

## SABIC Innovative Plastics Xenoy® 1731 PBT+PC

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

### Material Notes:

Impact/chemical resistant. UV-Stabilized. Excellent physical property retention in automotive exteriors and OVAD.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Xenoy-1731-PBTPC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-1731-PBTPC.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.22 g/cc	1.22 g/cc	ASTM D792
Density	1.22 g/cc	0.0441 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.0800 %	0.0800 %	23Å°C / 50% RH; ISO 62
Water Absorption at Saturation	0.28 %	0.28 %	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Linear Mold Shrinkage, Transverse	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	8.0 g/10 min	8.0 g/10 min	ISO 1133
	@Load 5.00 kg, Temperature 250 Å°C	@Load 11.0 lb, Temperature 482 Å°F	
	9.6 g/10 min	9.6 g/10 min	ASTM D1238
	@Load 5.00 kg, Temperature 250 Å°C	@Load 11.0 lb, Temperature 482 Å°F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	56.0 MPa	8120 psi	Type I, 50 mm/min; ASTM D638
	58.0 MPa	8410 psi	
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ISO 527
	61.0 MPa	8850 psi	
Elongation at Break	90 %	90 %	50 mm/min; ISO 527
	100 %	100 %	
Elongation at Yield	5.0 %	5.0 %	Type I, 50 mm/min; ASTM D638
	5.0 %	5.0 %	

Mechanical Properties	Metric Pa	English	Comments ISO 527
	2.37 GPa	344 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	93.0 MPa	13500 psi	1.3 mm/min, 50 mm span; ASTM D790
	93.0 MPa	13500 psi	2 mm/min; ISO 178
Flexural Modulus	2.21 GPa	321 ksi	2 mm/min; ISO 178
	2.34 GPa	339 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	6.67 J/cm	12.5 ft-lb/in	ASTM D256
	1.06 J/cm	1.99 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.60 J/cm	3.00 ft-lb/in	ASTM D256
	@Thickness 6.40 mm	@Thickness 0.252 in	
Izod Impact, Notched (ISO)	59.0 kJ/m <sup>2</sup>	28.1 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	16.0 kJ/m <sup>2</sup>	7.61 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	6.50 J/cm <sup>2</sup>	30.9 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	61.0 J	45.0 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	61.0 J	45.0 ft-lb	ASTM D3763
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	77.5 Åµm/m-Å°C	43.1 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	77.5 Åµm/m-Å°C	43.1 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	82.8 Åµm/m-Å°C	46.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 -	@Temperature -40.0 -	

Thermal Properties	95.0 Å°C Metric	203 Å°F English	Comments
CTE, linear, Transverse to Flow	75.7 Åµm/m-Å°C	42.1 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	75.7 Åµm/m-Å°C	42.1 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	115 Å°C	239 Å°F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Deflection Temperature at 1.8 MPa (264 psi)	99.0 Å°C	210 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Åf
	93.0 Å°C	199 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
	107 Å°C	225 Å°F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Vicat Softening Point	125 Å°C	257 Å°F	Rate B/50; ASTM D1525
	127 Å°C	261 Å°F	Rate B/50; ISO 306
	130 Å°C	266 Å°F	Rate B/120; ISO 306
UL RTI, Electrical	75.0 Å°C	167 Å°F	UL 746B
UL RTI, Mechanical with Impact	75.0 Å°C	167 Å°F	UL 746B
UL RTI, Mechanical without Impact	75.0 Å°C	167 Å°F	UL 746B
Flammability, UL94	HB	HB	UL 94
	@Thickness 1.49 mm	@Thickness 0.0587 in	

Electrical Properties	Metric	English	Comments
Arc Resistance	120 - 180 sec	120 - 180 sec	Tungsten; ASTM D495
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	25.4 - 80.0 mm/min	1.00 - 3.15 in/min	UL 746A

Descriptive Properties	Value	Comments
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Specific Volume  
Descriptive Properties

0.82cm<sup>3</sup>/g  
Value

ASTM D792  
Comments

## Contact Songhan Plastic Technology Co.,Ltd.

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