

# 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)
Recommended dry film thickness	50 - 150 µm (2.0 - 6.0 mils) depending on system
Theoretical spreading rate	14.0 m <sup>2</sup> /l for 50 µm (561 ft <sup>2</sup> /US gal for 2.0 mils) 9.3 m <sup>2</sup> /l for 75 µm (374 ft <sup>2</sup> /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 – 2.8 mils) or power tool cleaned to ISO-St3
  - Compatible previous coat must be dry and free from any contamination
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### 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 may cause color and gloss change
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## INSTRUCTIONS FOR USE

### **Mixing ratio by volume: base to hardener 6.69:1**

- 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
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### **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%

**Cleaning solvent**

- THINNER 90-53

**ADDITIONAL DATA**

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



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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	2 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 must be dry and free from any contamination

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



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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 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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## WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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