



# 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.

Theoretical Coverage	202 ft <sup>2</sup> /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 <sup>3</sup>
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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