

PPG SIGMADUR™ CLEARCOAT

DESCRIPTION

Two-component, aliphatic clear acrylic polyurethane gloss finish

PRINCIPAL CHARACTERISTICS

- Suitable for application over aluminum pigmented polyurethanes
- Excellent gloss retention
- Tough and abrasion resistant
- Resistant to splash of mineral and vegetable oils, white spirit, paraffins, aliphatic petroleum products and mild chemicals
- Reduced sensitivity to early condensation and rain
- Can be recoated even after long atmospheric exposure
- Cures at temperatures down to -5°C (23°F)
- Suitable for use on stainless, non-ferrous materials not subject to immersion

COLOR AND GLOSS LEVEL

- Clear
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.0 kg/l (8.3 lb/US gal)
Volume solids	50 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 463.0 g/kg UK PG 6/23(92) Appendix 3: max. 450.0 g/l (approx. 3.8 lb/US gal)
Recommended dry film thickness	35 - 50 µm (1.4 - 2.0 mils) depending on system
Theoretical spreading rate	14.3 m ² /l for 35 µm (573 ft ² /US gal for 1.4 mils)
Dry to touch	1 hour
Overcoating Interval	Minimum: 12 hours Maximum: Unlimited
Full cure after	7 days
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 24 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

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Atmospheric exposure conditions

- Previous coat (polyurethane) must be dry and free from any contamination
 - Stainless steel, non-ferrous metal should be sufficiently roughened by light sanding followed by degreasing with solvent or cleaner
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Substrate temperature and application conditions

- Substrate temperature during application at -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
 - Substrate temperature during application and curing down to -5°C (23°F) is acceptable
 - Relative humidity during application and curing should not exceed 85%
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INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 5.67:1

- The temperature of the mixed base and hardener should be above 10°C (50°F), otherwise extra thinner may be required to obtain application viscosity
 - Adding too much thinner results in reduced sag resistance and slower cure
 - Thinner should be added after mixing the components
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Pot life

4 hours at 20°C (68°F)

Note:

- See ADDITIONAL DATA – Pot life
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Air spray

Recommended thinner

THINNER 21-06

Volume of thinner

10 - 12%, 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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Brush/roller

Recommended thinner

THINNER 21-06

Volume of thinner

0 – 5%

Cleaning solvent

- THINNER 21-06

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
35 µm (1.4 mils)	14.3 m ² /l (573 ft ² /US gal)
50 µm (2.0 mils)	10.0 m ² /l (401 ft ² /US gal)

Overcoating interval for DFT up to 35 µm (1.4 mils)							
Overcoating with...	Interval	-5°C (23°F)	0°C (32°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	48 hours	30 hours	16 hours	9 hours	6 hours	4 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Note:

- Surface should be dry and free from any contamination



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Curing time for DFT up to 35 µm (1.4 mils)		
Substrate temperature	Dry to handle	Full cure
-5°C (23°F)	48 hours	20 days
0°C (32°F)	24 hours	16 days
10°C (50°F)	12 hours	10 days
20°C (68°F)	6 hours	7 days
30°C (86°F)	5 hours	5 days
40°C (104°F)	3 hours	3 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)	6 hours
20°C (68°F)	4 hours
30°C (86°F)	3 hours
40°C (104°F)	2 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
- Contains a polyisocyanate curing agent

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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