

# PPG NOVAGUAR® 5031

Formerly known as Milamar ICO Guard Coating GF

## DESCRIPTION

Two-component, glass flake reinforced epoxy

## PRINCIPAL CHARACTERISTICS

- Ultra High Solids
- Solvent free
- Excellent resistance to acids, caustics, detergents and other corrosive materials
- Excellent adhesion to dry and damp substrates
- Suitable for use in confined spaces and underground concrete applications
- Low odor
- Can be applied horizontally, vertically and overhead
- Bonds to dry and damp concrete, wood, metal, tile, terrazzo and existing epoxy and urethane coatings
- TYPICAL USES:
- Clarifiers
- Manholes
- Suitable for tank lining
- Waste water and sewage treatment plants

## COLOR AND GLOSS LEVEL

- White, Gray, Dark Gray, Beige, Yellow, Red, Green, Blue, Brown, Black
- High gloss

Note:

- Listed colors are standard available colors for finished product.

## BASIC DATA AT 70°F (21°C)

Data for mixed product	
Number of components	Two
Mass density	10.0 lb/US gal (1.2 kg/l)
Volume solids	99% ± 2%
Recommended dry film thickness	20.0 mils (500 µm) per coat
Theoretical spreading rate	80 ft <sup>2</sup> /US gal for 20.0 mils (2.0 m <sup>2</sup> /l for 500 µm)
Dry to touch	16 hours
Dry to walk on	30 hours
Curing time	30 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

Notes:



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- The "% solids" data was measured and reported in accordance with EPA Method 24 Test E.
- Recommended dry film thickness dependent on substrate and service conditions
- If overcoat time is exceeded, abrade and clean surface before recoating
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- The shelf life for the unmixed components (Part A and Part B) for this product is 12 months at 77°F (25°C)
- Two 20-mil coats are recommended for optimal permeation resistance in immersion
- Contact PPG Technical Services to determine whether this product will meet your chemical resistance requirements.

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### RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Surface must be clean, uniform, sound, and free from contamination (such as oil, grease, rust, scale, or deposits)

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#### Concrete

- New concrete must cure a minimum of 28 days prior to application of this product
- Prepare in accordance with SSPC SP-13 guidelines
- Test for moisture by conducting a plastic sheet test in accordance with ASTM D4263
- On worn, spalled concrete, pre-fill with NOVAGUARD 5090 and allow to dry tack-free.

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### SYSTEM SPECIFICATION

#### Chemical Resistances

- 36% hydrochloric acid
- 30% nitric acid
- 50% Sulfuric Acid
- 50% sodium hydroxide

#### Note:

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

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### INSTRUCTIONS FOR USE

#### Mixing ratio

- Pre-mix Part A prior to combining with Part B, using a low speed jiffy-type mixer for 30 seconds
- Pour Part B into Part A container and thoroughly mix the two components of the kit together for at least 30-60 seconds at low speeds.
- Properly mixed material will be a uniform color without light or dark spots

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## Application

- Apply by airless spray or brush
- Apply by roller

Note:

- Indicated working times are for product with standard hardener

## Airless spray

- Use 3/4" I.D. minimum material hose

## Nozzle orifice

0.021 in (approx. 0.53 mm)

## Nozzle pressure

3500 p.s.i. (approx. 242 bar; 24.1 MPa)

## Brush/roller

- Apply by brush or 1/4" nap adhesive roller

## ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Tensile Strength (ASTM D638)	4925 psi
Tensile Elongation (ASTM D638)	9%
Hardness, Shore D (ASTM D2240)	80
Impact Strength	80 in/lbs.

Note:

- 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.

Overcoating interval		
Overcoating with...	Interval	70°F (21°C)
itself	Minimum	30 hours



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Curing Time		
Substrate temperature	Tack free time	Dry hard
50°F (10°C)	28 hours	64 hours
70°F (21°C)	16 hours	30 hours
90°F (32°C)	7 hours	12 hours

Pot life (at application viscosity)	
Mixed product temperature	Pot life
50°F (10°C)	50 minutes
70°F (21°C)	40 minutes
90°F (32°C)	20 minutes

Note:

- Higher temperatures and relative humidity will shorten pot life and working time

## 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 PPG representative for specific instructions and in order to make sure that the product performance can be safeguarded.
- 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



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## WARRANTY

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## AVAILABILITY OF PACKAGING

### Packaging

- 4-Gallon kits

