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)

<table>
<thead>
<tr>
<th>Data for mixed product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of components</td>
</tr>
<tr>
<td>Mass density</td>
</tr>
<tr>
<td>Volume solids</td>
</tr>
<tr>
<td>VOC (Supplied)</td>
</tr>
<tr>
<td>Recommended dry film thickness</td>
</tr>
<tr>
<td>Theoretical spreading rate</td>
</tr>
<tr>
<td>Dry to touch</td>
</tr>
<tr>
<td>Overcoating Interval</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Full cure after</td>
</tr>
<tr>
<td>Shelf life</td>
</tr>
</tbody>
</table>

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.)
SIGMADUR™ 550

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

<table>
<thead>
<tr>
<th>Spreading rate and film thickness</th>
<th>Theoretical spreading rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT</td>
<td></td>
</tr>
<tr>
<td>50 µm (2.0 mils)</td>
<td>11.0 m²/l (441 ft²/US gal)</td>
</tr>
<tr>
<td>60 µm (2.4 mils)</td>
<td>9.2 m²/l (368 ft²/US gal)</td>
</tr>
</tbody>
</table>

Overcoating interval for DFT up to 50 µm (2.0 mils)

<table>
<thead>
<tr>
<th>Overcoating with...</th>
<th>Interval</th>
<th>-5°C (23°F)</th>
<th>0°C (32°F)</th>
<th>10°C (50°F)</th>
<th>20°C (68°F)</th>
<th>30°C (86°F)</th>
<th>40°C (104°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>itself</td>
<td>Minimum</td>
<td>24 hours</td>
<td>16 hours</td>
<td>8 hours</td>
<td>6 hours</td>
<td>5 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
</tr>
</tbody>
</table>

Note: Surface should be dry and free from any contamination
Curing time for DFT up to 60 µm (2.4 mils)

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Dry to handle</th>
<th>Full cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5°C (23°F)</td>
<td>24 hours</td>
<td>15 days</td>
</tr>
<tr>
<td>0°C (32°F)</td>
<td>16 hours</td>
<td>11 days</td>
</tr>
<tr>
<td>10°C (50°F)</td>
<td>8 hours</td>
<td>6 days</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>6 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>5 hours</td>
<td>3 days</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>3 hours</td>
<td>48 hours</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Mixed product temperature</th>
<th>Pot life</th>
</tr>
</thead>
<tbody>
<tr>
<td>10°C (50°F)</td>
<td>7 hours</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>5 hours</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>3 hours</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

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
- EXPLANATION TO PRODUCT DATA SHEETS
- SAFETY INDICATIONS
- SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD
- SAFE WORKING IN CONFINED SPACES
- DIRECTIVES FOR VENTILATION PRACTICE
- RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE

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