








SABIC Xenoy® 6380U PBT+PET (Unverified Data**)








Categories: [Polymer](#); [Thermoplastic](#); [Polyester, TP](#); [Polybutylene Terephthalate \(PBT\)](#); [PBT + PET Blend, Glass Filled](#); [Polyethylene Terephthalate \(PET\)](#)

Material Notes: XENOY 6380U is a 30% glass reinforced, UV stabilized grade, that combines high stiffness with improved ductility.

This data was supplied by SABIC-IP for the Americas and Asia Pacific regions.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Specific Gravity	1.51 g/cc	1.51 g/cc	ASTM D 792
Density	1.51 g/cc	0.0546 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.15 %	0.15 %	23°C/50% RH; ISO 62
Water Absorption at Saturation	0.50 %	0.50 %	ISO 62
Linear Mold Shrinkage, Flow	0.0030 - 0.0070 cm/cm	0.0030 - 0.0070 in/in	tensile bar; SABIC Method
	0.0030 - 0.0070 cm/cm @Thickness 3.20 mm	0.0030 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow 	9.0 g/10 min @Load 1.20 kg, Temperature 265 °C	9.0 g/10 min @Load 2.65 lb, Temperature 509 °F	Melt Volume Rate (cm ³ /10 min); ISO 1133
	13 g/10 min @Load 1.20 kg, Temperature 266 °C	13 g/10 min @Load 2.65 lb, Temperature 511 °F	ASTM D 1238
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	ISO 2039-2
Tensile Strength at Break	100 MPa	14500 psi	Type I, 5 mm/min; ASTM D 638
	105 MPa	15200 psi	5 mm/min; ISO 527
Tensile Strength, Yield	100 MPa	14500 psi	Type I, 5 mm/min; ASTM D 638
	105 MPa	15200 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	5 mm/min; ISO 527
	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D 638
Elongation at Yield	2.0 %	2.0 %	5 mm/min; ISO 527
	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D 638
Tensile Modulus	8.20 GPa	1190 ksi	5 mm/min; ASTM D 638
	8.40 GPa	1220 ksi	1 mm/min; ISO 527
Flexural Strength	145 MPa	21000 psi	2 mm/min; ISO 178
Flexural Yield Strength	140 MPa	20300 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	7.00 GPa	1020 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	7.20 GPa	1040 ksi	2 mm/min; ISO 178
Izod Impact, Notched 	0.600 J/cm @Temperature -30.0 °C	1.12 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	0.800 J/cm @Temperature 23.0 °C	1.50 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Unnotched 	6.00 J/cm @Temperature -30.0 °C	11.2 ft-lb/in @Temperature -22.0 °F	ASTM D 4812
	6.50 J/cm @Temperature 23.0 °C	12.2 ft-lb/in @Temperature 73.4 °F	ASTM D 4812
Izod Impact, Notched (ISO) 	6.00 kJ/m ² @Thickness 4.00 mm, Temperature -30.0 °C	2.86 ft-lb/in ² @Thickness 0.157 in, Temperature -22.0 °F	80*10*4; ISO 180/1A
	10.0 kJ/m ² @Thickness 4.00 mm, Temperature 23.0 °C	4.76 ft-lb/in ² @Thickness 0.157 in, Temperature 73.4 °F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO) 	40.0 kJ/m ² @Thickness 3.00 mm, Temperature -30.0 °C	19.0 ft-lb/in ² @Thickness 0.118 in, Temperature -22.0 °F	80*10*3; ISO 180/1U
	40.0 kJ/m ² @Thickness 3.00 mm, Temperature 23.0 °C	19.0 ft-lb/in ² @Thickness 0.118 in, Temperature 73.4 °F	80*10*3; ISO 180/1U
Charpy Impact Unnotched 	3.50 J/cm ² @Thickness 4.00 mm, Temperature -30.0 °C	16.7 ft-lb/in ² @Thickness 0.157 in, Temperature -22.0 °F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	4.00 J/cm ² @Thickness 3.00 mm, Temperature 23.0 °C	19.0 ft-lb/in ² @Thickness 0.118 in, Temperature 73.4 °F	Edgew 80*10*3 sp=62mm; ISO 179/1eU
Charpy Impact, Notched 	0.700 J/cm ² @Thickness 4.00 mm, Temperature -30.0 °C	3.33 ft-lb/in ² @Thickness 0.157 in, Temperature -22.0 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.00 J/cm ² @Thickness 4.00 mm, Temperature -30.0 °C	4.76 ft-lb/in ² @Thickness 0.157 in, Temperature -22.0 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA

	Temperature 23.0 °C	Temperature 73.4 °F	
Instrumented Impact Total Energy	7.00 J	5.16 ft-lb	ASTM D 3763
Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+14 ohm-cm	>= 1.00e+14 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant 	4.0 @Frequency 1.00e+6 Hz	4.0 @Frequency 1.00e+6 Hz	IEC 60250
	4.2 @Frequency 50.0 - 60.0 Hz	4.2 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength 	17.0 kV/mm @Thickness 3.20 mm	432 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
	20.0 kV/mm @Thickness 1.60 mm	508 kV/in @Thickness 0.0630 in	in oil; IEC 60243-1
Dissipation Factor 	0.0020 @Frequency 50.0 - 60.0 Hz	0.0020 @Frequency 50.0 - 60.0 Hz	IEC 60250
	0.020 @Frequency 1.00e+6 Hz	0.020 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	300 V	300 V	IEC 60112
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow 	23.0 µm/m-°C @Temperature 23.0 - 80.0 °C	12.8 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
	25.0 µm/m-°C @Temperature -40.0 - 40.0 °C	13.9 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
CTE, linear, Transverse to Flow 	100 µm/m-°C @Temperature -40.0 - 40.0 °C	55.6 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	130 µm/m-°C @Temperature 23.0 - 80.0 °C	72.2 µin/in-°F @Temperature 73.4 - 176 °F	ISO 11359-2
Thermal Conductivity	0.190 W/m-K	1.32 BTU-in/hr-ft ² -°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	215 °C @Thickness 4.00 mm	419 °F @Thickness 0.157 in	Flatw 80*10*4 sp=64mm; ISO 75/Bf
Deflection Temperature at 1.8 MPa (264 psi) 	165 °C @Thickness 3.20 mm	329 °F @Thickness 0.126 in	unannealed; ASTM D 648
	180 °C @Thickness 4.00 mm	356 °F @Thickness 0.157 in	Flatw 80*10*4 sp=64mm; ISO 75/ Af
Vicat Softening Point	180 °C	356 °F	Rate B/120; ISO 306
	180 °C	356 °F	Rate B/50; ASTM D 1525
	180 °C	356 °F	Rate B/50; ISO 306
	215 °C	419 °F	Rate A/50; ISO 306
Flammability, UL94 	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	UL 94
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	UL 94
Glow Wire Flammability Index	750 °C @Thickness 3.20 mm	1380 °F @Thickness 0.126 in	IEC 60695-2-12
Descriptive Properties			
Ball Pressure Test, 125°C		PASSES	IEC 60695-10-2
Hardness, H358/30 (MPa)		115	ISO 2039-1

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