

SIGMADUR™ 188

OVERVIEW

- Place of origin: Indonesia
- Gloss level: Gloss
- Dry to touch: 1 hours
- Number of components: 2
- Color: White and black, colors available request

PRODUCT DETAIL

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)
- Tough and abrasion resistant
- 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 black, colors available request
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.2 g/cm ³
Volume solids	56 ± 2%
VOC (Supplied)	3.3 lb/us gal – 398 g/L
Recommended dry film thickness	50 - 60 µm depending on system
Theoretical spreading rate	11.0 m ² /l for 50 µm (441 ft ² /US gal for 2.0 mils)
Dry to touch	1 hour
Overcoating Interval	Minimum: 6 hours Maximum: Unlimited

Full cure after	4 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

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

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

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

Induction time: None

Pot life: 5 hours at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

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.)

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)	11.2 m ² /l (441 ft ² /US gal)
60 µm (2.4 mils)	9.3 m ² /l (368 ft ² /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

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	2 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)	6 hours
20°C (68°F)	4 hours
30°C (86°F)	3 hours

40°C (104°F)	2 hours
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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.