

SIGMACOVER™ 380 LT

DESCRIPTION

Universal epoxy anticorrosive primer, based upon pure epoxy technology

PRINCIPAL CHARACTERISTICS

- Universal epoxy primer system suitable for Ballast Tanks, Decks, Topside, Superstructure and Hull
- Good abrasion resistance for dedicated areas of application
- Suitable for immersion service (ballast tanks, outside shell)
- Good drying- and curing properties at low substrate temperature (down to -5°C (23°F))
- Good anticorrosive properties and water resistance
- Good flexibility
- Resistant to well designed cathodic protection
- Suitable for both newbuilding and maintenance applications

COLOR AND GLOSS LEVEL

- Grey, green, yellow green, light grey
- Low sheen

BASIC DATA AT 10°C (50°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal)
Volume solids	80 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 153.0 g/kg max. 230.0 g/l (approx. 1.9 lb/US gal)
Recommended dry film thickness	125 - 200 µm (5.0 - 8.0 mils) depending on system
Theoretical spreading rate	6.4 m ² /l for 125 µm (257 ft ² /US gal for 5.0 mils) 4.0 m ² /l for 200 µm (160 ft ² /US gal for 8.0 mils)
Dry to touch	8 hours
Overcoating Interval	Minimum: 16 hours Maximum: 1 month
Full cure after	5 days
Shelf life	Base: at least 24 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

SIGMACOVER™ 380 LT

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Immersion exposure

- Steel or steel with not approved zinc silicate shop primer; blast cleaned (dry or wet) to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils)
 - Steel with approved zinc silicate shop primer; weld seams and areas of damaged shop primer or breakdown should be blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils) or power tool cleaned to SPSS-Pt3
 - Previous coat must be dry and free from any contamination
 - At freezing temperatures surface must be free from ice
-

IMO-MSC.215(82) requirements for water ballast tanks

- 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
 - Steel or steel with not approved zinc silicate shop primer: blast cleaned (dry or wet) to ISO-SA2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils)
 - Steel with approved zinc silicate shop primer; weld seams and areas of shop primer damage or break down should be blast cleaned to Iso-Sa 2½ blasting profile 30 - 75 µm (1.2 - 3.0 mils): [1] For shop primer with IMO type approval; no additional requirements; [2] For shop primer without IMO type approval; blast cleaned to ISO-Sa2 removing at least 70% of intact shop primer, blasting profile 30 - 75 µm (1.2 - 3.0 mils)
 - Damages up to 2% of the total area of the tank may be treated to ISO-St3. Damages over 2% of the total area of the tank or contiguous damages over 25 m² (269 ft²) have to be blast cleaned to ISO-Sa2½.
 - Previous coat must be dry and free from any contamination
 - Dust quantity rating "1 for dust size class "3", "4" or "5", lower dust size classes to be removed if visible on the surface to be coated without magnification (ISO 8502-3:1992)
 - At freezing temperatures surface must be free from ice
-

Atmospheric exposure conditions

- Steel blast cleaned to ISO-Sa2½, blasting profile 30 - 75 µm (1.2 - 3.0 mils) or according to ISO-St3
 - Shop primed steel; pretreated to SPSS-Pt3
 - Galvanized steel must be free from grease, salts and any contamination
 - Galvanized steel must be sweep blasted or otherwise roughened
 - Previous coat must be dry and free from any contamination
 - At freezing temperatures surface must be free from ice
-

Substrate temperature and application conditions

- Substrate temperature during application and curing should be between -10°C (14°F) and 15°C (59°F)
 - Substrate temperature during application and curing down to -10°C (14°F) is acceptable; however curing to hardness takes longer and complete resistance will be reached when the temperature increases
 - Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
 - Relative humidity during application and curing should not exceed 85%
-

SIGMACOVER™ 380 LT

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 4:1

- The temperature of the mixed base and hardener should preferably be above 5°C (41°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

Table of Induction time

Mixed product induction time	
Mixed product temperature	Induction time
Below 10°C (50°F)	30 minutes

Pot life

5 hours at 10°C (50°F)

Note:

- See ADDITIONAL DATA – Pot life

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

20.0 - 25.0 MPa (approx. 200 - 250 bar; 2901 - 3626 p.s.i.)

Brush/roller

- For stripe coating and spot repair only

Cleaning solvent

- THINNER 90-53



SIGMACOVER™ 380 LT

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
125 µm (5.0 mils)	6.4 m ² /l (257 ft ² /US gal)
160 µm (6.3 mils)	5.0 m ² /l (204 ft ² /US gal)
200 µm (8.0 mils)	4.0 m ² /l (160 ft ² /US gal)

Note:

- Maximum DFT in critical areas, applied in two equal coats: 1500 µm (60.0 mils)

Overcoating interval for DFT up to 160 µm (6.3 mils)						
Overcoating with...	Interval	-5°C (23°F)	0°C (32°F)	5°C (41°F)	10°C (50°F)	15°C (59°F)
itself and various two-pack epoxy coatings	Minimum	48 hours	36 hours	24 hours	16 hours	12 hours
	Maximum	2 months	2 months	2 months	1 month	1 month
SIGMADUR and one-component products, such as acrylics and alkyds	Minimum	48 hours	36 hours	24 hours	16 hours	12 hours
	Maximum	14 days	14 days	14 days	14 days	14 days

Note:

- Surface should be dry and free from any contamination

Curing time for DFT up to 160 µm (6.3 mils)			
Substrate temperature	Dry to touch	Dry to handle	Full cure
-5°C (23°F)	24 hours	48 hours	20 days
0°C (32°F)	12 hours	24 hours	14 days
5°C (41°F)	10 hours	20 hours	7 days
10°C (50°F)	8 hours	16 hours	5 days
15°C (59°F)	4 hours	12 hours	4 days

Notes:

- Adequate ventilation must be maintained during application and curing
- When the application temperature is over 15°C (59°F) the standard hardener should be used

SIGMACOVER™ 380 LT

Pot life (at application viscosity)	
Mixed product temperature	Pot life
10°C (50°F)	5 hours
15°C (59°F)	3 hours

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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 & 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

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.



SIGMACOVER™ 380 LT

AVAILABILITY OF PACKAGING

Depending on specific country of application the following versions are available:

Article code	Color	Reference
384596	Grey	5000002200 (00383416 base, 00262195 hardener)
266987	Green	4100002200 (00250040 base, 00262195 hardener)
266986	Grey	5100002200 (00250042 base, 00262195 hardener)
388014	Light grey	5177052200 (00388012 base, 00262195 hardener)
344063	Yellow/green	4200002200 (00330709 base, 00262195 hardener)
