PPG NOVAGUARD® 5053

Formerly known as Milamar ICO Super Guard SL

DESCRIPTION

Three-component, self-leveling novolac epoxy floor resurfacer.

PRINCIPAL CHARACTERISTICS

- 100% solids
- Self-leveling
- Low odor
- Excellent reistance to concentrated acids, caustics, and most solvents
- Good resistance to mechanical shock
- Bonds to concrete, metal, brick, and tile surfaces
- Can be used indoors or outdoors
- TYPICAL USES:
- Plating operations
- Chemical plants
- Tank Farms
- Chemical waste stoarage areas
- Laboratory floors
- Clean rooms

COLOR AND GLOSS LEVEL

- Light grey
- Tile red
- High gloss

BASIC DATA AT 77°F (25°C)

Data for mixed product	
Number of components	Three
Mass density	9.8 lb/US gal (1.2 kg/l)
Volume solids	100 ± 2%
VOC (Supplied)	EPA Method 24: 0.1 lb/US gal (8.7 g/l)
Recommended dry film thickness	62.5 - 125.0 mils (1587 – 3175 µm) per coat
Theoretical spreading rate	12.5 ft^2/US gal for 125.0 mils (0.3 m^2/l for 3175 µm) 25 ft^2/US gal for 62.5 mils (0.6 m^2/l for 1588 µm)
Dry to walk on	7 hours
Full cure after	7 days
Shelf life	Part A: at least 12 months when stored cool and dry Part B: at least 12 months when stored cool and dry Part C: at least 12 months when stored cool and dry

Notes:

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- "Full cure after" time reflects maximum hardness and chemical resistance at 77°F (25°C)
- See ADDITIONAL DATA – Curing time
- Contact PPG Technical Services to determine whether this product will meet your chemical resistance requirements.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Concrete

- All surfaces must be sound, 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 of this product
- Prepare in accordance with SSPC SP-13 guidelines
- Abrade surface to achieve a surface profile equivalent to CSP 4 to CSP 6 in accordance with ICRI 310.2R-2013
- Concrete pH must be 7.0 or higher
- Product is self-priming on most surfaces. For porouse substrates, primer seal surface first with PPG Flooring 912 LV before applying product.
- Cracks 1/8" (3175 µm) wide or greater, pour joints, and construction joints must be cleaned and filled with NOVAGUARD® 5090 filler.

SYSTEM SPECIFICATION

- Expansion joints, control joints, and moving cracks should be filled with appropriate sealant or filler

Chemical Resistances

- 98% sulfuric acid
- 85% phosphoric acid
- 30% nitric acid
- 50% hydrofluoric acid

Note:

- A more complete list of chemical resistances is available by request from PPG PMC Technical Services

INSTRUCTIONS FOR USE

Mixing Instructions

- Pre-mix Part A for at least one minute.
- Then add Part B to Part A
- Slowly add Part C and mix for another 1-2 minutes
- Properly mixed material will be a uniform color without light or dark spots

Note:

- Product comes pre-packaged in proper ratio. If less than a full batch is needed, contact PPG technical services.

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Application

- If priming, allow the primer to dry tack free
- Apply with gauge rake, notched rubber squeegee or steel trowel. Use porcupine roller to help level the floor and for avoiding air entrapment
- Product working time is 20 minutes at 77°F (25°C)
- If a slip-resistant surface is desired, broadcast silica sand, aluminum oxide, or other suitable filler to rejection, then top coat with PPG NOVAGUARD® 5051.

Notes:

- Do not apply below 50°F (10°C)
- Do not apply at less than 60 mils (1524 µm) per coat
- Do not apply on a floor sloped > 1/8 in. per ft. (10.4 mm per meter)
- Do not apply in severe thermal shock environment

Pot life

30 minutes at 77°F (25°C)

Note:

- See ADDITIONAL DATA – Pot life

ADDITIONAL DATA

Physical data of cured material	
Characteristic	**Value**
Tensile Strength (ASTM C307)	2277 psi (15.7 MPa)
Compressive strength (ASTM C579)	5118 psi (35.3 MPa)
Tensile Elongation (ASTM C307)	6.4%
Hardness, Shore D (ASTM D2240)	83
Flexural Strength (ASTM C580)	3825 psi (26.4 MPa)
Water Absorption (ASTM D570)	2% in 24 hrs
Coefficient of Thermal Expansion (D696)	5.9×10^{-5}
Taber Abrasion (ASTM D4060, CS-17 Wheel, 1 kg load, 1,000 cycles)	102 mg. loss
Bond Strength (ASTM C482)	1,000 psi (6.9 MPa)*

Note:

- * note: adhesion testing led to substrate failure before coating bond loss

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Curing Time	
Substrate temperature	**Dry to walk on**
50°F (10°C)	10 hours
77°F (25°C)	7 hours
90°F (32°C)	4 hours

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	35 minutes
77°F (25°C)	30 minutes
90°F (32°C)	20 minutes

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 or PPG representative for specific instructions and in order to make sure that the product performance can be maintained.
- Chemical resistance properties shown on the data sheet are for general information only. Always check with PPG PMC Technical Support to verify resistance to the specific chemical exposure for the service being considered.

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.

REFERENCES

- Information sheet | Explanation of product data sheets

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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AVAILABILITY OF PACKAGING

Packaging

- 4-Gallon kits

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