

SABIC Innovative Plastics Valox[®] 357 PBT+PC

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

Material Notes:

PC/PBT, Unreinforced, impact modified, UL94V-0 rated. Applications like bobbins, switches and enclosures.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-357-PBTPC.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.35 g/cc	1.35 g/cc	ASTM D792
Density	1.34 g/cc	0.0484 lb/in ³	ISO 1183
Water Absorption	0.080 % @Time 86400 sec	0.080 % @Time 24.0 hour	ASTM D570
Moisture Absorption	0.150 %	0.150 %	23 [°] C / 50% RH; ISO 62
Water Absorption at Saturation	0.50 %	0.50 %	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
	0.010 - 0.014 cm/cm @Thickness 3.20 mm	0.010 - 0.014 in/in @Thickness 0.126 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	9.6 g/10 min @Load 5.00 kg, Temperature 250 [°] C	9.6 g/10 min @Load 11.0 lb, Temperature 482 [°] F	ASTM D1238
Melt Index of Compound	8.0 g/10 min @Load 5.00 kg, Temperature 250 [°] C	8.0 g/10 min @Load 11.0 lb, Temperature 482 [°] F	MVR [cm ³ /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	117	117	ASTM D785
Tensile Strength at Break	40.0 MPa	5800 psi	50 mm/min; ISO 527
	42.0 MPa	6090 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	48.0 MPa	6960 psi	Type I, 50 mm/min; ASTM D638
	50.0 MPa	7250 psi	50 mm/min; ISO 527
Elongation at Break	30 %	30 %	50 mm/min; ISO 527
	54 %	54 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	5.0 %	5.0 %	Type I, 50 mm/min; ASTM D638
	5.0 %	5.0 %	50 mm/min; ISO 527
Tensile Modulus	2.02 GPa	293 ksi	5 mm/min; ASTM D638
	2.20 GPa	319 ksi	1 mm/min; ISO 527
Flexural Strength	78.0 MPa	11300 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Yield Strength	73.0 MPa	10600 psi	2 mm/min; ISO 178
	78.0 MPa	11300 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.00 GPa	290 ksi	2 mm/min; ISO 178
	2.10 GPa	305 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	3.19 J/cm	5.98 ft-lb/in	ASTM D256
	1.53 J/cm	2.87 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched	NB	NB	NB3204; ASTM D4812
Izod Impact, Notched (ISO)	45.0 kJ/m ²	21.4 ft-lb/in ²	80*10*4; ISO 180/1A
	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	
Charpy Impact, Notched	4.50 J/cm ²	21.4 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Gardner Impact	43.0 J	31.7 ft-lb	ASTM D3029

Mechanical Properties	43.0 J Metric	31.7 ft-lb English	ASTM D3029 Comments
Dart Drop, Total Energy	35.0 J @Temperature 23.0 Â°C	25.8 ft-lb @Temperature 73.4 Â°F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	72.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	40.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	91.8 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	51.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
CTE, linear, Transverse to Flow	124 Âµm/m-Â°C @Temperature 60.0 - 138 Â°C	68.9 Âµin/in-Â°F @Temperature 140 - 280 Â°F	ASTM E 831
	84.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	46.7 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
Deflection Temperature at 0.46 MPa (66 psi)	84.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	46.7 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	135 Â°C @Thickness 3.20 mm	275 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	138 Â°C @Thickness 6.40 mm	280 Â°F @Thickness 0.252 in	unannealed; ASTM D648
	84.0 Â°C @Thickness 3.20 mm	183 Â°F @Thickness 0.126 in	Flatw 80*10*4 sp=64mm; ISO 75/Af
Vicat Softening Point	98.0 Â°C @Thickness 3.20 mm	208 Â°F @Thickness 0.126 in	unannealed; ASTM D648
	99.0 Â°C @Thickness 6.40 mm	210 Â°F @Thickness 0.252 in	unannealed; ASTM D648
UL RTI, Electrical	134 Â°C	273 Â°F	Rate B/50; ASTM D1525
	145 Â°C	293 Â°F	Rate B/50; ISO 306
	150 Â°C	302 Â°F	Rate B/120; ISO 306

Thermal Properties UL RTI, Mechanical with Impact	Metric Metric	English English	Comments Comments
UL RTI, Mechanical without Impact	140 Â°C	284 Â°F	UL 746B

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.20e+16 ohm-cm	>= 1.20e+16 ohm-cm	ASTM D257
Dielectric Constant	3.2	3.2	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	3.2	3.2	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	18.5 kV/mm	470 kV/in	in air; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dielectric Strength	18.5 kV/mm	470 kV/in	in oil; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dielectric Strength	25.2 kV/mm	640 kV/in	in oil; ASTM D149
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Dissipation Factor	0.0030	0.0030	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	0.030	0.030	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	60 - 120 sec	60 - 120 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	15 - 30 arcs	15 - 30 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	UL 746A

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China