SIGMACOVER™ 630

DESCRIPTION

Two-component, surface-tolerant, high-build polyamine-cured epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- Epoxy mastic
- Surface tolerant coating for lower grade of steel preparation
- Particularly suited as maintenance coating for dry cargo holds, decks and hulls
- General-purpose epoxy buildcoat or finish in protective coating systems, for steel and concrete structures exposed to atmospheric land or marine conditions
- Compatible with various aged coatings
- Overcoatable with most types of coatings
- Excellent corrosion resistance
- Resistant to splash and spillage of a wide range of chemicals
- Good flexibility

COLOR AND GLOSS LEVEL

- Green, gray, redbrown, black, aluminum
- Semi-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	83 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 166.0 g/kg max. 232.0 g/l (approx. 1.9 lb/US gal)
Recommended dry film thickness	60 - 200 µm (2.4 - 8.0 mils) depending on requirements
Theoretical spreading rate	6.6 m^2/l for 125 µm (266 ft^2/US gal for 5.0 mils) 4.2 m^2/l for 200 µm (166 ft^2/US gal for 8.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 9 hours See overcoating tables
Full cure after	7 days
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

SIGMACOVER™ 630

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- Steel; blast cleaned to ISO-Sa2½, for excellent corrosion protection
- Steel; blast cleaned to ISO-Sa2, blasting profile 40 – 70 µm (1.6 – 2.8 mils) or power tool cleaned to ISO-St2 for good corrosion protection
- Shop primed steel; pretreated to SPSS-Pt3
- Coated steel; hydrojetted to VIS WJ2/3L
- Existing sound coating systems; sufficiently roughened, dry and cleaned

Immersion in water with cathodic protection

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 2.8 mils)
- Steel with approved zinc silicate shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
- First coat SIGMACOVER 630 aluminum

Substrate temperature

- Substrate temperature during application and curing should be above 10°C (50°F)
- 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 83:17

- 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

Induction time

None

Pot life

2 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

SIGMACOVER™ 630

Air spray

Recommended thinner
THINNER 91-92

Volume of thinner
5 - 10%, depending on required thickness and application conditions

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 - 5%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.48 – 0.53 mm (0.019 – 0.021 in)

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

Brush/roller

Recommended thinner
THINNER 91-92

Volume of thinner
0 – 5%

ADDITIONAL DATA

Spreading rate and film thickness for brush/roller	
DFT	**Theoretical spreading rate**
60 µm (2.4 mils)	13.8 m^2/l (555 ft^2/US gal)
100 µm (4.0 mils)	8.3 m^2/l (333 ft^2/US gal)

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

SIGMACOVER™ 630

Spreading rate and film thickness for airless spray	
DFT	**Theoretical spreading rate**
125 µm (5.0 mils)	6.6 m^2/l (266 ft^2/US gal)
200 µm (8.0 mils)	4.2 m^2/l (166 ft^2/US gal)

Overcoating interval for DFT up to 150 µm (6.0 mils)					
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
itself	Minimum	20 hours	9 hours	5 hours	3 hours
	Maximum	12 months	9 months	6 months	3 months
various two-component epoxy coatings	Minimum	20 hours	9 hours	5 hours	3 hours
	Maximum	6 months	3 months	1 month	1 month

Notes:
- Surface should be dry and free from any contamination
- For polyurethane paints the minimum overcoating time should be raised with 100%

Overcoating interval for DFT up to 150 µm (6.0 mils)					
Overcoating with...	**Interval**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**	**40°C (104°F)**
various alkyds	Minimum	24 hours	16 hours	8 hours	5 hours
	Maximum	21 days	10 days	7 days	3 days

Notes:
- After exceeding of the maximum interval, glossy finishes require a corresponding undercoat
- Surface should be dry and free from any contamination
- Best intercoat adhesion occurs when the subsequent coat is applied before the preceding coat is fully cured
- If this time is exceeded it may be necessary to roughen the surface

Curing time for DFT up to 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
10°C (50°F)	14 hours	20 hours	15 days
20°C (68°F)	6 hours	9 hours	7 days
30°C (86°F)	4 hours	5 hours	4 days
40°C (104°F)	2 hours	3 hours	48 hours

Note: Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

SIGMACOVER™ 630

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
15°C (59°F)	3 hours
20°C (68°F)	2 hours
30°C (86°F)	1 hour
40°C (104°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

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.

SIGMACOVER™ 630

LIMITATIONS OF LIABILITY