



SIGMACOVER 630

5 pages

September 2009
Revision of November 2007

DESCRIPTION

two component surface tolerant high build polyamine cured epoxy primer/
coating

PRINCIPAL CHARACTERISTICS

- surface tolerant coating for lower grade of steel preparation
- particularly suited as maintenance coating for dry cargo holds, decks and hulls
- general purpose epoxy build coat 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

COLOURS AND GLOSS

green, grey, redbrown, black, aluminium - semigloss

BASIC DATA AT 20°C

(1 g/cm³ = 8.25 lb/US gal; 1 m²/l = 40.7 ft²/US gal)
(data for mixed product)

Mass density	1.4 g/cm ³
Volume solids	83 ± 2%
VOC (supplied)	max. 166 g/kg (Directive 1999/13/EC, SED) max. 232 g/l (approx. 1.9 lb/gal)
Recommended dry film thickness	60 - 100 µm for brush/roller 125 - 200 µm for airless spray
Theoretical spreading rate	6.6 m ² /l for 125 µm, 4.1 m ² /l for 200 µm
Touch dry after	6 hours
Overcoating interval	min. 9 hours * max. 9 months *
Curing time	7 days

(data for components)

Shelf life (cool and dry place)

at least 12 months
* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- **for atmospheric exposure conditions:**
 - steel; blast cleaned to ISO-Sa2½ for excellent corrosion protection
 - steel; blast cleaned to ISO-Sa2, blasting profile 40 - 70 µm or power tool cleaned to ISO-St2 for good corrosion protection
 - shop primed steel; pretreated to SPSS-Pt3
 - coated steel; hydrojetted to VIS WJ2/3 L
 - existing sound epoxy coating systems and most sound alkyd coating systems; sufficiently roughened, dry and free from any contamination

SIGMACOVER 630

September 2009

- **for immersion in sea water:**
(resistant to Cathodic Protection in systems)
 - steel; blast cleaned to ISO-Sa2½, blasting profile 40 - 70 µm
 - steel with approved zinc silicate shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
 - **first coat SigmaCover 630 aluminium**
- substrate temperature should be above 10°C and at least 3°C 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, otherwise extra solvent may be required to obtain application viscosity
- too much solvent 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 *
 * see additional data

AIRLESS SPRAY

Recommended thinner
 Volume of thinner
 Nozzle orifice
 Nozzle pressure

Thinner 91-92
 0 - 5%, depending on required thickness and application conditions
 approx. 0.48 - 0.53 mm (= 0.019 - 0.021 in)
 15 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner
 Volume of thinner
 Nozzle orifice
 Nozzle pressure

Thinner 91-92
 5 - 10%, depending on required thickness and application conditions
 1.8 - 2 mm
 0.3 - 0.4 MPa (= approx. 3 - 4 bar; 43 - 57 p.s.i.)

BRUSH/ROLLER

Recommended thinner
 Volume of thinner

Thinner 91-92
 0 - 5%

CLEANING SOLVENT

Thinner 90-53

SAFETY PRECAUTIONS

for paint and recommended thinners see safety 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 vapour as well as contact between the wet paint and exposed skin or eyes

SIGMACOVER 630

September 2009

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m ² /l	13.8	6.6	8.3	4.1
dft in µm for airless spray		125		200
dft in µm for brush/roller	60		100	

max. dft when brushing: 100 µm

Overcoating table for dft up to 150 µm

with various two pack epoxy coatings

with polyurethanes

with itself

with various epoxy- and polyurethane coatings

substrate temperature	10°C	20°C	30°C	40°C
minimum interval	20 hours	9 hours	5 hours	3 hours
minimum interval	48 hours	24 hours	12 hours	6 hours
maximum interval	12 months	9 months	6 months	3 months
maximum interval	6 months	3 months	1 month	1 month

- surface should be dry and free from any contamination

Overcoating table for dft up to 150 µm

with various alkyds

substrate temperature	10°C	20°C	30°C	40°C
minimum interval	24 hours	16 hours	8 hours	5 hours
maximum interval	21 days	10 days	7 days	3 days

- 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

SIGMACOVER 630

September 2009

Curing table for dft up to 150 µm

substrate temperature	touch dry	dry to handle	full cure
10°C	14 hours	20 hours	15 days
20°C	6 hours	9 hours	7 days
30°C	4 hours	5 hours	4 days
40°C	2 hours	3 hours	2 days

- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)

Pot life (at application viscosity)

15°C	3 hours
20°C	2 hours
30°C	1 hour
40°C	0.5 hour

Worldwide availability

Whilst it is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis, 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

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Cleaning of steel and removal of rust	see information sheet 1490

SIGMACOVER 630

September 2009

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Sigma Coatings products made by PPG Protective & Marine Coatings, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

PPG Protective & Marine Coatings has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. PPG Protective & Marine Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development.

This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product.

The English text of this document shall prevail over any translation thereof.

	PDS	7430
179099	green	4199052200
179101	grey	5177052200
179103	redbrown	6179052200
179105	black	8000002200
179106	aluminium	9000002200
179583	RAL 6002	6002262200
179586	offwhite	7001002200