

## SABIC Innovative Plastics Xenoy® X6320 PBT+PC

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

X6320 is a mineral filled PBT/PC resin developed for automotive painted doorhandles. Key advantages are excellent surface finish, easy processing and paint quality. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Xenoy-X6320-PBTPC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-X6320-PBTPC.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.33 g/cc	1.33 g/cc	ASTM D 792
Density	1.33 g/cc	0.0480 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.060 %	0.060 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.12 % @Temperature 23.0 °C	0.12 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0080 cm/cm @Thickness 3.20 mm	0.0050 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	16 g/10 min @Load 5.00 kg, Temperature 250 °C	16 g/10 min @Load 11.0 lb, Temperature 482 °F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133
	20 g/10 min @Load 5.00 kg, Temperature 250 °C	20 g/10 min @Load 11.0 lb, Temperature 482 °F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	41.0 MPa	5950 psi	Type I, 5 mm/min; ASTM D 638
	43.0 MPa	6240 psi	5 mm/min; ISO 527
Tensile Strength, Yield	63.0 MPa	9140 psi	Type I, 5 mm/min; ASTM D 638
	63.0 MPa	9140 psi	5 mm/min; ISO 527
Elongation at Break	25.4 %	25.4 %	5 mm/min; ISO 527
	55.8 %	55.8 %	Type I, 5 mm/min; ASTM D 638
Elongation at Yield	4.0 %	4.0 %	Type I, 5 mm/min; ASTM D 638
	4.3 %	4.3 %	5 mm/min; ISO 527

Tensile Modulus Mechanical Properties	3.86 GPa Metric	560 ksi English	1 mm/min; ISO 527 Comments
	3.89 GPa	564 ksi	5 mm/min; ASTM D 638
Flexural Yield Strength	106 MPa	15400 psi	2 mm/min; ISO 178
	107 MPa	15500 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	3.54 GPa	513 ksi	2 mm/min; ISO 178
	3.55 GPa	515 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	0.450 J/cm @Temperature 23.0 °C	0.843 ft-lb/in @Temperature 73.4 °F	ASTM D 256
	0.450 J/cm @Temperature -30.0 °C	0.843 ft-lb/in @Temperature -22.0 °F	ASTM D 256
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup> @Temperature 23.0 °C	2.38 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	80*10*4; ISO 180/1A
	5.00 kJ/m <sup>2</sup> @Temperature -30.0 °C	2.38 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	0.400 J/cm <sup>2</sup> @Temperature 23.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.400 J/cm <sup>2</sup> @Temperature -30.0 °C	1.90 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	65.0 J @Temperature 23.0 °C	47.9 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	59.9 µm/m-°C @Temperature -40.0 - 40.0 °C	33.3 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
	61.5 µm/m-°C @Temperature -40.0 - 60.0 °C	34.2 µin/in-°F @Temperature -40.0 - 140 °F	ASTM E 831
CTE, linear, Transverse to Flow	68.4 µm/m-°C @Temperature -40.0 - 40.0 °C	38.0 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
	70.2 µm/m-°C	39.0 µin/in-°F	

Thermal Properties	Metric @ Temperature -40.0 - 60.0 °C	English @ Temperature -40.0 - 140 °F	ASTM F 831 Comments
Deflection Temperature at 0.46 MPa (66 psi)	121 °C @Thickness 3.20 mm	250 °F @Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	78.0 °C	172 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	88.0 °C @Thickness 3.20 mm	190 °F @Thickness 0.126 in	unannealed; ASTM D 648
	115 °C @Thickness 6.40 mm	239 °F @Thickness 0.252 in	unannealed; ASTM D 648
Vicat Softening Point	137 °C	279 °F	Rate B/50; ISO 306
	139 °C	282 °F	Rate B/120; ISO 306
	139 °C	282 °F	Rate B/50; ASTM D 1525

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