SABIC Innovative Plastics ValoxÂ® 4521 PBT (Europe-Africa-Middle East)

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

Material Notes:

VALOX 4521 is a high flow, 19.5% glass reinforced flame retardant PBT injection moulding resin. Applications: electrical applications.

Order this product through the following link:
http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-4521-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/inÂ³	ISO 1183
Filler Content	20 %	20 %	ASTM D229
Moisture Absorption	0.0900 %	0.0900 %	23Â°C / 50% RH; ISO 62
Water Absorption at Saturation	0.28 %	0.28 %	ISO 62
Viscosity	95000 cP	95000 cP	Melt Viscosity, 260Â°C, 1500 sec-1; ISO 11443
Linear Mold Shrinkage, Flow	0.0030 - 0.0070 cm/cm	0.0030 - 0.0070 in/in	on Tensile Bar; SABIC Method
Linear Mold Shrinkage, Transverse	0.0060 - 0.0090 cm/cm	0.0060 - 0.0090 in/in	on Tensile Bar; SABIC Method
Melt Flow	26 g/10 min @Load 2.16 kg, Temperature 250 Â°C	26 g/10 min @Load 4.76 lb, Temperature 482 Â°F	ISO 1133
	90 g/10 min @Load 5.00 kg, Temperature 265 Â°C	90 g/10 min @Load 11.0 lb, Temperature 509 Â°F	ASTM D1238
Melt Index of Compound	19 g/10 min @Load 2.16 kg, Temperature 250 Â°C	19 g/10 min @Load 4.76 lb, Temperature 482 Â°F	MVR [cm^3/10 min]; ISO 1133
	65 g/10 min @Load 5.00 kg, Temperature 250 Â°C	65 g/10 min @Load 11.0 lb, Temperature 482 Â°F	MVR [cm^3/10 min]; ISO 1133
	95 g/10 min @Load 5.00 kg, Temperature 265 Â°C	95 g/10 min @Load 11.0 lb, Temperature 509 Â°F	MVR [cm^3/10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	120	120	ISO 2039-2

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	110 MPa	16000 psi	Type I, 5 mm/min; ASTM D638
	110 MPa	16000 psi	5 mm/min; ISO 527
Tensile Strength, Yield	110 MPa	16000 psi	Type I, 5 mm/min; ASTM D638
	110 MPa	16000 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D638
	3.0 %	3.0 %	5 mm/min; ISO 527
	3.0 %	3.0 %	Flexural Strain, break, 2 mm/min; ISO 178
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	7.80 GPa	1130 ksi	5 mm/min; ASTM D638
	8.00 GPa	1160 ksi	1 mm/min; ISO 527
Flexural Strength	155 MPa	22500 psi	1.3 mm/min, 50 mm span; ASTM D790
	160 MPa	23200 psi	2 mm/min; ISO 178
Flexural Yield Strength	155 MPa	22500 psi	1.3 mm/min, 50 mm span; ASTM D790
	160 MPa	23200 psi	2 mm/min; ISO 178
Flexural Modulus	6.50 GPa	943 ksi	1.3 mm/min, 50 mm span; ASTM D790
	7.00 GPa	1020 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.700 J/cm	1.31 ft-lb/in	ASTM D256
	0.650 J/cm @Temperature -30.0 Â°C	1.22 ft-lb/in @Temperature -22.0 Â°F	ASTM D256
	0.700 J/cm @Temperature 0.000 Â°C	1.31 ft-lb/in @Temperature 32.0 Â°F	ASTM D256
Izod Impact, Unnotched	5.30 J/cm	9.93 ft-lb/in	ASTM D4812
	4.70 J/cm @Temperature -30.0 Â°C	8.81 ft-lb/in @Temperature -22.0 Â°F	ASTM D4812

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched (ISO)	8.00 kJ/mÂ²	3.81 ft-lb/inÂ²	80*10*4; ISO 180/1A
	7.00 kJ/mÂ² @Temperature -30.0 Â°C	3.33 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1A
	8.00 kJ/mÂ² @Temperature 0.000 Â°C	3.81 ft-lb/inÂ² @Temperature 32.0 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	35.0 kJ/mÂ²	16.7 ft-lb/inÂ²	80*10*4; ISO 180/1U
	30.0 kJ/mÂ² @Temperature -30.0 Â°C	14.3 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	3.00 J/cmÂ²	14.3 ft-lb/inÂ²	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	4.00 J/cmÂ²	19.0 ft-lb/inÂ²	ISO 179/2C
	2.80 J/cmÂ² @Temperature -30.0 Â°C	13.3 ft-lb/inÂ² @Temperature -22.0 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	3.00 J/cmÂ² @Temperature -30.0 Â°C	14.3 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179/2C
Charpy Impact, Notched	0.500 J/cmÂ²	2.38 ft-lb/inÂ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.800 J/cmÂ²	3.81 ft-lb/inÂ²	ISO 179/2C
	0.500 J/cmÂ² @Temperature -30.0 Â°C	2.38 ft-lb/inÂ² @Temperature -22.0 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.800 J/cmÂ² @Temperature -30.0 Â°C	3.81 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179/2C

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	3.3 @Frequency 50.0 - 60.0	3.3 @Frequency 50.0 - 60.0	IEC 60250

Electrical Properties	Metric	English	Comments
	3.4 @Frequency 1.00e+6 Hz	3.4 @Frequency 1.00e+6 Hz	ASTM D150
	3.4 @Frequency 1.00e+6 Hz	3.4 @Frequency 1.00e+6 Hz	IEC 60250
Dielectric Strength	20.0 kV/mm @Thickness 3.20 mm	508 kV/in @Thickness 0.126 in	in oil; ASTM D149
	20.0 kV/mm @Thickness 3.20 mm	508 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
	25.0 kV/mm @Thickness 1.60 mm	635 kV/in @Thickness 0.0630 in	in oil; IEC 60243-1
	25.0 kV/mm @Thickness 1.60 mm	635 kV/in @Thickness 0.0630 in	in oil; ASTM D149
	37.0 kV/mm @Thickness 0.800 mm	940 kV/in @Thickness 0.0315 in	in oil; ASTM D149
	37.0 kV/mm @Thickness 0.800 mm	940 kV/in @Thickness 0.0315 in	in oil; IEC 60243-1
Dissipation Factor	0.0010 @Frequency 50.0 - 60.0 Hz	0.0010 @Frequency 50.0 - 60.0 Hz	IEC 60250
	0.015 @Frequency 1.00e+6 Hz	0.015 @Frequency 1.00e+6 Hz	IEC 60250
	0.015 @Frequency 1.00e+6 Hz	0.015 @Frequency 1.00e+6 Hz	ASTM D150
Arc Resistance	120 - 180 sec	120 - 180 sec	Tungsten; ASTM D495
Comparative Tracking Index	275 V	275 V	IEC 60112
	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	>= 120 sec	>= 120 sec	UL 746A
High Amp Arc Ignition, HAI	>= 120 arcs	>= 120 arcs	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