



IFS PUROPLAZ PE20 Technical Data Sheet

Puroplaz PE20

Description: *PE20* is a polyethylene based thermoplastic powder coating which is designed for applications requiring high impact, chemical and UV resistance. It is ideal for coastal environments, anti-chipping, anti-graffiti, and high abrasion areas.

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| Theoretical Coverage | 202 ft ² /mil |
| Shelf life (below 100°F in dry condition) | 5 years |

Material Properties:

| Property | Test Method | Value |
|-------------------------|------------------|---|
| Specific Gravity | ASTM D 792 | 0.93-0.96 g/cm ³ |
| Melting Point | DSC | 106 °C / 222°F |
| Melt Index | ASTM D 1238 | 20 g/10 Min |
| Hardness | ASTM D 2240 | 50 Shore D |
| Tensile Strength | ASTM D 638 | 24 MPa - 25 MPa / 3480psi -3600 psi |
| Elongation | ASTM D 638 | 450-500 % |
| Corrosion/Adhesion/Bend | ASTM F2453/2453M | Meets requirements |
| Impact Resistance | ASTM D 2794 | >40 Joules on 0.7mm plate |
| Abrasion Resistance | ASTM D 4060 | 23 mm loss CS 17(1000g after 1000cycles) |
| Dielectric Strength | ASTM D 149 | 890 volts/mil in clear |
| QUV | ASTM G53 | 2000 hours No significant change in color |
| Gloss | ASTM D 523 | 70 ± 5 |

Chemical Resistance Good resistance to most organic acids and alkalis. Testing is suggested to determine resistance to specific solvents.

Pretreatment conditions Metal surface must be clean/degreased and other foreign matters need to be completely removed. Multi-stage clean, rinse and phosphate process can be used. Mechanical preparation by blasting according to SSPC-SP10 (SSI-Sa2 ½) is also effective. Recommended grit size is 1.5-3mil (0.4µm-0.75µm).

Fluidized bed coating Metal parts should be pre heated to 400 - 430 °F (205 - 220 °C) depending of metal thickness. Dip for 4-8 Seconds or as required to achieve desired thickness.

Electrostatic coating PE 20 is suitable for electrostatic spray application. Pre-heat, post-heat, or a combination can be used. For coating without using pre-heat, the powder should be applied to achieve a thickness of minimum 7 mils (180 micron). Post-heat at 355 - 430 °F (180 - 220 °C) for 5 - 20 minutes depending on metal thickness, or until smooth coating surface is achieved. For preheated parts, the recommended preheat temperature is 68 - 86 °F (20 - 30 °C) above the post heat temperature.

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