

## SABIC Innovative Plastics Valox® 8032U PBT+PET (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , PBT + PET Blend, Glass Filled , Polyethylene Terephthalate (PET)

### Material Notes:

VALOX 8032U is a 30% glass fibre reinforced, UV stabilized PBT+PET blend with excellent surface finish. Applications: appliance housings, door handles, mirror brackets.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Valox-8032U-PBTPET-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-8032U-PBTPET-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.58 g/cc	1.58 g/cc	ASTM D792
Density	1.53 g/cc	0.0553 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.0500 %	0.0500 %	23Å°C / 50% RH; ISO 62
Water Absorption at Saturation	0.16 %	0.16 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0080 cm/cm	0.0040 - 0.0080 in/in	on Tensile Bar; SABIC Method
	0.0040 - 0.0080 cm/cm @Thickness 3.20 mm	0.0040 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0060 - 0.010 cm/cm	0.0060 - 0.010 in/in	on Tensile Bar; SABIC Method
	0.0060 - 0.010 cm/cm @Thickness 3.20 mm	0.0060 - 0.010 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	15 g/10 min	15 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 265 Å°C	@Load 4.76 lb, Temperature 509 Å°F	
Melt Index of Compound	15 g/10 min	15 g/10 min	MVR [cm <sup>3</sup> /10 min]; ISO 1133
	@Load 2.16 kg, Temperature 265 Å°C	@Load 4.76 lb, Temperature 509 Å°F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	119	119	ISO 2039-2
Hardness, H358/30	110 MPa	16000 psi	ISO 2039-1
Tensile Strength at Break	115 MPa	16700 psi	Type I, 5 mm/min; ASTM D638
	145 MPa	21000 psi	5 mm/min; ISO 527

Tensile Strength, Yield Mechanical Properties	115 MPa Metric	16700 psi English	Type I, 5 mm/min; ASTM D638 Comments
	145 MPa	21000 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D638
	2.5 %	2.5 %	5 mm/min; ISO 527
Elongation at Yield	2.0 %	2.0 %	Type I, 5 mm/min; ASTM D638
	2.4 %	2.4 %	5 mm/min; ISO 527
Tensile Modulus	9.50 GPa	1380 ksi	1 mm/min; ISO 527
	9.95 GPa	1440 ksi	5 mm/min; ASTM D638
Flexural Strength	210 MPa	30500 psi	2 mm/min; ISO 178
Flexural Yield Strength	165 MPa	23900 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	8.45 GPa	1230 ksi	1.3 mm/min, 50 mm span; ASTM D790
	8.50 GPa	1230 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.570 J/cm	1.07 ft-lb/in	ASTM D256
	0.480 J/cm	0.899 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched	4.80 J/cm	8.99 ft-lb/in	ASTM D4812
	4.70 J/cm	8.81 ft-lb/in	ASTM D4812
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Notched (ISO)	9.00 kJ/m <sup>2</sup>	4.28 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	8.00 kJ/m <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature 0.000 °C	@Temperature 32.0 °F	
	8.00 kJ/m <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	45.0 kJ/m <sup>2</sup>	21.4 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	40.0 kJ/m <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Charpy Impact Unnotched Mechanical Properties	Metric	English	Comments
	4.00 J/cm <sup>2</sup> @Temperature -30.0 Å°C	19.0 ft-lb/in <sup>2</sup> @Temperature -22.0 Å°F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	0.900 J/cm <sup>2</sup> @Temperature -30.0 Å°C	4.28 ft-lb/in <sup>2</sup> @Temperature -22.0 Å°F	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.900 J/cm <sup>2</sup> @Temperature -30.0 Å°C	4.28 ft-lb/in <sup>2</sup> @Temperature -22.0 Å°F	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	8.00 J @Temperature 23.0 Å°C	5.90 ft-lb @Temperature 73.4 Å°F	ASTM D3763
Taber Abrasion, mg/1000 Cycles	30	30	CS-17, 1 kg; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	22.0 Åµm/m-Å°C	12.2 Åµin/in-Å°F	ISO 11359-2
	@Temperature 23.0 - 60.0 Å°C	@Temperature 73.4 - 140 Å°F	
	25.0 Åµm/m-Å°C	13.9 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	75.0 Åµm/m-Å°C	41.7 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	81.0 Åµm/m-Å°C	45.0 Åµin/in-Å°F	ISO 11359-2
	@Temperature 23.0 - 60.0 Å°C	@Temperature 73.4 - 140 Å°F	
Deflection Temperature at 1.8 MPa (264 psi)	217 Å°C	423 Å°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
	208 Å°C @Thickness 3.20 mm	406 Å°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	195 Å°C	383 Å°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	190 Å°C @Thickness 3.20 mm	374 Å°F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	202 Å°C	396 Å°F	Rate B/50; ISO 306

Thermal Properties	202 Â°C Metric	396 Â°F English	Rate B/50; ASTM D1525 Comments
	204 Â°C	399 Â°F	Rate B/120; ISO 306
	220 Â°C	428 Â°F	Rate A/50; ISO 306
	220 Â°C	428 Â°F	Rate A/50; ASTM D1525
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	UL 94 by SABIC-IP

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 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	3.2 @Frequency 1.00e+6 Hz	3.2 @Frequency 1.00e+6 Hz	IEC 60250
	3.3 @Frequency 50.0 - 60.0 Hz	3.3 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	3.6 @Frequency 100 Hz	3.6 @Frequency 100 Hz	IEC 60250
	15.0 kV/mm @Thickness 3.20 mm	381 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
	23.0 kV/mm @Thickness 1.60 mm	584 kV/in @Thickness 0.0630 in	in oil; IEC 60243-1
Dissipation Factor	27.0 kV/mm @Thickness 0.800 mm	686 kV/in @Thickness 0.0315 in	in oil; IEC 60243-1
	0.00080 @Frequency 50.0 - 60.0 Hz	0.00080 @Frequency 50.0 - 60.0 Hz	IEC 60250
	0.013 @Frequency 1.00e+6 Hz	0.013 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	300 V	300 V	IEC 60112
	250 - 400 V	250 - 400 V	UL 746A

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

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