

PPG NOVAGUARD® 5041 GF

Formerly known as ICO HI Guard Coating GF™

DESCRIPTION

Two-component, glass flake-filled epoxy novolac coating

PRINCIPAL CHARACTERISTICS

- Excellent resistance to acids, caustics, detergents and other corrosive materials
- 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
- Good resistance to thermal and mechanical shock
- TYPICAL USES:
- Suitable for primary containment applications
- High chemical immersion resistance
- Excellent chemical resistance for splash & spill areas
- Paper and pulp mills
- Pickling lines
- Pits and trenches

COLOR AND GLOSS LEVEL

- Gray, Dark Gray, Beige, Red, Green, Black, Blue
- High gloss

BASIC DATA AT 77°F (25°C)

Data for mixed product	
Number of components	Two
Mass density	9.1 lb/US gal (1.1 kg/l)
Volume solids	100 ± 2%
VOC (Supplied)	max. 0.1 lb/US gal (approx. 15 g/l)
Recommended dry film thickness	10.0 mils (250 µm) per coat - Minimum Two Coats
Theoretical spreading rate	80 ft ² /US gal for 20.0 mils (2.0 m ² /l for 500 µm)
Dry to walk on	16 hours
Overcoating Interval	16 hours at 21°C (70°F)
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:

- Material should be stored in dry conditions, out of direct sunlight, and in unopened original factory containers
- Full cure after reflects maximum hardness and chemical resistance at 77°F (25°C)
- For immersion service, the product should be applied at 12 - 15 mils (305 - 380 µm) total in 3 coats



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Ambient temperature should be between 50°F (10°C) and 90°F (32°C) during application
- All surfaces must be sound, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint, and other foreign substances

Concrete

- New concrete must cure a minimum of 28 days prior to application of this product
- Prepare in accordance with SSPC SP-13 guidelines
- Surface texture of minimum 40-50 grit sandpaper is desired for maximum adhesion
- On worn, spalled concrete, pre-fill with NOVAGUARD 5090 and allow to dry tack-free.

Metal

- Abrasive blast with an angular abrasive to an SSPC SP-5 (NACE No. 1) cleanliness for optimum performance
- Apply this product as soon as possible after blasting to avoid rusting and contamination. Do not wait more than 8 hours between blasting and application.

SYSTEM SPECIFICATION

- If substrate is particularly porous, PPG Flooring™ 912 LV primer can be applied and allowed to dry tack free before applying first coat

Chemical Resistances

- 30% chromic
- 98% sulfuric acid
- 85% phosphoric acid
- 80% lactic acid
- 50% sodium hydroxide
- 20% ammonium hydroxide
- Most oils and greases

Notes:

- Do not use if immersion temperatures will exceed 140°F (60°C)
- Some discoloration may occur after prolonged contact with certain chemicals, though the coating integrity will remain intact for the expected life of the product

INSTRUCTIONS FOR USE

Mixing ratio by volume: 1.5:1 (Part A to Part B)

- Mix Part A for 30-60 seconds using a low speed Jiffy-type mixer
- Mix Part A thoroughly to ensure glass flakes are distributed uniformly
- Mix Part A and Part B together using a low speed Jiffy-type mixer
- Properly mixed material will be a uniform color without light or dark spots

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Application

- Apply by spray, brush or roller application
- Allow to dry tack-free
- Product working time is 30 minutes at 50°F (10°C)
- Product working time is 30 minutes at 77°F (25°C)
- Product working time is 20 minutes at 90°F (32°C)

Note:

- Do not apply below 50°F (10°C)
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Pot life

25 minutes at 77°F (25°C)

Note:

- See ADDITIONAL DATA – Pot life
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Airless spray

- Use 3/4" I.D. minimum material hose
- Achieve 3,500 psi (24 MPa)

Recommended thinner

Do not thin

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 3/8" nap adhesive roller
- Immediately after mixing, pour the mixture into rolling pans to prolong pot life

Recommended thinner

Do not thin

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ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Tensile Strength (ASTM D638)	4200 psi (29 MPa)
Tensile Elongation (ASTM D638)	13%
Bond Strength (ASTM C482)	>1000 psi (>6.895 MPa)
Hardness, Shore D (ASTM D2240)	75
Impact Resistance (ASTM D2794) direct / indirect	80 lb-in (9.04 Nm)

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.

Curing Time	
Substrate temperature	Dry to service
50°F (10°C)	24 hours
77°F (25°C)	16 hours
90°F (32°C)	5 hours

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

DISCLAIMER

- 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.
- For industrial or professional use only
- 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.



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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

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AVAILABILITY OF PACKAGING

Packaging

- 4-gallon kits

