

New Guard Coatings Group

□ A global reputation to protect.

You have acquired this data sheet from the New Guard Coatings Group.

All information listed is correct at the time of print.



uksales@newguardcoatings.com



+44 1937 586311

Global Head Office: New Guard Coatings Ltd, Sandbeck Way, Wetherby, Leeds, LS22 7DN



SIGMAGUARD™ 720

DESCRIPTION

Two-component, reinforced high solids tank coating, based upon polyamine adduct cured pure epoxy technology

PRINCIPAL CHARACTERISTICS

- Tank coating with good chemical resistance against a wide range of chemicals
- Short curing periods
- Good low-temperature curing
- Easy to clean
- Recognized corrosion control coating (Lloyd's Register)

COLOR AND GLOSS LEVEL

- Light green, gray
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.4 kg/l (11.7 lb/US gal)
Volume solids	78 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 163.0 g/kg max. 233.0 g/l (approx. 1.9 lb/US gal)
Recommended dry film thickness	125 - 160 µm (5.0 - 6.3 mils) depending on system
Theoretical spreading rate	6.2 m ² /l for 125 µm (250 ft ² /US gal for 5.0 mils)
Dry to touch	3 hours
Overcoating Interval	Minimum: 8 hours Maximum: 28 days
Full cure after	See curing table
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 24 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

SIGMAGUARD™ 720

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Steel; blast cleaned to a minimum of ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
 - Previous coat must be dry and free from any contamination
 - Surface of previous coat should be sufficiently roughened if necessary
-

IMO-MSC.288(87) requirements for cargo tanks of crude oil tankers

- Steel; ISO 8501-3:2006 grade P2, with all edges treated to a rounded radius of minimum 2 mm (0.079 in) or subject to three pass grinding or at least equivalent process before painting
 - Steel; blast cleaned to ISO-Sa2½, blasting profile 30 – 75 µm (1.2 – 3.0 mils)
 - Dust quantity on the surface to be coated must not exceed rating "1" for dust size class "3", "4" or "5" (ISO 8502-3-2017). Lower dust size classes ("1" and/or "2") to be removed if visible without magnification.
-

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

System for chemical resistance according to the latest issue of the chemical resistance list.

- SIGMAGUARD 720: 125 µm (5.0 mils)
 - SIGMAGUARD 720: 125 µm (5.0 mils)
-

System for cargo tanks of Crude Oil Tankers according to IMO resolution MSC.288(87).

- SIGMAGUARD 720: 160 µm (6.3 mils)
 - SIGMAGUARD 720: 160 µm (6.3 mils)
-

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 75:25 (3:1)

- 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
-

SIGMAGUARD™ 720

Induction time

Allow induction time before use

Mixed product induction time	
Mixed product temperature	Induction time
15°C (59°F)	15 minutes
20°C (68°F)	10 minutes
25°C (77°F)	5 minutes

Pot life

1.5 hours at 20°C (68°F)

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

5 - 15% for a one coat application of 125 µm (5.0 mils) DFT

Nozzle orifice

1.8 - 2.0 mm (approx. 0.070 - 0.079 in)

Nozzle pressure

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 10% for a one coat application of 125 µm (5.0 mils) DFT

Nozzle orifice

Approx. 0.53 - 0.69 mm (0.021 - 0.027 in)

Nozzle pressure

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

Brush/roller

- For stripe coating and spot repair only

SIGMAGUARD™ 720

Cleaning solvent

THINNER 90-53

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
100 µm (4.0 mils)	7.8 m ² /l (313 ft ² /US gal)
125 µm (5.0 mils)	6.2 m ² /l (250 ft ² /US gal)
160 µm (6.3 mils)	4.9 m ² /l (199 ft ² /US gal)

Note: Maximum DFT when brushing: 100 µm (4.0 mils)

Overcoating interval for DFT up to 125 µm (5.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	32 hours	24 hours	8 hours	4 hours	3 hours
	Maximum	28 days	28 days	28 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 aliphatic petroleum products and ballast water and tanktest with seawater	Minimum curing time before transport of cargoes without note 4, 7, 8 or 11
5°C (41°F)	10 days	17 days
10°C (50°F)	7 days	14 days
15°C (59°F)	5 days	8 days
20°C (68°F)	3 days	5 days
30°C (86°F)	60 hours	4 days
40°C (104°F)	36 hours	3 days

Notes:

- Minimum curing time of SIGMAGUARD 720 tank coating system 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 Tank coating Resistance List (TRIS)
- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

SIGMAGUARD™ 720

Curing time for DFT up to 125 µm (5.0 mils)

Substrate temperature	Dry to touch
5°C (41°F)	7 hours - 8 hours
10°C (50°F)	5 hours - 6 hours
20°C (68°F)	2 hours - 3 hours

Pot life (at application viscosity)

Mixed product temperature	Pot life
15°C (59°F)	3 hours
20°C (68°F)	1.5 hours
25°C (77°F)	1 hour
30°C (86°F)	30 minutes

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

SIGMAGUARD™ 720

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.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

