

FloroPoxy CON Conductive Epoxy

Product Description: FloroPoxy SL Conductive epoxy is a 100% solids, solvent-free system designed to be conductive and dissipate a 5000 volt charge to zero in less than 0.01 seconds. This product maintains conductive performance over wear life of the coating. It provides a conductive surface over a thin mil system or a heavy build system.

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

Typical Uses: Floors requiring conductive control and excellent chemical resistance are:

- Aircraft Hangars
- Electronics Manufacturers
- Data processing
- Hazardous Industries (dust or explosive environments)
- Photographic, graphic arts

Product Advantages:

- Furnishes conductive properties in accordance with the latest ESD Association guidelines and in accordance with EOS and ANSI/ESD specifications.
- Superior Resistance to many harmful chemicals
- Consistent readings
- 100% Solids Epoxy system, solvent free

Packaging: 3.65 Gallon Kit consisting of resin, hardener and conductive component. Add 1 quart of 100% Solids Colorant per 3.65 gallon kit to produce a 3.9 gallon blended batch. Colorant is purchased separately.

Storage: Store at 40° to 95°F in tightly sealed containers and out of direct sunlight.

Blended Liquid Physical Properties Conductive Epoxy		
Property	Test Method	Results
% Solids by Weight/Volume	ASTM D-2697	100%
Viscosity	ASTM D-1200	2,000 cps
SETA Flash, min.	ASTM D-3278	>200 ° F
VOC gpl	EPA Method 24	0 gpl
Blended Components – Application Data		
Mix Ratio	3-Component kit / inseparable Add 1 quart of Florock 100% Solids Colorant to each kit (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	518 SF/kit	
Dry Mills per Coat	12 mils/coat	
Recommended Clean Up Solvent	Xylene	

Coverage: FloroPoxy Conductive Epoxy, complete with colorant, shall be applied at 518 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.

FloroPoxy Conductive Epoxy: In the basic system, 1 coat of FloroPoxy Conductive Epoxy is applied @ 12 mils over FloroPoxy SL 4700 in appropriate color. If a mid-coat is needed, apply FloroPoxy SL 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 System 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 SL 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 System 4805 allow a minimum of 8 hours and a maximum of 48 hours before moving on to next step. For System 4900 allow a minimum of 8 hours and maximum of 24 hours.

Chemical Resistance	
Reagent	Spot Test Results
Isoproponal	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

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

3. Topcoat FloroPoxy Conductive Epoxy:

Pour the 2 containers of Part A into a clean, dry mixing container, slowly add the 3 containers of Part C and blend 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 A & Part C solution, then add Part B & 1 quart colorant. Mix thoroughly for 3 minutes using a low speed mechanical mixer. Pour entire mix on to the floor immediately. Retaining mixture in the bucket will shorten the pot life. Using a flat

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squeegee, apply at 518 SF per kit and backroll with a 3/8" nap, high quality, mohair type 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 for the kit will remain at 518 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.

1. 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 and colorant or by using 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.

FloroPoxy Conductive Topcoat Cured Physical Properties		
Property	Test Method	Results
Point to Point Resistance	EOS/Conductive 7.1	25,000-1,000,000 Ohms
Point to Ground Resistance	EOS/Conductive 7.1	25,000-1,000,000 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 with glass beads
Adhesion to Concrete	ASTM D-4541	>400 psi Concrete fails
Flexibility	ASTM D 522	1/4" 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 and reverse
Shore 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

DISCLAIMER:

All statements and recommendations above are based on experience we believe to be reliable. The use of 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.