for concrete moisture in accordance with ASTM F2170 – 19. If moisture is indicated to be in excess of 85%, apply **APF Vapor-Solve®** system in accordance with the published technical data sheet. Consult APF Technical Service for further information.

PRIMING

Prepared concrete must be primed before application of **APF STAT-REZ NANO 375**. Prime prepared concrete with **APF EPOXY 400**. Substrate surface must be completely sealed and cured before application of subsequent coats.

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

MIXING

Condition all materials to ambient temperature before starting. Premix A component completely to consolidate any settled product. Scrape sides and bottom of container to ensure that all constituents are completely blended. Add B Component to the A component container and mix with slow speed mixer for a minimum of three [3] minutes and until completely blended. Apply product to floor immediately after mixing.

APPLICATION

Apply **APF STAT-REZ NANO 375** in one coat, approximately 16 mils (100 sq. feet per mixed gallon/2.45 sq. meters per liter).

APF STAT-REZ NANO 375 may be applied at other thicknesses depending on the type of finish desired, without effecting the final electrical resistance. Application under 14 mils will produce an 'orange peel' type texture. At applications greater than 18 mils, the material will produce a smooth finish.

Apply with notched squeegee and 3/8-inch quality solvent-resistant roller cover. Apply at a uniform thickness to ensure consistent appearance. Back-Rolling: Use the largest roller practical for the size of the application. Keep application areas as small as possible, to prevent long tie-in times. Ensure there are enough resources to manage the application area efficiently. Back roll the material to evenly distribute. Make one final pass with roller at 90° to application.

SHELF LIFE

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

HANDLING & 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. APF Safety Data Sheets are available at www.apfepoxy.com

LIMITATIONS

- Not for vertical or deeply sloped surfaces. Material will not hang on vertical or deeply sloped surfaces. For these types of applications, consult APF Technical Service.
- 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.
- **APF STAT-REZ** systems applied direct to concrete are not intrinsically spark-proof (struck by metal) unless applied to a spark-proof substrate. Consult APF Technical Service for specification spark-proof systems.
- Exterior applications will exhibit chalking, discoloration and fading.
- Prior to application, measure and confirm that ambient temperature and humidity conditions are at least 5°F over 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.

CONDUCTIVE PRIMER

APF STAT-REZ NANO 375 will create a static-dissipative surface without the use of a conductive ground plane. Surface resistance* will be $\sim 1.0 \times 10^7$ ohms point-to-point without a conductive ground plane. Application of **APF STAT-REZ NANO 175 Conductive Primer** will produce a floor surface with resistance values of $< 1.0 \times 10^6$, typically $\sim 1.0 \times 10^5$ ohms.

APF STAT-REZ NANO 175 Conductive Primer is applied at 5 - 6 mils WFT. Refer to the **APF STAT-REZ NANO 175 Conductive Primer** product data sheet for complete application instructions.

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

GROUNDING

APF STAT-REZ NANO 375 conductive and static-dissipative flooring systems are naturally self-grounding, and for most applications, no additional grounding is needed. Casual contact of the coating system with grounded structural elements in most cases is adequate. For critical processes and hazardous applications such as very low body voltage generation requirements and flammable liquids, powders, gases, & explosives, positive ground points are required.

Positive grounding may be achieved by several methods. Copper foil tape (3M 3313, or similar) may be used. Invisible grounding points are possible under vinyl or formed cove base. Positive grounding points may be created using masonry fasteners. See APF construction detail.

GROUNDING, Cont.

For critical and hazardous environments, grounding points should be placed at the rate of one [1] positive grounding point per 1,000 square feet of contiguous floor area.

All ground points should be tested for electrical continuity to the buildings structural or electrical utility ground system. Surface-to-Ground (rtg) readings are typically approximately one megohm lower than surface-to-surface (rtt) values.

CLEANING

APF STAT-REZ 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 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.

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STANDARD WARRANTY STATEMENT

ICP BUILDING SOLUTIONS GROUP, the owner of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defect. No warranty shall be in effect until ICP Building Solutions Group Terms and Conditions of Sales are met, including payment and cooperative promotional considerations. ICP Building Solutions Group warrants that the covered product is free of defect and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is installed within its published shelf life, in strict conformance with specifications, and/or written project-specific installation guidance from authorized representation. ICP Building Solutions Group warrants only when product is handled, stored, mixed and applied in accordance with published recommendations. It is purchaser responsibility to initiate any claim against this warranty within a reasonable time. If determined by ICP that the product does not meet this warranty, the liability of ICP Building Solutions Group shall be limited to refund of the purchase price or provision of replacement product, neither needing to exceed the affected area as determined by a person authorized to perform technical representation for ICP Building Solutions Group. To obtain a replacement or refund the customer must provide written notice containing full details of the non-conformity suspected. The purchaser, owner or their representative shall notify ICP Building Solutions Group, in writing, within five (5) working days concerning any potential defect, or as needed before conditions deteriorate and increase repair costs. ICP Building Solutions Group reserves the right to inspect the non-conforming material prior to replacement. ICP Building Solutions Group may in its discretion refund the purchase price received by ICP Building Solutions Group in lieu of replacing the material. Except for the expressed warranty stated above, there are no other warranties, expressed or implied, including without limitation, any implied warranty of merchantability or fitness for purpose. ICP Building Solutions Group's obligation shall not extend beyond the obligations expressly undertaken above and ICP Building Solutions Group shall have no liability or responsibility to purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages. No customer, distributor, or representative of ICP Building Solutions Group is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of ICP Building Solutions.