

PPG NOVAGUARD™ 275

DESCRIPTION

Two-component, high-build, amine adduct-cured novolac phenolic epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- Excellent resistance to a wide range of chemicals, including resistance to used cooking oils (UCO) up to 90°C. Refer to the chemical resistance list for review of notes that apply to your immersion conditions
- Maximum cargo flexibility
- Can be specified as 2 or 3 coat system
- Low cargo absorption
- Easy to clean
- Good resistance to hot water
- Can be applied and cures at temperatures down to 5°C (41°F)
- Good application properties, resulting in a smooth easy cleanable surface
- Can be used as holding primer for all solvent-free epoxy and novolac tank coatings

COLOR AND GLOSS LEVEL

- Cream, gray
- Low sheen

Note:

- Any color can be used as primer, intermediate or finish by color preference

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.8 kg/l (15.0 lb/US gal)
Volume solids	68 ± 2%
VOC (Supplied)	max. 321.0 g/l (approx. 2.8 lb/US gal)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils)
Theoretical spreading rate	6.8 m ² /l for 100 µm (273 ft ² /US gal for 4.0 mils) 4.5 m ² /l for 150 µm (182 ft ² /US gal for 6.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 8 hours Maximum: 14 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:



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- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel should be blast cleaned to ISO-Sa2½, blasting profile 50 – 100 µm (2.0 – 4.0 mils)
- Steel must be free from rust, scale, shop primer and any other contamination
- The substrate must be perfectly dry before and during application of NOVAGUARD 275

Substrate temperature and application conditions

- Substrate temperature during application and curing should be above 5°C (41°F)
- Substrate temperature during application should be at least 3°C (5°F) above dew point

SYSTEM SPECIFICATION

For use as a holding primer

- NOVAGUARD 275: 50 to 75 µm (2.0 to 3.0 mils)

For use as a tank coating

- NOVAGUARD 275: 2 coats of 150 µm (6.0 mils) each, or 3 coats of 100 µm (4.0 mils) each, to reach 300 µm (12.0 mils) total dry film thickness

Notes:

- The specified total minimum DFT is 300 µm, the average maximum DFT is 400 µm
- The average DFT of the first coat should not exceed the specified DFT (i.e 150 µm DFT for the 2-coat system or 100 µm DFT for the the 3-coat system); the first coat does not need to provide full hiding, and a cloudy appearance is acceptable
- On critical areas of a structure painted with NOVAGUARD 275, 10% of the spot readings can be between 400 – 600 µm (16.0 – 24.0 mils). Individual gauge readings can be between 600 – 700 µm (24.0 – 28.0 mils). Critical areas are e.g. weld seams, edges, bolts, corners, nuts and areas of difficult access

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 86.5:13.5 (6.4:1)

- The temperature of the mixed base and hardener should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Adding too much thinner results in reduced sag resistance and slower cure
- Thinner should be added after mixing the components

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Induction time

0 minute

Note:

- No induction time required for temperature above 15°C (59°F)

Table of Induction time

Mixed product induction time	
Mixed product temperature	Induction time
5°C (41°F)	20 minutes
10°C (50°F)	15 minutes
15°C (59°F)	10 minutes
20°C (68°F)	0 minute

Pot life

2 hours at 20°C (68°F)

Note:

- See ADDITIONAL DATA – Pot life

Air spray**Recommended thinner**

THINNER 91-92

Volume of thinner

5 - 10%, depending on required thickness and application conditions

Nozzle orifice

2.0 mm (approx. 0.079 in)

Nozzle pressure

0.3 MPa (approx. 3 Bar; 44 p.s.i.)

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Airless spray**Recommended thinner**

THINNER 91-92

Volume of thinner

0 - 10%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.46 – 0.53 mm (0.018 – 0.021 in)

Nozzle pressure

15.0 MPa (approx. 150 bar; 2176 p.s.i.)

Brush/roller**Recommended thinner**

THINNER 91-92

Volume of thinner

0 - 5%

Cleaning solvent

- THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
50 µm (2.0 mils)	13.6 m ² /l (545 ft ² /US gal)
75 µm (3.0 mils)	9.1 m ² /l (364 ft ² /US gal)
100 µm (4.0 mils)	6.8 m ² /l (273 ft ² /US gal)
150 µm (6.0 mils)	4.5 m ² /l (182 ft ² /US gal)

Note:

- Maximum DFT when brushing: 80 µm (3.1 mils)
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Overcoating interval for DFT up to 100 µm (4.0 mils) as primer, intermediate coat and stripe coat

Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	24 hours	20 hours	14 hours	8 hours	6 hours
	Maximum	28 days	25 days	21 days	14 days	7 days

Note:

- Surface should be dry and free from any contamination

Overcoating interval for DFT up to 150 µm (6.0 mils)

Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	30 hours	24 hours	18 hours	10 hours	8 hours
	Maximum	28 days	25 days	21 days	14 days	7 days

Overcoating interval for use of NOVAGUARD 275 as holding primer (up to 100 µm (4.0 mils))

Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	15°C (59°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
solvent free epoxy and novolac epoxy tanklining	Minimum	24 hours	20 hours	14 hours	8 hours	5 hours	3 hours
	Maximum	2 months	2 months	2 months	1 month	1 month	1 month

Note:

- When used as a (holding) primer under solvent-free tanklinings the DFT must be limited to a maximum of 100 µm (4.0 mils)

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Curing time for full system - DFT up to 300 µm (12.0 mils)			
Substrate temperature	Dry to handle	Minimum cure time for storage of chemicals without notes 4, 7 or 11	Minimum curing time before storage of used cooking oils
5°C (41°F)	14 hours	7 days	14 days
10°C (50°F)	12 hours	5 days	12 days
15°C (59°F)	10 hours	4 days	10 days
20°C (68°F)	8 hours	3 days	7 days
30°C (86°F)	6 hours	48 hours	48 hours

Notes:

- Minimum post-curing time of NOVAGUARD 275 system before transport of cargoes with note 4, 7 or 11: 3 months
- For detailed information on resistance and resistance notes, please refer to the latest issue of the cargo resistance list
- Adequate ventilation must be maintained during application and curing
- When used as a primer under solvent-free tank-linings the DFT must be limited to a maximum of 100 µm (4.0 mils)

Pot life (at application viscosity)	
Mixed product temperature	Pot life
5°C (41°F)	8 hours
10°C (50°F)	6 hours
15°C (59°F)	4 hours
20°C (68°F)	2 hours
30°C (86°F)	1 hour
40°C (104°F)	30 minutes

SAFETY PRECAUTIONS

- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes
- See Safety Data Sheet and product label for complete safety and precaution requirements

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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WARRANTY

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