

## SABIC Innovative Plastics Valox® 865 PBT+PET

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

### Material Notes:

30% GR PBTP, UL94 V-0 rated. Non-blooming flame retardant. Improved surface appearance. Same application areas as for VALOX 855.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Valox-865-PBTPET.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-865-PBTPET.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.66 g/cc	1.66 g/cc	ASTM D792
Water Absorption	0.030 %	0.030 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0030 - 0.0050 cm/cm	0.0030 - 0.0050 in/in	SABIC Method
	@Thickness 1.50 - 3.20 mm	@Thickness 0.0591 - 0.126 in	
	0.0050 - 0.0080 cm/cm	0.0050 - 0.0080 in/in	SABIC Method
	@Thickness 3.20 - 4.60 mm	@Thickness 0.126 - 0.181 in	
Linear Mold Shrinkage, Transverse	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	SABIC Method
	@Thickness 1.50 - 3.20 mm	@Thickness 0.0591 - 0.126 in	
	0.0060 - 0.0090 cm/cm	0.0060 - 0.0090 in/in	SABIC Method
	@Thickness 3.20 - 4.60 mm	@Thickness 0.126 - 0.181 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	119	119	ASTM D785
Tensile Strength at Break	117 MPa	17000 psi	Type I, 5 mm/min; ASTM D638
Flexural Strength	179 MPa	26000 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	7.58 GPa	1100 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	0.800 J/cm	1.50 ft-lb/in	ASTM D256
Izod Impact, Unnotched	6.40 J/cm	12.0 ft-lb/in	ASTM D4812

Thermal Properties	Metric	English	Comments
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Thermal Properties CTE, linear, Parallel to Flow	21.6 Åµm/m-Å°C Metric	12.0 Åµin/in-Å°F English	Comments ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	21.6 Åµm/m-Å°C	12.0 Åµin/in-Å°F	ASTM E 831
	@Temperature 60.0 - 138 Å°C	@Temperature 140 - 280 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	212 Å°C	414 Å°F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Deflection Temperature at 1.8 MPa (264 psi)	193 Å°C	379 Å°F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
UL RTI, Electrical	110 Å°C	230 Å°F	UL 746B
UL RTI, Mechanical with Impact	110 Å°C	230 Å°F	UL 746B
UL RTI, Mechanical without Impact	110 Å°C	230 Å°F	UL 746B
Flammability, UL94	V-0	V-0	UL 94
	@Thickness 1.80 mm	@Thickness 0.0709 in	
	5VA	5VA	UL 94
	@Thickness 2.99 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.80e+16 ohm-cm	1.80e+16 ohm-cm	ASTM D257
Dielectric Constant	3.7	3.7	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.8	3.8	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	18.8 kV/mm	478 kV/in	in air; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
	23.2 kV/mm	589 kV/in	in oil; ASTM D149
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Dissipation Factor	0.0020	0.0020	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.010	0.010	ASTM D150
	@Frequency 1.00e+6	@Frequency 1.00e+6	

Electrical Properties	Hz Metric	Hz English	Comments
Arc Resistance	60 - 120 sec	60 - 120 sec	Tungsten; ASTM D495
Comparative Tracking Index	175 - 250 V	175 - 250 V	UL 746A
Hot Wire Ignition, HWI	60 - 120 sec	60 - 120 sec	UL 746A
High Amp Arc Ignition, HAI	15 - 30 arcs	15 - 30 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	>= 150 mm/min	>= 5.91 in/min	UL 746A

Descriptive Properties	Value	Comments
Specific Volume	0.6cm <sup>3</sup> /g	ASTM D792

## Contact Songhan Plastic Technology Co.,Ltd.

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