

# SIGMADUR™ 550

## DESCRIPTION

Two-component, aliphatic acrylic polyurethane finish

## PRINCIPAL CHARACTERISTICS

- Unlimited recoatable
- Excellent resistance to atmospheric exposure conditions
- Excellent color and gloss retention
- Non-chalking, non-yellowing
- 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

## COLOR AND GLOSS LEVEL

- White and various other colors (see also SIGMACARE shade card)
- Gloss

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
<b>Number of components</b>	Two
<b>Mass density</b>	1.3 kg/l (10.8 lb/US gal)
<b>Volume solids</b>	55 ± 2%
<b>VOC (Supplied)</b>	Directive 1999/13/EC, SED: max. 334.0 g/kg max. 430.0 g/l (approx. 3.6 lb/US gal) EUR Directive: 2004/42/IIA(j)(500) 459 g/l)
<b>Recommended dry film thickness</b>	50 - 60 µm (2.0 - 2.4 mils) depending on system
<b>Theoretical spreading rate</b>	11.0 m <sup>2</sup> /l for 50 µm (441 ft <sup>2</sup> /US gal for 2.0 mils)
<b>Dry to touch</b>	1 hour
<b>Overcoating Interval</b>	Minimum: 6 hours Maximum: Unlimited
<b>Full cure after</b>	4 days
<b>Shelf life</b>	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

- Previous coat (epoxy or polyurethane) must be dry and free from any contamination
  - Previous coat: surface should be sufficiently roughened if necessary
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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 should be at least 3°C (5°F) above dew point
  - Relative humidity during application and curing should not exceed 85%
  - Should condensation on the surface occur during, or soon after application, this could result in color and gloss change
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## INSTRUCTIONS FOR USE

### Mixing ratio by volume: base to hardener 88:12

- 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
  - Thinner should be added after mixing the components
  - Adding too much thinner results in reduced sag resistance
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### Induction time

None

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### Pot life

5 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**

3 - 5%, 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

3 - 5%, 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)	11.0 m <sup>2</sup> /l (441 ft <sup>2</sup> /US gal)
60 µm (2.4 mils)	9.2 m <sup>2</sup> /l (368 ft <sup>2</sup> /US gal)

Overcoating interval for DFT up to 50 µm (2.0 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	24 hours	16 hours	8 hours	6 hours	5 hours	3 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 60 µm (2.4 mils)		
Substrate temperature	Dry to handle	Full cure
-5°C (23°F)	24 hours	15 days
0°C (32°F)	16 hours	11 days
10°C (50°F)	8 hours	6 days
20°C (68°F)	6 hours	4 days
30°C (86°F)	5 hours	3 days
40°C (104°F)	3 hours	48 hours

#### Notes:

- Adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)
- 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)	7 hours
20°C (68°F)	5 hours
30°C (86°F)	3 hours
40°C (104°F)	2 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
- Contains a toxic polyisocyanate curing agent
- 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.

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## 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
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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