

PPG FLOORING™ 422 ESD Waterborne Ground Plane Epoxy

DESCRIPTION

Two-component, Ground Plane Epoxy - Designed to Create Electrostatically Conductive Systems

PRINCIPAL CHARACTERISTICS

- Electrostatic Coating Designed For Conductive Coating Systems
- Good abrasion and impact resistance
- Good chemical resistance
- Suitable for areas with heavy traffic
- Easy cleaning
- TYPICAL USES:
- Electronic manufacturing facilities
- Factory and warehouse floors
- Computer and server rooms
- Pharmaceutical manufacturing and hospital operating rooms
- Industrial and commercial warehouses

COLOR AND GLOSS LEVEL

- Black

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Mass density	8.9 lb/US gal (1.1 kg/l)
Volume solids	41 ± 3%
VOC (Supplied)	max. 0.4 lb/US gal (approx. 50 g/l)
Recommended dry film thickness	3.0 - 5.0 mils (75 - 126 µm) depending on system
Theoretical spreading rate	164 ft²/US gal for 4.0 mils (4.0 m²/l for 100 µm)
Shelf life	Ground Plane Resin: at least 18 months when stored cool and dry Ground Plane Hardener: at least 24 months when stored cool and dry

Note:

- Refer to Application Guide for additional information



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Concrete

- NEW CONCRETE: May be installed as early as 7 days after pour. The concrete must have achieved a minimum of 3,000 psi (20.7 MPa) compressive strength prior to surface preparation and application.
- Concrete must be sound, dry, free from laitance and any contamination
- Surface profile shall be CSP 2-3 or greater, meeting ICRI standard guideline #03732 for coating concrete, producing a profile equal to 80-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- Prior to application of product, a coat of PPG NOVAGUARD® 5090 is recommended to minimize the number of voids in the concrete substrate
- NOTE: New concrete may experience early curing movement, shrinkage or cracking while continuing to cure during the first 28 days. If this occurs after coating application, these defects will be reflected through to the final coating
- Concrete surfaces must be primed with PPG Flooring™ 912 LV Primer before applying product.

SYSTEM SPECIFICATION

Chemical Resistances

- Motor Oil
- Brake & Hydraulic fluid
- 50% sodium hydroxide
- Gasoline
- Toluene and xylene
- Acetone
- Ammonium Hydroxide
- 10% Sulfuric Acid
- 10% Hydrochloric Acid
- Ethyl & Butyl Alcohol
- Ethyl & Butyl Acetate

Note:

- Chemical Resistance data is an attribute of a full coating system as referenced in application instructions

INSTRUCTIONS FOR USE

Mixing ratio by volume: Part A to Part B 3:1

- Mix Part A and Part B separately to ensure uniformity. Scrape sides and bottoms of containers
- Pour all of the contents of the Part B container into the Part A container. Mix together for 5 minutes until homogeneous.
- Mix Part A and Part B together using a low speed Jiffy-type mixer

Note:

- Do not thin with solvents.

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Application

- Conductive System: PPG FLR 912LV Primer, PPG FLR 422 Ground Plane, PPG FLR 422 Top Coat - Including Copper Tape
- Apply by brush, roller, notched trowel or squeegee
- The use of a brush is only recommended for touch-ups
- Ensure good ventilation during application and curing

Notes:

- Consult application guide for additional information
- Contact Technical Services to discuss application options

Cleaning procedure

- All application equipment must be cleaned immediately after use

ADDITIONAL DATA

Resistivity

- Ground Plane & Top Coat: 1×10^5 - 1×10^6 ohms
- Top Coat only: 1×10^6 - 1×10^8 ohms

Spreading rate and film thickness - 422 Ground Plane	
DFT	Theoretical spreading rate
3.0 mils (75 µm)	219.2 ft ² /US gal (5.4 m ² /l)
5.0 mils (125 µm)	131.5 ft ² /US gal (3.2 m ² /l)



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Overcoating interval				
Overcoating with...	Interval	59°F (15°C)	77°F (25°C)	95°F (35°C)
PPG FLR 422 ESD Ground Plane over approved primer/ sealer	Minimum	8 hours	4 hours	2 hours
	Maximum	60 days	30 days	15 days
PPG FLR 422 ESD Ground Plane over itself	Minimum	6 hours	3 hours	1.5 hours
	Maximum	14 days	7 days	4 days
PPG FLR 422 ESD Top Coat over PPG FLR 422 ESD Ground Plane	Minimum	24 hours	12 hours	6 hours
	Maximum	60 days	30 days	15 days
PPG FLR 422 ESD Top Coat over itself	Minimum	24 hours	16 hours	8 hours
	Maximum	14 days	7 days	4 days

Curing time for Ground Plane				
Substrate temperature	Dry to touch	Tack free time	Dry hard	Full cure
59°F (15°C)	4 hours	8 hours	12 hours	14 days
77°F (25°C)	2 hours	4 hours	6 hours	7 days
95°F (35°C)	1 hour	2 hours	3 hours	4 days

Pot life of Ground Plane	
Mixed product temperature	Pot life
59°F (15°C)	60 minutes
77°F (25°C)	45 minutes
95°F (35°C)	30 minutes

SAFETY PRECAUTIONS

- Read all label and Safety Data Sheet (SDS) information prior to use

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.



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WARRANTY

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AVAILABILITY OF PACKAGING

Packaging

- 4-Gallon kits

