

FloroPoxy ESD Electrostatic Dissipative Epoxy

Product Description: FloroPoxy ESD is a 100% solids, solvent-free, four-component epoxy system designed to furnish electrostatic dissipative properties while providing excellent protection against harmful fluids. It can provide an ESD surface over a thin film system or a heavy build system and cures to a glossy finish

A variety of colors are available upon request. Contact your Florock representative for information.

Typical Uses, Applications: Ideal for locations requiring flooring with reliable ESD control and excellent chemical resistance, such as:

- Aerospace and aviation hangars
- Semi-conductor and electronics assembly
- Data centers and data processing facilities
- Plastics manufacturing, processing
- Web-fed converting and packaging
- Healthcare and hospitals
- Photographic and graphic arts
- Any facility with operation-wide ESD protocols

Product Advantages:

- Furnishes conductive properties in accordance with the latest ESD Association guidelines and in accordance with EOS and ANSI/ESD specifications.
- Easy to clean and sanitize, seamless
- Outstanding resistance to many chemicals
- Provides consistent readings
- 100% Solids epoxy, solvent free
- USDA, FDA, EPA, OSHA and ADA compliant
- Can contribute to LEED Green Building Credits
- Tintable with Florock Colorants*

** Adding colorant to FloroPoxy ESD results in darker colors than those seen on the standard color chart, due to the coating's darker resin base. Please contact your Florock Representative for best color options.*

Packaging:

FloroPoxy ESD—Premeasured 3.45 Gallon Kit, consisting of resin, hardener, conductive component and a strip of grounding tape.
Florock Colorant—Add 1 pint Florock Colorant per 3.45 gallon kit to produce a 3.575 gallon blended batch. Colorant purchased separately.

Blended Liquid Physical Properties FloroPoxy ESD		
Property	Test Method	Results
% Solids by Weight/Volume	ASTM D-2697	100%
Viscosity	ASTM D-1200	1,350 cps
SETA Flash, min.	ASTM D-3278	>200 ° F
VOC	EPA Method 24	0 gpl
Blended Components – Application Data		
Mix Ratio	The premeasured FloroPoxy ESD base resin kit has 3 components. To each kit, add 1 pint of Florock Colorant, purchased separately.	
Pot Life*	18 minutes	
Curing Time at 70° F @ 50% RH		
Set to Touch	4-6 hours	
Foot Traffic	24 hours	
Full Cure	7 days	
Floor & Air Temp. Limitations	55° F - 90° F	
Recommended Spread Rate	477 SF/kit	
Dry Mills per Coat	12 mils/coat	
Recommended Clean Up Solvent	Xylene	

** Pot Life will be shorter with warmer slab, material temperatures.*

Storage: All containers should be stored at 40°F to 95°F, be kept tightly sealed and out of direct sunlight.

Coverage: FloroPoxy ESD Epoxy, complete with colorant, shall be applied at 477 SF/per kit.

Surface Preparation: New concrete must have a 28 day cure, and preferably a broom swept finish, prior to coating. In the case of older concrete flooring, remove all surface oils, paint, dust and debris. Prior to coating, make sure the surface is clean, passes the MVT test and the water drop test, and that all surface defects have been repaired. Refer to the Florock "Preparation of Concrete" datasheet for more information on preparation and MVT before proceeding.

Note: FloroPoxy should not be applied when floor temperature is above 90°F or below 55°F, or when within 5°F of the dew point.

FloroPoxyESD Epoxy: In the basic system, 1 coat of FloroPoxy ESD Epoxy is applied at 12 mils over FloroPoxy 4700 in appropriate color. If a mid-coat is needed, apply FloroPoxy 4805 or 4900 in appropriate color over primer in sufficient thickness to restore profile.

Important: FloroPoxy should not be applied when floor temperature is above 90°F, below 55°F, or when within 5°F of the dew point.

Installation Over Smooth, Bare Concrete:

1. Primer: Once surface preparation is complete, apply FloroPoxy 4700 in appropriate color. In a clean, dry container blend 3 parts by volume of Resin (Part A) with 1 part Activator (Part B). Mix thoroughly for 3 to 5 minutes, using a low speed mechanical mixer. Transfer the mixture from the batch container to a transport container, remix and pour entire mix from the transport container onto floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a flat squeegee, apply at desired thickness and backroll with a 3/8" nap roller.

Note: Do not sand, screen, or abrade the primer coat. Consult your representative concerning grounding tape before proceeding.

Note: The cure time will vary with conditions. Allow a minimum of 4 hours and a maximum of 24 hours before moving on to next step.

2. Optional Midcoat: When the primer has cured, and before 24 hours elapses, apply the FloroPoxy 4805 or 4900 in appropriate color. In a clean, dry container, blend appropriate parts of resin, activator and colorant. Mix thoroughly for 3 to 5 minutes using a low speed mechanical mixer. Transfer the mixture from the batch container to a transport container, remix and pour entire mix from the transport container onto floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a flat squeegee, apply at desired thickness and backroll with a 3/8" nap roller.

Note: The cure time will vary with conditions. For FloroPoxy 4805 allow a minimum of 8 hours and a maximum of 48 hours before moving on to next step. For FloroPoxy 4900 allow a minimum of 8 hours and maximum of 24 hours.

Note: Consult your Representative concerning grounding tabs before proceeding.

FloroPoxy ESD Topcoat Cured Physical Properties		
Property	Test Method	Results
Point-to-Point Resistance	EOS/ESD 7.1	1.0 – 35.00 Mega Ohms
Point-to-Ground Resistance	EOS/ESD 7.1	1.0 – 35.00 Mega Ohms
Body Voltage Generation	ESD STM 97.2	<15 volts
Static Decay	MIL-STD-3010 4046	0.01 seconds
Gloss 60 Degree	ASTM E-97	80
Coefficient of Friction	ASTM D-2047	0.55 smooth 0.65 w/ beads
Adhesion to Concrete	ASTM D-4541	>400 psi Concrete fails
Flexibility	ASTM D 522	0.25 inch, passes test
Compressive Strength	ASTM C-579	11,200 psi
Tensile Strength	ASTM D-2370	6,000 psi
Impact Resistance	ASTM D-2794	80 in-lbs, direct & reverse
Hardness, Shore D	ASTM D-2240	80
Tensile Elongation	A ASTM 2370	5%
Abrasion Resistance CS-17 Wheel, 1,000 gm load, 1,000 cycles	ASTM D-4060	75 mg
Water Absorption	ASTM C-413	0.2%
Indentation	MIL-D-3134	Passes

Important: Grounding tabs must be in place prior to installing the topcoat.

3. Topcoat - FloroPoxy ESD Epoxy: In a clean, dry container, blend 2 containers of Part C & 1 container of Part B together for 2-3 minutes using a Jiffy mixer blade (this combination will become a thick paste). Allow mixture to rest for 5-10 minutes. Remix Part C and Part B solution, add 2 containers of Part A & 1 pint Florock Colorant. Mix thoroughly for 3 minutes using a low speed mechanical mixer. Pour entire mixture onto the floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a flat squeegee, apply at 477 SF per kit and backroll with a 3/8" nap roller. **DO NOT SPRAY APPLY THIS MATERIAL**

Note: Up to 1 quart of Xylene may be added to this kit to allow product to flow better. Coverage will remain at 477 SF per kit.

Allow coating to cure for a minimum of 24 hours before opening floor to foot traffic and 48 hours before allowing equipment to be moved back in. Allow a full seven days cure for complete chemical resistance.

Fire Lanes and Traffic Lines: After the final coat has cured for 24 hours, the fire lanes, traffic lines, etc., may be installed as specified. Suitable masking tape will be placed on each side of the proposed lines to give a straight edge. Line marking may be achieved by using clear FloroThane MC or MC/HT with colorant or by using Florock FloroMark line marking kits. Remove the tape approximately one hour after application; the area may be opened to light traffic 10 to 12 hours after application.

Maintenance: Sweep away dust and debris with a broom. Clean on a regular basis with a surfactant type, mild detergent. Florock floors never need to be waxed.

Please read Safety Data Sheets before using product.

DISCLAIMER:

All statements and recommendations above are based on experience we believe to be reliable. The use or application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any warranty, expressed or implied, as to results or hazard from its use. The suitability, risk and liability of a product for an intended use shall be solely up to the User.

Chemical Resistance	
Reagent	Spot Test Results
Isopropanol	1
Bleach	1
MEK	4
Ammonia	1
Sodium Hydroxide 50%	1
Phosphoric Acid 10%	1
Nitric Acid 10%	1
Sodium Chloride 20%	1
Citric Acid 10%	1
Sulfuric Acid 10%	1
Sulfuric Acid 25%	1
Nitric Acid 10%	1
Hydrochloric Acid 10%	1
Acetic Acid 10%	2
Sugar Solution 10%	1
Lactic Acid 10%	1
Mineral Spirits	1
Tincture of Iodine	1, S
AFFF	1
Water	1

Based on a 1 day spot test. Coating cured 2 weeks prior to testing. Spot Test IAW ASTM D1308, Pencil Hardness Test IAW ASTM D3363

Rating Scale:

- 1 - Excellent. No change in pencil hardness
- 2 - Good. 1-2 units change in pencil hardness
- 3 - Fair. 3 units change in pencil hardness
- 4 - Poor. 4 or more units change in pencil hardness
- S - Stains