# 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

- Alu light, alu yellow, gray, yellow/green, redbrown
- Eggshell

## 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 1999/13/EC, SED: max. 291.0 g/kg<br>max. 397.0 g/l (approx. 3.3 lb/US gal) |
| **Recommended dry film thickness** | See spreading rate tables |
| **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 |
| **Overcoating Interval** | See overcoating tables |
| **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

# SIGMAPRIME® 200 LT

## 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-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)
- 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 (5°F) above dew point
- Relative humidity during application and curing should not exceed 85%

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# SIGMAPRIME® 200 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
- 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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# SIGMAPRIME® 200 LT

**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 – SIGMAPRIME 200 LT | |
|---|---|
| **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.

| Spreading rate and film thickness – SIGMAPRIME 200 LT K | |
|---|---|
| **DFT** | **Theoretical spreading rate** |
| 100 µm (4.0 mils) | 6.0 $m^2$/l (241 $ft^2$/US gal) |
| 125 µm (5.0 mils) | 4.8 $m^2$/l (192 $ft^2$/US gal) |
| 160 µm (6.3 mils) | 3.8 $m^2$/l (153 $ft^2$/US gal) |
| 200 µm (8.0 mils) | 3.0 $m^2$/l (120 $ft^2$/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.

# SIGMAPRIME® 200 LT

| 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)** |
| various two-component epoxy coatings | 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

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

Note:

- 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) | 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

# SIGMAPRIME® 200 LT

## 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.**

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