

SIGMASHIELD™ PRIME LT

DESCRIPTION

Premium dry cargo hold product based on bi-phasic polymer composition delivering excellent Mechanical, Thermal and Corrosion protection

PRINCIPAL CHARACTERISTICS

- 2-pack polymeric epoxy / amine providing kick-start cure and faster return to service
- Excellent anti-corrosive properties with excellent creep resistance
- Excellent abrasion and impact resistance
- Excellent gouging resistance at elevated temperatures

COLOR AND GLOSS LEVEL

- Redbrown, gray
- Eggshell

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 | 64 ± 2% |
| VOC (Supplied) | Directive 2010/75/EU, SED: max. 267.0 g/kg max. 399.0 g/l (approx. 3.3 lb/US gal) |
| Recommended dry film thickness | See spreading rate tables |
| Theoretical spreading rate | 6.4 m ² /l for 100 µm (257 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 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

Substrate conditions

- Surface must be free from grease, salts and any contamination
- 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
- Coated steel; hydrojetted to VIS WJ2L (blasting profile 30 - 75 µm (1.2 - 3.0 mils))

Substrate temperature and application conditions

- Relative humidity during application and curing should not exceed 85%
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- The temperature of the mixed base and hardener should be above 10°C (50°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

Induction time

None

Pot life

5 hours at 10°C (50°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, 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 - 3%, 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.)

Brush/roller

Recommended thinner

No extra thinner is necessary

Volume of thinner

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

Cleaning solvent

THINNER 90-53

ADDITIONAL DATA

| Spreading rate and film thickness | |
|-----------------------------------|---|
| DFT | Theoretical spreading rate |
| 100 µm (4.0 mils) | 6.4 m ² /l (257 ft ² /US gal) |

| Overcoating interval for DFT up to 150 µm (6.0 mils) | | | | | |
|--|----------|------------|------------|-------------|-------------|
| Overcoating with... | Interval | 0°C (32°F) | 5°C (41°F) | 10°C (50°F) | 15°C (59°F) |
| itself, SIGMASHIELD MTC, SIGMASHIELD 420 | Minimum | 16 hours | 10 hours | 6 hours | 4 hours |
| | Maximum | 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 150 µm (6.0 mils)

| Substrate temperature | Dry to touch | Dry to handle | Full cure |
|-----------------------|--------------|---------------|-----------|
| 0°C (32°F) | 8 hours | 17 hours | 12 days |
| 5°C (41°F) | 5 hours | 11 hours | 9 days |
| 10°C (50°F) | 6 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 (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)

| Mixed product temperature | Pot life |
|---------------------------|----------|
| 10°C (50°F) | 5 hours |

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 |
| • 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 |

SIGMASHIELD™ PRIME LT

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