

SIGMADUR™ 540

DESCRIPTION

Two-component, high-gloss, VOC-compliant epoxy acrylic finish

PRINCIPAL CHARACTERISTICS

- Non-isocyanate
- Excellent gloss and color retention
- Non-chalking, non-yellowing
- Long pot life but quick-drying
- Can be recoated even after long exposure periods

COLOR AND GLOSS LEVEL

- Wide color range
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	54 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 324.0 g/kg UK PG 6/23(92) Appendix 3: max. 411.0 g/l (approx. 3.4 lb/US gal)
Recommended dry film thickness	50 - 60 µm (2.0 - 2.4 mils) depending on system
Theoretical spreading rate	10.8 m ² /l for 50 µm (433 ft ² /US gal for 2.0 mils)
Dry to touch	2 hours
Full cure after	7 days
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 12 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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Compatible previous coat must be dry and free from any contamination
- Surface of previous coat should be sufficiently roughened if necessary

SIGMADUR™ 540

Substrate temperature

- Substrate temperature during application and curing should be above 5°C (41°F)
 - Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
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INSTRUCTIONS FOR USE**Mixing ratio by volume: base to hardener 89.5:10.5**

- Adding too much thinner results in reduced sag resistance
 - 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
 - If required, thinner should be added after mixing the components
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Induction time

None

Pot life

6 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray**Recommended thinner**

THINNER 91-92

Volume of thinner

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

Nozzle orifice

1.0 - 1.5 mm (approx. 0.040 - 0.060 in)

Nozzle pressure

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

SIGMADUR™ 540

Airless spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.38 – 0.46 mm (0.015 – 0.018 in)

Nozzle pressure

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

Note: SIGMADUR 540 can be applied to an industrial finish using standard airless spray equipment with recommended pressure and tip sizes. In order to achieve the optimum finish and cosmetic appearance, the product may be thinned by 10% and applied using an air-assisted airless spray gun set up with a smaller tip size of 0.28 – 0.38 mm (0.011 – 0.015 in)

Brush/roller

Recommended thinner

THINNER 91-92

Volume of thinner

0 – 5%

Cleaning solvent

THINNER 91-92

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
50 µm (2.0 mils)	10.8 m ² /l (433 ft ² /US gal)
60 µm (2.4 mils)	9.0 m ² /l (361 ft ² /US gal)

Overcoating interval for DFT up to 50 µm (2.0 mils)					
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)
itself	Minimum	24 hours	16 hours	8 hours	6 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Note: Surface should be dry and free from any contamination

SIGMADUR™ 540

Curing time for DFT up to 50 µm (2.0 mils)

Substrate temperature	Dry to handle	Full cure
5°C (41°F)	22 hours	14 days
10°C (50°F)	16 hours	12 days
20°C (68°F)	10 hours	7 days
30°C (86°F)	6 hours	4 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)	10 hours
20°C (68°F)	6 hours
30°C (86°F)	3 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
- Avoid at all times inhalation of aerosol spray mist

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
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650



SIGMADUR™ 540

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