#### DESCRIPTION

Two-component, 100% solids epoxy system (ground plane & top coat) designed to create conductive or dissipative systems

## **PRINCIPAL CHARACTERISTICS**

- Electrostatic coating designed for static dissipative and conductive flooring systems
- Good abrasion and impact resistance
- Excellent color and gloss retention
- Good chemical resistance
- Good flexibility
- 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

## **COLOR AND GLOSS LEVEL**

- Gray Base, Dark Gray Base
- High gloss

#### BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Тwo
Volume solids	Ground Plane: 41 ± 2% Top Coat: 100 ± 2%
VOC (Supplied)	Ground Plane: max. 0.4 lb/US gal (approx. 50 g/l) Top Coat: max. 0.4 lb/US gal (approx. 50 g/l)
Recommended dry film thickness	Ground Plane: 3.0 - 5.0 mils (75 - 125 μm) Top Coat: 10.0 - 20.0 mils (250 - 500 μm) depending on system
Theoretical spreading rate	See spreading rate tables
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 Topcoat Resin: at least 24 months when stored cool and dry Topcoat Hardener: at least 24 months when stored cool and dry



#### **RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES**

• All surfaces must be sound, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint, and other foreign substances

#### **Concrete**

- Prepare the surface in accordance with SSPC SP-13 standards
- New concrete must cure a minimum of 28 days prior to application of this product
- Test for moisture by conducting a plastic sheet test in accordance with ASTM D4263

#### Aged coatings

- Power tool clean in accordance with SSPC SP-3 or hand tool clean to SSPC SP-2 requirements
- Apply a test patch to confirm compatibility and adhesion

#### SYSTEM SPECIFICATION

 Recommended primer for concrete: PPG Flooring 912 LV (formerly known as Milamar ICO Primer LV). Refer to Technical Data Sheet

#### **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

#### **INSTRUCTIONS FOR USE**

# Mixing ratio by volume: base to hardener 3:1 Ground Plane; 2:1 Top Coat

- Prepare Ground Plane and Top Coat separately following the mixing procedures for both products
- 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.



## **Application**

- Full system: PPG FLR 912LV Primer, PPG FLR 422 Ground Plane, PPG FLR 422 Top Coat, and copper grounding 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
- Where a slip resistant finished floor is required, an additional coat with the appropriate aggregate can be pre-mixed with the A- and B-components or broadcast into the wet coating
- Apply a first coat of ESD Topcoat at 8-10 mils for anchoring. Mix approximately 11 lbs (5 kg) of 90-100 mesh sand in a 4 gallon (15 L) kit of ESD Topcoat and apply a second coat of ESD Topcoat with sand at 8-10 mils. 40-50 or 20-30 mesh sand, aluminum oxide, or other larger grain sizes can be applied in a single layer of 15-20 mils.

## Pot life

See ADDITIONAL DATA - Pot life

#### **Cleaning procedure**

• All application equipment must be cleaned immediately after use

## **ADDITIONAL DATA**

#### **Resistivity**

- Ground Plane & Top Coat: 1x10<sup>5</sup> 1x10<sup>6</sup> ohms
- Top Coat only: 1x10<sup>6</sup> 1x10<sup>8</sup> ohms

Physical data of cured material			
Characteristic	Value		
Hardness, Shore D (ASTM D2240)	76		
Impact Resistance (ASTM D2794) direct / indirect	60 in-lb / 32 in-lb.		
Abrasion resistance (ASTM D4060)	<50 mg		
Mandrel Elongation (ASTM D522)	32% (max.)		
Adhesion to Concrete (ASTM D4541)	400 - 800 PSI *		

Notes:

- The value ranges stated in this Product Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.
- \* note: adhesion testing led to substrate failure before coating bond loss



Spreading rate and film thickness - 422 Ground Plane		
DFT	Theoretical spreading rate	
3.0 mils (75 µm)	213.9 ft²/US gal (5.2 m²/l)	
5.0 mils (125 µm)	128.3 ft²/US gal (3.1 m²/l)	

Spreading rate and film thickness - 422 Top Coat		
DFT	Theoretical spreading rate	
10 mils (250 µm)	160.4 ft²/US gal (3.9 m²/l)	
15 mils (375 μm)	106.9 ft²/US gal (2.6 m²/l)	
20 mils (500 µm)	80.2 ft²/US gal (2.0 m²/l)	

Overcoating interval				
Overcoating with	Interval	59°F (15°C)	77°F (25°C)	95°F (35°C)
PPG Flooring 104	Minimum	8 hours	4 hours	2 hours
	Maximum	60 days	30 days	15 days
PPG Flooring 422	Minimum	6 hours	3 hours	1.5 hours
ESD Ground Plane	Maximum	14 days	7 days	4 days
PPG Flooring 422	Minimum	24 hours	12 hours	6 hours
ESD Top Coat	Maximum	60 days	30 days	15 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



Curing time for Top Coat					
Substrate temperature	Dry to touch	Tack free time	Light traffic	Heavy traffic	Full cure
59°F (15°C)	10 hours	20 hours	36 hours	72 hours	14 days
77°F (25°C)	4 hours	12 hours	24 hours	48 hours	7 days
95°F (35°C)	2 hours	7 hours	16 hours	36 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	

Pot life of Top Coat		
Mixed product temperature	Pot life	
59°F (15°C)	40-50 minutes	
77°F (25°C)	20-25 minutes	
95°F (35°C)	10-15 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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#### **AVAILABILITY OF PACKAGING**

#### **Packaging**

4-Gallon kits

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