PHENGUARD™ PRO Q

DESCRIPTION

Two-component, high-build chemical resistant novolac phenolic epoxy tank coating

PRINCIPAL CHARACTERISTICS

- Two-coat PHENGUARD tank coating system
- Quick curing version, also suitable for lower application temperatures down to 5°C (41°F)
- Excellent resistance to a wide range of organic acids, alcohols, fats (regardless of free fatty acid content) and solvents
- Maximum cargo flexibility
- Low cargo absorption
- Easy to clean
- Good resistance to hot water
- Good application properties, resulting in a smooth surface

COLOR AND GLOSS LEVEL

- Cream, gray
- Eggshell

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.7 kg/l (14.2 lb/US gal)
Volume solids	70 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 190.0 g/kg max. 321.0 g/l (approx. 2.7 lb/US gal)
Recommended dry film thickness	125 µm (5.0 mils)
Theoretical spreading rate	5.6 m^2/l for 125 µm (225 ft^2/US gal for 5.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 12 hours Maximum: 14 days
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 months when stored cool and dry

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

PHENGUARD™ PRO Q

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel should be blast cleaned in situ to at least 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 PHENGUARD PRO Q

Substrate temperature and application conditions

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

SYSTEM SPECIFICATION

- PHENGUARD PRO Q cream: 125 µm (5.0 mils)
- PHENGUARD PRO Q grey: 125 µm (5.0 mils)

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 87:13

- 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
- Thinner should be added after mixing the components

Induction time

Allow induction time before use

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

Pot life

2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

PHENGUARD™ PRO Q

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.)

Airless spray

Recommended thinner
THINNER 91-92

Volume of thinner
5 - 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

PHENGUARD™ PRO Q

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
125 µm (5.0 mils)	5.6 m^2/l (225 ft^2/US gal)
150 µm (6.0 mils)	4.7 m^2/l (187 ft^2/US gal)

Note: Maximum DFT when brushing: 60 µm (2.4 mils)

Overcoating interval for DFT up to 125 µm (5.0 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	28 hours	24 hours	18 hours	12 hours	8 hours
	Maximum	28 days	25 days	21 days	14 days	7 days

Note: Surface should be dry and free from any contamination

Curing time for DFT up to 125 µm (5.0 mils)	
Substrate temperature	**Minimum curing time before transport of cargoes without note 4, 7, 8 or 11**
5°C (41°F)	7 days
10°C (50°F)	5 days
15°C (59°F)	4 days
20°C (68°F)	3 days
30°C (86°F)	48 hours

Notes:
- Minimum curing time before transport of cargoes with note 4,7,8 or 11: 3 months
- For detailed information on resistance and resistance notes, please refer to the latest issue of the cargo resistance list
- For transport of methanol and vinyl acetate monomer, a hot cure is required, which cannot be substituted by a service period of 3-months with non-aggressive cargoes
- The hot cure procedure should not be carried out during sea trials
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

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

PHENGUARD™ PRO Q

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- 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

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
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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