

SABIC Innovative Plastics Valox® 553 PBT (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

Material Notes:

VALOX 553 is a 30% glass fibre reinforced, flame retardant PBT+PC blend with good warpage characteristics. Applications: appliance handles, spotlights, electric motors, pumphousings.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-553-PBT-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.58 g/cc	1.58 g/cc	ASTM D792
Density	1.58 g/cc	0.0571 lb/in ³	ISO 1183
Filler Content	30 %	30 %	ASTM D229
Moisture Absorption	0.0700 %	0.0700 %	23 ^o C / 50% RH; ISO 62
Water Absorption at Saturation	0.26 %	0.26 %	ISO 62
Viscosity	200000 cP	200000 cP	Melt Viscosity, 260 ^o C, 1500 sec-1; ISO 11443
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	on Tensile Bar; SABIC Method
	0.0050 cm/cm @Thickness 3.20 mm	0.0050 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0090 cm/cm	0.0050 - 0.0090 in/in	on Tensile Bar; SABIC Method
Melt Flow	40 g/10 min @Load 5.00 kg, Temperature 266 ^o C	40 g/10 min @Load 11.0 lb, Temperature 511 ^o F	ASTM D1238
Melt Index of Compound	7.0 g/10 min @Load 2.16 kg, Temperature 250 ^o C	7.0 g/10 min @Load 4.76 lb, Temperature 482 ^o F	MVR [cm ³ /10 min]; ISO 1133
	20 g/10 min @Load 5.00 kg, Temperature 250 ^o C	20 g/10 min @Load 11.0 lb, Temperature 482 ^o F	MVR [cm ³ /10 min]; ISO 1133
	30 g/10 min @Load 5.00 kg, Temperature 265 ^o C	30 g/10 min @Load 11.0 lb, Temperature 509 ^o F	MVR [cm ³ /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	118	118	ISO 2039-2

Mechanical Properties <small>Hardness, H30W, 30</small>	Metric <small>132 MPa</small>	English <small>19600 psi</small>	Comments <small>ISO 2130-1</small>
Tensile Strength at Break	135 MPa	19600 psi	5 mm/min; ISO 527
	140 MPa	20300 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	135 MPa	19600 psi	5 mm/min; ISO 527
	140 MPa	20300 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	2.0 %	2.0 %	5 mm/min; ISO 527
	3.0 %	3.0 %	Flexural Strain, break, 2 mm/min; ISO 178
	3.0 %	3.0 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D638
	2.0 %	2.0 %	5 mm/min; ISO 527
Tensile Modulus	10.7 GPa	1550 ksi	5 mm/min; ASTM D638
	11.0 GPa	1600 ksi	1 mm/min; ISO 527
Flexural Strength	190 MPa	27600 psi	1.3 mm/min, 50 mm span; ASTM D790
	200 MPa	29000 psi	2 mm/min; ISO 178
Flexural Yield Strength	190 MPa	27600 psi	1.3 mm/min, 50 mm span; ASTM D790
	205 MPa	29700 psi	2 mm/min; ISO 178
Flexural Modulus	9.40 GPa	1360 ksi	1.3 mm/min, 50 mm span; ASTM D790
	9.50 GPa	1380 ksi	2 mm/min; ISO 178
Izod Impact, Notched	1.00 J/cm	1.87 ft-lb/in	ASTM D256
	0.900 J/cm	1.69 ft-lb/in	ASTM D256
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	0.950 J/cm	1.78 ft-lb/in	ASTM D256
	@Temperature 0.000 Â°C	@Temperature 32.0 Â°F	
Izod Impact, Unnotched	7.70 J/cm	14.4 ft-lb/in	ASTM D4812
	7.70 J/cm	14.4 ft-lb/in	ASTM D4812
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched (ISO)	10.0 kJ/m ²	7.38 ft-lb/in ²	80*10*4, ISO 180/1A
	45.0 kJ/m ²	21.4 ft-lb/in ²	Izod Reverse Impact, notched 80*10*4, 23.0°C; ISO 180/1C
	9.00 kJ/m ² @Temperature -30.0 °C	4.28 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
	10.0 kJ/m ² @Temperature 0.000 °C	4.76 ft-lb/in ² @Temperature 32.0 °F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	53.0 kJ/m ²	25.2 ft-lb/in ²	80*10*4; ISO 180/1U
	52.0 kJ/m ² @Temperature -30.0 °C	24.7 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	6.00 J/cm ²	28.6 ft-lb/in ²	ISO 179/2C
	NB	NB	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	5.50 J/cm ² @Temperature -30.0 °C	26.2 ft-lb/in ² @Temperature -22.0 °F	ISO 179/2C
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm ²	3.81 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.10 J/cm ²	5.23 ft-lb/in ²	ISO 179/2C
	0.800 J/cm ² @Temperature -30.0 °C	3.81 ft-lb/in ² @Temperature -22.0 °F	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.10 J/cm ² @Temperature -30.0 °C	5.23 ft-lb/in ² @Temperature -22.0 °F	ISO 179/2C
Dart Drop, Total Energy	8.00 J @Temperature 23.0 °C	5.90 ft-lb @Temperature 73.4 °F	ASTM D3763

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	ASTM D257

Electrical Properties	Metric	English	Comments
Surface Resistance	$\geq 1.00 \times 10^{15}$ ohm	$\geq 1.00 \times 10^{15}$ ohm	ROA; IEC 60093
Dielectric Constant	3.3	3.3	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.4	3.4	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	15.0 kV/mm	381 kV/in	in oil; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
	15.0 kV/mm	381 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	
	24.0 kV/mm	610 kV/in	in oil; ASTM D149
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	24.0 kV/mm	610 kV/in	in oil; IEC 60243-1
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	28.0 kV/mm	711 kV/in	in oil; IEC 60243-1
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	28.0 kV/mm	711 kV/in	in oil; ASTM D149
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Dissipation Factor	0.0010	0.0010	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0070	0.0070	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	0.020	0.020	IEC 60250
	@Frequency 2.45e+9 Hz	@Frequency 2.45e+9 Hz	
Arc Resistance	60 - 120 sec	60 - 120 sec	Tungsten; ASTM D495
Comparative Tracking Index	≥ 125 V	≥ 125 V	IEC 60112
	175 - 250 V	175 - 250 V	UL 746A
	225 V	225 V	IEC 60112

Electrical Properties

Metric

English

Comments

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