SABIC Innovative Plastics ValoxÂ® V3500EX PBT (Europe-Africa-Middle East)

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

Material Notes:

Unfilled PBT,Flame Retardant, good flow, high elongation at break for Extrusion applications (Monofilaments, Insulation Cables),Electrical Parts and Connectors

Order this product through the following link:
http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-V3500EX-PBT-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.50 g/cc	1.50 g/cc	ASTM D792
Density	1.50 g/cc	0.0542 lb/inÂ³	ISO 1183
Moisture Absorption	0.0800 %	0.0800 %	23Â°C / 50% RH; ISO 62
Water Absorption at Saturation	0.35 %	0.35 %	ISO 62
Viscosity	170000 cP	170000 cP	Melt Viscosity, 260Â°C, 1500 sec-1; ISO 11443
Linear Mold Shrinkage, Flow	0.011 - 0.018 cm/cm	0.011 - 0.018 in/in	on Tensile Bar; SABIC Method
Linear Mold Shrinkage, Transverse	0.0090 - 0.018 cm/cm	0.0090 - 0.018 in/in	on Tensile Bar; SABIC Method
Melt Flow	50 g/10 min @Load 5.00 kg, Temperature 265 Â°C	50 g/10 min @Load 11.0 lb, Temperature 509 Â°F	ASTM D1238
	50 g/10 min @Load 5.00 kg, Temperature 266 Â°C	50 g/10 min @Load 11.0 lb, Temperature 511 Â°F	ASTM D1238
Melt Index of Compound	13 g/10 min @Load 2.16 kg, Temperature 250 Â°C	13 g/10 min @Load 4.76 lb, Temperature 482 Â°F	MVR [cm^3/10 min]; ISO 1133
	13 g/10 min @Load 5.00 kg, Temperature 250 Â°C	13 g/10 min @Load 11.0 lb, Temperature 482 Â°F	MVR [cm^3/10 min]; ISO 1133
	40 g/10 min @Load 5.00 kg, Temperature 265 Â°C	40 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	118	118	ISO 2039-2

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	170 MPa	24700 psi	ISO 2039-1
Tensile Strength at Break	40.0 MPa	5800 psi	Type I, 50 mm/min; ASTM D638
	50.0 MPa	7250 psi	50 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	Type I, 50 mm/min; ASTM D638
	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	15 %	15 %	Type I, 50 mm/min; ASTM D638
	>= 70 %	>= 70 %	50 mm/min; ISO 527
Elongation at Yield	3.0 %	3.0 %	Type I, 50 mm/min; ASTM D638
	3.0 %	3.0 %	50 mm/min; ISO 527
Tensile Modulus	3.10 GPa	450 ksi	50 mm/min; ASTM D638
	3.20 GPa	464 ksi	1 mm/min; ISO 527
Flexural Yield Strength	95.0 MPa	13800 psi	2 mm/min; ISO 178
Flexural Modulus	2.85 GPa	413 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.400 J/cm	0.749 ft-lb/in	ASTM D256
	0.400 J/cm @Temperature 0.000 Â°C	0.749 ft-lb/in @Temperature 32.0 Â°F	ASTM D256
	0.400 J/cm @Temperature -30.0 Â°C	0.749 ft-lb/in @Temperature -22.0 Â°F	ASTM D256
Izod Impact, Unnotched	9.50 J/cm	17.8 ft-lb/in	ASTM D4812
	8.30 J/cm @Temperature -30.0 Â°C	15.5 ft-lb/in @Temperature -22.0 Â°F	ASTM D4812
Izod Impact, Notched (ISO)	6.00 kJ/mÂ²	2.86 ft-lb/inÂ²	80*10*4; ISO 180/1A
	6.00 kJ/mÂ² @Temperature 0.000 Â°C	2.86 ft-lb/inÂ² @Temperature 32.0 Â°F	80*10*4; ISO 180/1A
	6.00 kJ/mÂ² @Temperature -30.0 Â°C	2.86 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	60.0 kJ/mÂ²	28.6 ft-lb/inÂ²	80*10*4; ISO 180/1U

Mechanical Properties	Metric J/mÂ²	English lb/inÂ²	Comments
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	9.50 J/cmÂ²	45.2 ft-lb/inÂ²	ISO 179/2C
	8.00 J/cmÂ² @Temperature -30.0 Â°C	38.1 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
	0.600 J/cmÂ²	2.86 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	ISO 179/2C

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.1 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	33.4 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	190 Âµm/m-Â°C @Temperature 23.0 - 150 Â°C	106 Âµin/in-Â°F @Temperature 73.4 - 302 Â°F	ISO 11359-2
CTE, linear, Transverse to Flow	74.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	41.1 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	142 Âµm/m-Â°C @Temperature 23.0 - 150 Â°C	78.9 Âµin/in-Â°F @Temperature 73.4 - 302 Â°F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	165 Â°C	329 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	165 Â°C @Thickness 3.20 mm	329 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	80.0 Â°C	176 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	80.0 Â°C @Thickness 3.20 mm	176 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	180 Â°C	356 Â°F	Rate B/50; ISO 306

Thermal Properties	Metric	English	Comments
	180 Â°C	356 Â°F	Rate B/50; ASTM D1525
	220 Â°C	428 Â°F	Rate A/50; ISO 306
	220 Â°C	428 Â°F	Rate A/50; ASTM D1525
UL RTI, Electrical	75.0 Â°C	167 Â°F	UL 746B

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	2.9 @Frequency 1.00e+6 Hz	2.9 @Frequency 1.00e+6 Hz	ASTM D150
	2.9 @Frequency 1.00e+6 Hz	2.9 @Frequency 1.00e+6 Hz	IEC 60250
Dielectric Strength	21.0 kV/mm @Thickness 3.20 mm	533 kV/in @Thickness 0.126 in	in oil; ASTM D149
	21.0 kV/mm @Thickness 3.20 mm	533 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
	39.0 kV/mm @Thickness 1.60 mm	991 kV/in @Thickness 0.0630 in	in oil; IEC 60243-1
	39.0 kV/mm @Thickness 1.60 mm	991 kV/in @Thickness 0.0630 in	in oil; ASTM D149
	62.0 kV/mm @Thickness 0.800 mm	1570 kV/in @Thickness 0.0315 in	in oil; IEC 60243-1
Dissipation Factor	0.016 @Frequency 1.00e+6 Hz	0.016 @Frequency 1.00e+6 Hz	ASTM D150
	0.016 @Frequency 1.00e+6 Hz	0.016 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	225 V	225 V	IEC 60112

Electrical Properties	Metric	English	Comments

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