SIGMADUR™ 550 H

DESCRIPTION

Two-component, high solids, high-build aliphatic acrylic polyurethane finish

PRINCIPAL CHARACTERISTICS

- Excellent resistance to atmospheric exposure conditions
- Good color and gloss retention
- Cures at temperatures down to -5°C (23°F)
- 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 by airless, brush and roller
- High film build-up to 150 µm (6.0 mils) for one coat
- Can be applied direct to metal
- Drying and curing times can be reduced significantly using PPG 866M ACCELERATOR

COLOR AND GLOSS LEVEL

- Standard and custom colors
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal)
Volume solids	70 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 220.0 g/kg EPA Method 24: 238.0 g/ltr (2.0 lb/USgal) China GB 30981-2020 (tested) 317.0 g/l (approx. 2.6 lb/gal)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils) depending on system
Theoretical spreading rate	14.0 m^2/l for 50 µm (561 ft^2/US gal for 2.0 mils) 9.3 m^2/l for 75 µm (374 ft^2/US gal for 3.0 mils)
Overcoating Interval	Minimum: 8 hours Maximum: Unlimited
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

Substrate conditions

- Steel; blast cleaned to ISO-Sa2½, blasting profile 40 – 70 µm (1.6 – 1.8 mils), or powertool cleaned to ISO-St3
- Compatible previous coat must be dry and free from any contamination

Substrate temperature and application conditions

- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Substrate temperature during application and curing down to -5°C (23°F) is acceptable; provided the substrate is free from ice and dry
- Relative humidity during application and curing should not exceed 85%
- Premature exposure to early condensation and rain my cause color and gloss change

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 87:13

- Do not thin more than is required by appropriate application property
- Adding too much thinner results in reduced sag resistance
- Thinner should be added after mixing the components

Induction time

None

Air spray

Recommended thinner

THINNER 21-06

Volume of thinner

10 - 15%, 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 21-06

Volume of thinner
0 - 10%, depending on required thickness and application conditions

Nozzle orifice
Approx. 0.43 – 0.48 mm (0.017 – 0.019 in)

Nozzle pressure
20.0 MPa (approx. 200 bar; 2901 p.s.i.)

Brush/roller

Recommended thinner
THINNER 21-06

Volume of thinner
0 – 5%

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
50 µm (2.0 mils)	14.0 m^2/l (561 ft^2/US gal)
75 µm (3.0 mils)	9.3 m^2/l (374 ft^2/US gal)
100 µm (4.0 mils)	7.0 m^2/l (281 ft^2/US gal)
150 µm (6.0 mils)	4.7 m^2/l (187 ft^2/US gal)

Overcoating interval for DFT up to 150 µm (6.0 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	36 hours	24 hours	16 hours	8 hours	4 hours	3 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Overcoating interval with PPG 866M ACCELERATOR for DFT up to 150 µm (6.0 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	28 hours	20 hours	12 hours	6 hours	3 hours	1.5 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 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-5°C (23°F)	24 hours	40 hours	22 days
0°C (32°F)	15 hours	30 hours	18 days
10°C (50°F)	5 hours	20 hours	10 days
20°C (68°F)	3 hours	12 hours	7 days
30°C (86°F)	2 hours	6 hours	4 days
40°C (104°F)	1 hour	3 hours	3 days

Curing time with PPG 866M ACCELERATOR for DFT up to 150 µm (6.0 mils)			
Substrate temperature	**Dry to touch**	**Dry to handle**	**Full cure**
-5°C (23°F)	21 hours	32 hours	18 days
0°C (32°F)	12 hours	24 hours	15 days
10°C (50°F)	4 hours	15 hours	8 days
20°C (68°F)	2 hours	8 hours	6 days
30°C (86°F)	1.5 hours	4 hours	3 days
40°C (104°F)	1 hour	2 hours	48 hours

Notes:
- Adequate ventilation must be maintained during application and curing
- Premature exposure to early condensation and rain may cause color and gloss change

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	4 hours
20°C (68°F)	2.5 hours
30°C (86°F)	1.5 hours
40°C (104°F)	1 hour

Note: Mixing this product with PPG 866M ACCELERATOR will not affect the pot life

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 toxic polyisocyanate curing agent
- Avoid at all times inhalation of aerosol spray mist

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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

• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411

WARRANTY

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