# SIGMAPRIME® 200 LT

## DESCRIPTION

Universal epoxy anticorrosive primer, based upon pure epoxy technology

## PRINCIPAL CHARACTERISTICS

- Universal epoxy primer system suitable for ballast tanks, deck, topside, superstructure, hull, cargo oil tanks and cargo holds
- Excellent anticorrosive properties and water resistance
- Surface tolerant primer
- Good chemical resistance
- Good abrasion resistance for dedicated areas of application
- Excellent adhesion to steel, shop primer, galvanized steel and non-ferrous metals
- Excellent recoatability
- Suitable for application and curing in a wide range of climatic conditions
- Suitable for bulk supply and twin feed application

## COLOR AND GLOSS LEVEL

- Gray, yellow/green and redbrown
- Low sheen

## 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** | 60 ± 2% |
| **VOC (Supplied)** | Directive 2010/75/EU, SED: max. 291.0 g/kg<br>max. 397.0 g/l (approx. 3.3 lb/US gal) |
| **Theoretical spreading rate** | 6.0 $m^2$/l for 100 µm (241 $ft^2$/US gal for 4.0 mils) |
| **Dry to touch** | 3 hours |
| **Full cure after** | 7 days |
| **Shelf life** | Base: at least 24 months when stored cool and dry<br>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

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## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Immersion exposure

- Steel or steel with not approved zinc silicate shop primer; blast cleaned 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 sound, dry and free from any contamination

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### IMO-MSC.215(82) requirements for water ballast tanks and IMO-MSC.288(87) for cargo tanks of crude oil tankers (specified areas only)

- 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 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 Sa2½ 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)
- 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.
- Previous coat must be dry and free from any contamination

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### 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

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### Substrate temperature and application conditions

- Substrate temperature during application and curing should be between -20°C (-4°F) and 15°C (59°F)
- Ambient temperature during application at -20°C (-4°F) is acceptable; however curing to hardness takes longer and complete cure will be reached when the temperature increases
- Substrate temperature during application and curing should be at least 3°C (37°F) above dew point
- Relative humidity during application and curing should not exceed 85%

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### Galvanized steel

- The surface must be properly prepared, dry, clean and free of any contamination
- The surface should be sufficiently roughened by sweep blasting to achieve a uniform matt appearance
- Sweep blast in accordance with the SSPC SP16 guidelines

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## 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
- Thinner should be added after mixing the components
- Adding too much thinner results in reduced sag resistance

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**Pot life**

7 hours at 10°C (50°F)

Note:

- See ADDITIONAL DATA – Pot life

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**Air spray**

**Recommended thinner**

THINNER 91-92

**Volume of thinner**

0 - 15%, depending on required thickness and application conditions

**Nozzle orifice**

1.5 – 2.0 mm (approx. 0.060 – 0.079 in)

**Nozzle pressure**

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

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**Airless spray**

**Recommended thinner**

THINNER 91-92

**Volume of thinner**

0 - 15%, depending on required thickness and application conditions

**Nozzle orifice**

Approx. 0.53 – 0.74 mm (0.021 – 0.029 in)

**Nozzle pressure**

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

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**Brush/roller**

**Recommended thinner**

No extra thinner is necessary

**Volume of thinner**

Up to 5% THINNER 91-92 can be added if desired

## ADDITIONAL DATA

| Spreading rate and film thickness | |
|---|---|
| **DFT** | **Theoretical spreading rate** |
| 75 µm (3.0 mils) | 7.6 $m^2$/l (305 $ft^2$/US gal) |
| 125 µm (5.0 mils) | 4.6 $m^2$/l (183 $ft^2$/US gal) |
| 160 µm (6.3 mils) | 3.6 $m^2$/l (145 $ft^2$/US gal) |
| 200 µm (8.0 mils) | 2.9 $m^2$/l (114 $ft^2$/US gal) |

Note:

- Max. DFT: DFT of 2000 µm (80.0 mils) may occur occasionally (minor areas) where multiple overlapping is unavoidable (i.e. around scallops, corners, erection joint lines etc.). PPG must be consulted in case of DFT readings fall outside this recommendation.

| Overcoating interval for DFT up to 160 µm (6.3 mils) | | | | | | |
|---|---|---|---|---|---|---|
| **Overcoating with...** | **Interval** | **-15°C (5°F)** | **-5°C (23°F)** | **0°C (32°F)** | **10°C (50°F)** | **15°C (59°F)** |
| itself and recommended topcoats | Minimum | 48 hours | 24 hours | 16 hours | 6 hours | 4 hours |
| | Maximum NOT exposed to direct sunshine | 3 months | 3 months | 3 months | 2 months | 1 month |
| | Maximum exposed to direct sunshine | 2 months | 2 months | 2 months | 1 month | 1 month |

Note:

- Surface should be dry and free from any contamination

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| Curing time for DFT up to 160 µm (6.3 mils) | | | |
|---|---|---|---|
| **Substrate temperature** | **Dry to touch** | **Dry to handle** | **Full cure** |
| -10°C (14°F) | 20 hours | 48 hours | 21 days |
| -5°C (23°F) | 10 hours | 21 hours | 14 days |
| 5°C (41°F) | 5 hours | 10 hours | 9 days |
| 10°C (50°F) | 3 hours | 6 hours | 7 days |
| 15°C (59°F) | 2 hours | 4 hours | 5 days |

Note:

- Adequate ventilation must be maintained during application and curing

| Pot life (at application viscosity) | |
|---|---|
| **Mixed product temperature** | **Pot life** |
| 5°C (41°F) | 10 hours |
| 10°C (50°F) | 7 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

# SIGMAPRIME® 200 LT

## 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.**