

SIGMADUR™ 541

DESCRIPTION

Two-component, non-isocyanate epoxy acrylic finish

PRINCIPAL CHARACTERISTICS

- Non-isocyanate
- Good gloss and color retention
- Non-yellowing
- Long pot life but quick-drying
- Good application properties, also without thinning

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	1.4 kg/l (12.0 lb/US gal)
Volume solids	57 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 289.0 g/kg UK PG 6/23(92) Appendix 3: max. 417.0 g/l (approx. 3.5 lb/US gal)
Recommended dry film thickness	50 - 60 µm (2.0 - 2.4 mils) depending on system
Theoretical spreading rate	11.4 m ² /l for 50 µm (457 ft ² /US gal for 2.0 mils)
Dry to touch	3 hours
Full cure after	7 days
Shelf life	Base: at least 24 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



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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 91:9 (10:1)

- 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

8 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Air spray

Recommended thinner

THINNER 91-92

Volume of thinner

0 - 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.)

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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.)

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)	11.4 m ² /l (457 ft ² /US gal)
60 µm (2.4 mils)	9.5 m ² /l (381 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	18 hours	8 hours	4 hours	2 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited

Note: Surface should be dry and free from any contamination

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Curing time for DFT up to 50 µm (2.0 mils)		
Substrate temperature	Dry to handle	Full cure
5°C (41°F)	24 hours	14 days
10°C (50°F)	18 hours	12 days
20°C (68°F)	12 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)	11 hours
20°C (68°F)	8 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



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