

# PPG Flooring 412 CS Coating System

Formerly known as Milamar 1200 CS Coating System

## DESCRIPTION

Three step, epoxy coating system designed to control electrostatic discharge

## PRINCIPAL CHARACTERISTICS

- Easy application
- Excellent adhesion
- In accordance with EOS/ESD Association 7.1 Standard
- Static dissipative  $1 \times 10^6$  to  $1 \times 10^9$
- Conductive range  $2.5 \times 10^4$  to  $1 \times 10^6$
- Good chemical resistance
- TYPICAL USES:
- Suitable for industrial areas with heavy traffic
- Electronic equipment plants
- Hangars
- Clean rooms
- Operating rooms

Note: This product was previously sold as Milamar 1200 CS Coating System

## COLOR AND GLOSS LEVEL

- Light & Medium Gray, Light & Medium Blue, Light & Medium Green

## BASIC DATA AT 75°F (24°C)

Data for Complete System	
VOC (Supplied)	max. 0.2 lb/US gal (approx. 23 g/l)
Theoretical spreading rate	300 ft <sup>2</sup> /US gal for 5.0 mils (7.4 m <sup>2</sup> /l for 127 µm)
Overcoating Interval	Minimum: 12 hours Maximum: 24 hours
Curing time	4 days
Dry to walk on	24 hours
Full cure after	7 days



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## Data for Complete System

<b>Shelf life</b>	Base: at least 12 months Hardener: at least 12 months
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### Notes:

- Listed data is for complete system that includes primer, mid-coat, and top coat.
- Recommended dry film thickness dependent on substrate and service conditions
- See ADDITIONAL DATA – Spreading rate and film thickness
- Curing time reflects maximum chemical resistance
- VOC (Supplied) for Ground Plane: 18.4 g/l per EPA test method 24
- VOC (Supplied) for Top Coat: 4.1 g/l per EPA test method 24
- VOC (Supplied) for recommended primer: 22.7 g/l per EPA test method 24

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Concrete

- All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint, and other foreign substances
- New concrete must cure a minimum of 28 days prior to application
- Prepare in accordance with SSPC SP-13 guidelines
- Surface texture of 100 grit sandpaper is desired for maximum adhesion

### Substrate temperature and application conditions

- Substrate temperature must be above 65°F (18°C) during application

## SYSTEM SPECIFICATION

### Primer

- Recommended primer PPG Flooring 912 LV (formerly known as Milamar ICO Primer LV) is included with this system kit. Refer to Technical Data Sheet.

## INSTRUCTIONS FOR USE

### Mix as packaged

- Mix primer parts A and B together for 2 minutes with a low speed Jiffy mixer or equivalent.
- Ground Plane base to hardener mixing ratio: 9:1 (4.5 gal:0.5 gal)
- Mix 412 CS Ground Plane parts A and B together for 2 minutes with a low speed Jiffy mixer or equivalent.
- Mixed product density for Ground Plane is 9.54 lb/gallon (1.14 kg/l)
- Do not mix more than can be applied in 30 minutes
- Top Coat base to hardener mixing ratio: 3:1 (3 gal:1 gal)
- Mix 412 CS Top Coat parts A and B together for 2 minutes with a low speed Jiffy mixer or equivalent.
- Mixed product density for Top Coat is 9.41 lb/gallon (1.13 kg/l)
- Do not mix more than can be applied in 15 minutes
- Properly mixed material will be a uniform color without light or dark spots



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## Application

- Primer: Pour entire mix onto floor in a continuous ribbon. Level the mixture with a flat squeegee, then back roll with 3/8 in (9.5 mm) nap roller
- Ground Straps should be placed every 1,000 square ft (92 m<sup>2</sup>) or as needed over cured Primer prior to application of Ground Plane
- 412 CS Ground Plane: Pour entire mix onto floor in a continuous ribbon. Level the mixture with a flat squeegee, then back roll with 3/8 in (9.5 mm) nap roller
- 412 CS Top Coat: Pour entire mix onto floor in a continuous ribbon. Level the mixture with a flat squeegee, then back roll with 3/8 in (9.5 mm) nap roller
- Product working time is 20 minutes at 70°F (21°C)

## Cleaning solvent

AMERCOAT 12, acetone, or isopropyl alcohol

## Cleaning procedures

- Clean mixer and all tools immediately after use to prevent material from bonding to surfaces.
- Clean tools and equipment with PPG AMERCOAT® 12 Cleaner or acetone
- Clean Ground Plane tools with soap and water prior to hardening

## ADDITIONAL DATA

Spreading rate and film thickness - 412 CS Ground Plane	
DFT	Theoretical spreading rate
5.0 mils (127 µm)	300 ft <sup>2</sup> /US gal (7.4 m <sup>2</sup> /l)

Spreading rate and film thickness - 412 CS Top Coat	
DFT	Theoretical spreading rate
7.0 mils (177 µm)	200 ft <sup>2</sup> /US gal (4.9 m <sup>2</sup> /l)

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Physical data of cured material	
Characteristic	Value
Tensile Strength (ASTM D638)	2,150 psi (15 MPa)
Compressive strength (ASTM C579)	6,750 psi (47 MPa)
Flexural Strength (ASTM C580)	2,275 psi (16 MPa)
Surface Abrasion	0.15 wear index
Coefficient of Friction	0.52
Flammability (ASTM D-635)	Self Extinguishing
Water Absorption (ASTM C413)	0.025%

Note: The value ranges stated in this Technical Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

## DISCLAIMER

- For industrial or professional use only
- This product is specifically suitable for use on the substrates mentioned in this document. For application on any other substrates, please always contact your distributor for specific instructions and in order to make sure that the product performance can be safeguarded.

## SAFETY PRECAUTIONS

- Read all label and Safety Data Sheet (SDS) information prior to use
- Care should be taken to prevent eye and skin contact
- Never seal a container of mixed Part A and B as the continuing exothermic reaction may cause container to explode

## WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and 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.

## REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SURFACE PREPARATION OF CONCRETE (FLOORS)	INFORMATION SHEET	1496
• SAFETY INDICATIONS	INFORMATION SHEET	1430

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## WARRANTY

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