

SIGMACOVER 690
(SIGMACOVER ALUPRIMER)

4 pages

October 2009
Revision of September 2005

DESCRIPTION two component high solids aluminium pigmented polyamine cured modified epoxy primer/coating

PRINCIPAL CHARACTERISTICS

- primer/coating designed for maintenance
- low VOC
- good flow properties
- self priming coating tolerant to lower grades of steel preparation
- compatible with most aged good adhering coatings
- good recoatability with epoxy- and polyurethane paints
- good curing at temperatures down to +5°C
- good impact and abrasion resistance
- if the substrate temperature drops below +5 till 0°C, the wintergrade type should be used (see 7414WG)

COLOURS AND GLOSS aluminium light and dark - 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	1.3 g/cm ³
Volume solids	90 ± 2%
VOC (supplied)	max. 150 g/kg (Directive 1999/13/EC, SED) max. 198 g/l (approx. 1.7 lb/gal)
Recommended dry film thickness	75 - 125 µm * depending on system and application method
Theoretical spreading rate	12 m ² /l for 75 µm, 7.2 m ² /l for 125 µm
Touch dry after	4 hours
Overcoating interval	min. 12 hours * max. 4 months *
Curing time	5 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; power tool cleaned to ISO-St2 or blast cleaned to ISO-Sa2 for good corrosion protection
 - steel with approved shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt2
 - existing sound coating systems; sufficiently roughened, dry and cleaned
- **for immersion in water:**
 - steel; blast cleaned to ISO-Sa2½
 - steel with approved shop primer; sweep blasted to SPSS-Ss or power tool cleaned to SPSS-Pt3
- substrate temperature should be above 5°C and at least 3°C above dew point

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 77.5 : 22.5

- 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

3 hours at 20°C *
* see additional data

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 MPa (= approx. 150 bar; 2130 p.s.i.)

AIR SPRAY

Recommended thinner

Thinner 91-92

Volume of thinner

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

Nozzle orifice

1.8 - 2 mm

Nozzle pressure

0.3 - 0.4 MPa (= approx. 3 - 4 bar; 43 - 57 p.s.i.)

BRUSH/ROLLER

Recommended thinner

Thinner 91-92

Volume of thinner

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

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m ² /l	12.0	9.0	7.2
dft in µm	75	100	125

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Overcoating table for most epoxy and polyurethane paints *

substrate temperature	5°C	10°C	15°C	20°C	30°C	40°C
minimum interval	48 hours	36 hours	20 hours	12 hours	8 hours	6 hours
maximum interval	6 months	6 months	6 months	4 months	3 months	3 months

* for polyurethane paints the minimum overcoating time should be raised with 50%

- surface should be dry and free from any contamination

Curing table for dft up to 125 µm

substrate temperature	touch dry	dry to handle	full cure
5°C	16 hours	48 hours	10 days
10°C	9 hours	36 hours	7 days
15°C	6 hours	20 hours	6 days
20°C	4 hours	12 hours	5 days
30°C	3 hours	8 hours	4 days
40°C	2 hours	6 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	5 hours
20°C	3 hours
30°C	2 hours
40°C	1 hour
50°C	1 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.

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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

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.

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179333	light	0200002200