Anti-Graffiti Clear Gloss

857-05600P-1582

Product Description
Designed for both exterior and internal use, this powder coating offers excellent corrosion and superdurable weathering resistance, exhibits exceptional smoothness, and has a high hardness.

Particularly formulated for use in urban areas, such as street furniture, signs, etc., the coating can be cleaned using xylene, acetone, trichloroethylene or a proprietary graffiti remover. Aerosol paints and marker pens can be removed without staining or damaging the underlying coating.

The use of the high gloss clear system can either be used without a base colour layer, to protect the underlying substrate without obscuring it; OR, the clear lacquer can be used on a coloured base - tests have shown that the base neither needs to be super-durable nor an anti-graffiti product. This gives the coater the option to convert any colour into a 3 year Florida system with full anti-graffiti properties without the need to stock another range of colours, so reducing inventory.

Key Benefits
- Anti-Graffiti
- Excellent Hardness
- Superdurable weathering resistance
- Excellent clarity
- Exceptional smoothness

Powder Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>Thermosetting hydroxyl functional polyester cured with a multifunctional curing agent.</td>
</tr>
<tr>
<td>Application</td>
<td>Corona electrostatic and Tribostatic spray.</td>
</tr>
<tr>
<td>Coating Thickness (DFT)</td>
<td>General recommendation is 60-100 microns (μm), with a minimum thickness of 60 μm.</td>
</tr>
<tr>
<td>Gloss (ISO 2813)</td>
<td>Gloss (min &gt;90 GU)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.21 g/cm³</td>
</tr>
<tr>
<td>Coverage</td>
<td>Up to 14 m²/kg at 60 microns film thickness.</td>
</tr>
<tr>
<td>Storage &amp; Shelf Life</td>
<td>When stored in a cool (&lt;20°C), dry environment: 12 months.</td>
</tr>
<tr>
<td>Curing Schedule</td>
<td>15 minutes at 200 Celsius (object temperature)</td>
</tr>
<tr>
<td></td>
<td>Full cure at 200°C is critical to achieve full surface properties</td>
</tr>
</tbody>
</table>

Pretreatment
To ensure maximum adhesion the substrate must be thoroughly clean, free from grease, oil, rust, mill scale or any other contaminant. Cleaning may be carried out either by shot blasting, solvent or chemical degreasering. For applications where high corrosion or chemical resistance is required the substrate should be chemically treated prior to powder coating, typically:

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous substrates</td>
<td>iron or zinc phosphate</td>
</tr>
<tr>
<td>Zinc coated steel</td>
<td>zinc phosphate or chromate conversion</td>
</tr>
<tr>
<td>Aluminium</td>
<td>chromate conversion</td>
</tr>
</tbody>
</table>

Mechanical Tests
Unless otherwise specified, all tests were carried out under laboratory conditions on 0.8mm degreased and zinc phosphate steel panels. A powder coating DFT of 60-70 microns was used.

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>ISO 2815 Buchholtz Indentation &gt;85</td>
</tr>
<tr>
<td>Flexibility</td>
<td>ISO 1519 Cylindrical Mandrel Pass &gt;3mm</td>
</tr>
<tr>
<td>Adhesion</td>
<td>ISO 2409 2mm Crosshatch Pass G10</td>
</tr>
<tr>
<td>Cupping</td>
<td>ISO 1520 Erichsen Pass &gt;4mm</td>
</tr>
<tr>
<td>Scratch</td>
<td>BS3900: Part E2 2kg: Pass</td>
</tr>
<tr>
<td>Chip</td>
<td>Nut Fall Test (NEN 5335) Pass &lt;10mm² peeled off surface layer</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosion and Durability</td>
<td>Salt Fog</td>
<td>ISO 7253 (500 hours) Pass – Corrosion creep &lt;2mm from scratch</td>
</tr>
<tr>
<td>Mortar Resistance</td>
<td>ASTM C207</td>
<td>Easy to remove. No staining</td>
</tr>
<tr>
<td>Boiling Water</td>
<td>2 hours boiling water</td>
<td>No defects or detachments</td>
</tr>
<tr>
<td>Humidity</td>
<td>BS3900: Part F2</td>
<td>Pass. 1000 hours without any effect.</td>
</tr>
<tr>
<td>Artificial Weathering</td>
<td>QUV-B ISO 11507</td>
<td>After 500 hours. Residual Gloss &gt;50%</td>
</tr>
<tr>
<td>Exterior Durability</td>
<td>After 3 years Florida exposure, minimal loss of gloss or colour change. No film breakdown or reduction in protective properties</td>
<td></td>
</tr>
<tr>
<td>Chemical Resistance</td>
<td>Very resistant to detergents. Resistant to most acids, alkalis and oils.</td>
<td></td>
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</table>

Graffiti Removal

The anti-graffiti coating, having superior solvent resistance, may be cleaned with a variety of solvents, the choice of which will depend on the type of graffiti encountered. For example:

- Mild Detergent – Light soiling, shoe polish, lipstick, water-based marker
- Alcohol, Acetone, Trichloroethylene – Heavy soiling, permanent marker pens
- Acetone, Trichloroethylene – Aerosol

The solvent should be used sparingly and in conjunction with the manufacturer’s instructions. After cleaning, do not allow solvent to remain in contact with the coating for a prolonged period. It is recommended that after solvent-based graffiti removal, the surface should be washed with a mild detergent solution (e.g. 5% Teepol) to remove solvent residues.

Colour Availability

The system is a clear gloss.

Application Notes

To reduce the chance of yellowing or sagging owing to high film builds, we recommend the product be applied to cold or cool substrates rather than applied hot.

Restriction of Hazardous Substances (RoHS/RoHS2)

This product conforms to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS and RoHS2) Directive. It does not contain any compounds of lead, mercury, cadmium or hexavalent chromium; nor does it contain polybrominated biphenyls (PBBs) or polybrominated diphenyl ether (PBDE).

Health & Safety

This product is intended for use only by professional applicators in industrial environments. Consult the relevant health and safety data sheet indicated in the box label before use. This product releases a small (1.5% w/w) amount of ε-caprolactam on stoving. Care should be taken to ensure adequate ventilation that working concentrations ε-caprolactam of are kept below 25mg/m³.