

SABIC Innovative Plastics Xenoy[®] X3108UV PBT+PC (Europe-Africa-Middle East)

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

Material Notes:

Unreinforced, UV-stabilized, flame retardant, impact modified PBT+PC with V0 at 0.8mm thickness. For interior and exterior applications like wall switches and electrical enclosures. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-X3108UV-PBTPC-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.34 g/cc	1.34 g/cc	ASTM D 792
Density	1.34 g/cc	0.0484 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 % @Temperature 23.0 [°] C	0.50 % @Temperature 73.4 [°] F	ISO 62
Linear Mold Shrinkage, Flow	0.0080 - 0.011 cm/cm @Thickness 0.750 - 2.30 mm	0.0080 - 0.011 in/in @Thickness 0.0295 - 0.0906 in	SABIC Method
	0.010 - 0.014 cm/cm @Thickness 2.30 - 4.60 mm	0.010 - 0.014 in/in @Thickness 0.0906 - 0.181 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0090 - 0.013 cm/cm @Thickness 0.750 - 2.30 mm	0.0090 - 0.013 in/in @Thickness 0.0295 - 0.0906 in	SABIC Method
	0.012 - 0.016 cm/cm @Thickness 2.30 - 4.60 mm	0.012 - 0.016 in/in @Thickness 0.0906 - 0.181 in	SABIC Method
Melt Flow	8.0 g/10 min @Load 5.00 kg, Temperature 250 [°] C	8.0 g/10 min @Load 11.0 lb, Temperature 482 [°] F	[cm ³ /10 min] Melt Volume Rate; ISO 1133
	9.3 g/10 min @Load 5.00 kg, Temperature 250 [°] C	9.3 g/10 min @Load 11.0 lb, Temperature 482 [°] F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
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Tensile Strength at Break Mechanical Properties	40.0 MPa Metric	5800 psi English	50 mm/min; ISO 527 Comments
	42.0 MPa	6090 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	50.0 MPa	7250 psi	50 mm/min; ISO 527
	52.0 MPa	7540 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	26 %	26 %	Type I, 50 mm/min; ASTM D 638
	30 %	30 %	50 mm/min; ISO 527
Elongation at Yield	5.0 %	5.0 %	50 mm/min; ISO 527
	6.0 %	6.0 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.15 GPa	312 ksi	5 mm/min; ASTM D 638
	2.20 GPa	319 ksi	1 mm/min; ISO 527
Flexural Yield Strength	78.0 MPa	11300 psi	1.3 mm/min, 50 mm span; ASTM D 790
	80.0 MPa	11600 psi	2 mm/min; ISO 178
Flexural Modulus	2.00 GPa	290 ksi	2 mm/min; ISO 178
	2.02 GPa	293 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	1.58 J/cm	2.96 ft-lb/in	ASTM D 256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	5.22 J/cm	9.78 ft-lb/in	ASTM D 256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Notched (ISO)	10.0 kJ/m ²	4.76 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	45.0 kJ/m ²	21.4 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	4.50 J/cm ²	21.4 ft-lb/in ²	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Impact Test	60.0 J	44.3 ft-lb	Instrumented Impact Total Energy; ASTM D 3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	50.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ASTM E 831
	@Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$	@Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$	
	100 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	55.6 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ISO 11359-2
	@Temperature 23.0 - 80.0 $\text{Å}^\circ\text{C}$	@Temperature 73.4 - 176 $\text{Å}^\circ\text{F}$	
CTE, linear, Transverse to Flow	90.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	50.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ASTM E 831
	@Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$	@Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$	
	100 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	55.6 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ISO 11359-2
	@Temperature 23.0 - 80.0 $\text{Å}^\circ\text{C}$	@Temperature 73.4 - 176 $\text{Å}^\circ\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	85.0 $\text{Å}^\circ\text{C}$	185 $\text{Å}^\circ\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	88.0 $\text{Å}^\circ\text{C}$	190 $\text{Å}^\circ\text{F}$	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Vicat Softening Point	145 $\text{Å}^\circ\text{C}$	293 $\text{Å}^\circ\text{F}$	Rate B/50; ISO 306
	148 $\text{Å}^\circ\text{C}$	298 $\text{Å}^\circ\text{F}$	Rate B/50; ASTM D 1525
	150 $\text{Å}^\circ\text{C}$	302 $\text{Å}^\circ\text{F}$	Rate B/120; ISO 306
UL RTI, Electrical	120 $\text{Å}^\circ\text{C}$	248 $\text{Å}^\circ\text{F}$	UL 746B
UL RTI, Mechanical with Impact	120 $\text{Å}^\circ\text{C}$	248 $\text{Å}^\circ\text{F}$	UL 746B
UL RTI, Mechanical without Impact	140 $\text{Å}^\circ\text{C}$	284 $\text{Å}^\circ\text{F}$	UL 746B
Flammability, UL94	V-0	V-0	UL 94 by SABIC-IP
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	5VA	5VA	UL 94 by SABIC-IP
	@Thickness 2.50 mm	@Thickness 0.0984 in	
Oxygen Index	30 %	30 %	LOI; ISO 4589
Glow Wire Test	960 $\text{Å}^\circ\text{C}$	1760 $\text{Å}^\circ\text{F}$	Glow Wire Flammability Index; IEC 60695-2-12
	@Thickness 1.00 mm	@Thickness 0.0394 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+15$ ohm-cm	$\geq 1.00\text{e}+15$ ohm-cm	IEC 60093

Electrical Properties	1.00e+16 ohm-cm Metric	1.00e+16 ohm-cm English	ASTM D 257 Comments
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
	1.00e+16 ohm	1.00e+16 ohm	ASTM D 257
Dielectric Constant	2.9	2.9	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.0	3.0	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0020	0.0020	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0070	0.0070	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	225 V	225 V	IEC 60112

Descriptive Properties	Value	Comments
Ball Pressure Test, 125Å°C +/- 2Å°C	pass	IEC 60695-10-2

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