

## PRODUCT DESCRIPTION

APF STAT-REZ<sup>®</sup> NANO 375 is a 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 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

- **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

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 <sup>1</sup>	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 <sup>2</sup>	2.5 x 10 <sup>4</sup> to 1.0 x 10 <sup>6</sup> Ohms
Body Voltage Generation ANSI ESD 97.1	<15 Volts <sup>2</sup>

Meets ANSI S20.20 – 2014 Product Qualification & Performance Verification<sup>3</sup>

<sup>1</sup> Meets the VOC requirements for SCAQMD Rule 1113 for floor coatings

<sup>2</sup> When applied with StatRez 175 NANO Conductive Primer

<sup>3</sup> 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<sup>®</sup>** 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 20 mils (80 sq. feet per mixed gallon).

**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](http://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.

APF STATREZ NANO 375 PDS 01.04.24

## STANDARD WARRANTY STATEMENT

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours 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 us.