

**SIGMADUR 550**

4 pages

May 2012  
Revision of December 2010**Description**

two component aliphatic acrylic polyurethane finish

**PRINCIPAL CHARACTERISTICS**

- unlimited recoatable
- excellent resistance to atmospheric exposure conditions
- excellent colour and gloss retention
- non-chalking, non-yellowing
- cures at temperatures down to -5°C
- resistant to splash of mineral and vegetable oils, paraffins, aliphatic petroleum products and mild chemicals
- can be recoated even after long atmospheric exposure
- good application properties

**COLOURS AND GLOSS**

white and various other colours (see also the SigmaCare Shade Card of PPG Protective &amp; Marine Coatings) – gloss

**BASIC DATA AT 20 °C**(1 g/cm<sup>3</sup> = 8.35 lb/US gal; 1 m<sup>2</sup>/l = 40.7 ft<sup>2</sup>/US gal)

(data for mixed product)

Mass density	1.3 g/cm <sup>3</sup>
Volume solids	55% ± 2%
VOC (Directive 1999/13/EC, SED)	max. 334 g/kg (Directive 1999/13/EC, SED)
VOC (UK PG 6/23(92) appendix 3)	max. 430 g/l (approx. 3.6 lb/gal)
Recommended dry film thickness	50 - 60 µm depending on system
Theoretical spreading rate	11.0 m <sup>2</sup> /l for 50 µm *
Touch dry after	1 hour at 20 °C
Overcoating interval	min. 6 hours * max. unlimited
Full cure after	4 days * at 20 °C

(data for components)

Shelf life (cool and dry place)

at least 24 months  
\* see additional data**RECOMMENDED  
SUBSTRATE CONDITIONS  
AND TEMPERATURES**

- previous coat; (epoxy or polyurethane) dry and free from any contamination and sufficiently roughened if necessary
- during application and curing a substrate temperature down to -5°C is acceptable provided the substrate is dry and free from ice
- substrate temperature should be at least 3°C above dew point
- maximum relative humidity during application and curing is 85%
- premature exposure to early condensation and rain may cause colour and gloss change

# SIGMADUR 550

May 2012

## INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 88 : 12

- the temperature of the mixed base and hardener should preferably be above 10°C, otherwise extra solvent may be required to obtain application viscosity
- thinner should be added after mixing the components
- too much solvent results in reduced sag resistance

Induction time

none

Pot life

5 hours at 20 °C \*

\* see additional data

## AIR SPRAY

Recommended thinner

Thinner 21-06

Volume of thinner

3 - 5%, depending on required thickness and application conditions

Nozzle orifice

1.0 - 1.5 mm

Nozzle pressure

0.3 - 0.4 MPa (= approx. 3 - 4 bar; 44 - 58 p.s.i.)

## AIRLESS SPRAY

Recommended thinner

Thinner 21-06

Volume of thinner

3 - 5%, depending on required thickness and application conditions

Nozzle orifice

approx. 0.44 - 0.49 mm (= 0.017 - 0.019 in)

Nozzle pressure

20 MPa (= approx. 200 bar; 2901 p.s.i.)

## BRUSH/ROLLER

Recommended thinner

Thinner 21-06

Volume of thinner

0 - 5%

## CLEANING SOLVENT

Thinner 90-53

## ADDITIONAL DATA

### Film thickness and spreading rate

theoretical spreading rate m <sup>2</sup> /l	11	9.2
dft in µm	50	60

### Overcoating table for SigmaDur products

substrate temperature	-5°C	0°C	10°C	20°C	30°C	40°C
minimum interval	24 hours	16 hours	8 hours	6 hours	5 hours	3 hours
maximum interval	unlimited					

- surface should be dry and free from any contamination

# SIGMADUR 550

May 2012

## Curing

### Curing table

substrate temperature	dry to handle	full cure
-5°C	24 hours	15 days
0°C	16 hours	11 days
10°C	8 hours	6 days
20°C	6 hours	4 days
30°C	5 hours	3 days
40°C	3 hours	2 days

- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)
- premature exposure to early condensation and rain may cause colour and gloss change

### Pot life (at application viscosity)

10 °C	7 hours
20 °C	5 hours
30 °C	3 hours
40 °C	2 hours

## Worldwide availability

Whilst it is always the aim of Sigma 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

Conversion labels	see information sheet 1410
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
Relative humidity - substrate temperature - air temperature	see information sheet 1650

## 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
  - contains a toxic polyisocyanate curing agent
  - avoid at all times inhalation of aerosol spraymist

# SIGMADUR 550

May 2012

## 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.

## LIMITATIONS OF LIABILITY

**IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT.**

The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk.

PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings products are maintained at [www.ppgpmc.com](http://www.ppgpmc.com).

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

	PDS	7537
238761	white	7000001400
238763	white	7000002200