

# 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<br>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 m²/l for 35 µm (573 ft²/US gal for 1.4 mils)   |
| Dry to touch                   | 1 hour  |
| Overcoating Interval           | Minimum: 12 hours<br>Maximum: Unlimited   |
| Full cure after                | 7 days  |
| Shelf life                     | Base: at least 36 months when stored cool and dry<br>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 85:15

- 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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### Induction time

None

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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 <sup>2</sup> /l (573 ft <sup>2</sup> /US gal) |
| 50 µm (2.0 mils) | 10.0 m <sup>2</sup> /l (401 ft <sup>2</sup> /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

### 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 (please refer to INFORMATION SHEETS 1433 and 1434)

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| 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

- 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.

## 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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