PPG 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

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 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

Induction time

0 minute

Note:

- No induction time required

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%

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

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

- See Safety Data Sheet and product label for complete safety and precaution requirements
- 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

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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

- Information sheet | Explanation of product data sheets

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