

SABIC Innovative Plastics Valox® 365 PET

Category : Polymer , Thermoplastic , Polyester, TP , Polyethylene Terephthalate (PET)

Material Notes:

Unreinforced, opaque, provides chemical resistance and dimensional stability, UL94V-0 rated at 0.031". This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-365-PET.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.33 g/cc	1.33 g/cc	ASTM D 792
Water Absorption	0.14 % @Time 86400 sec	0.14 % @Time 24.0 hour	ASTM D 570
Moisture Absorption at Equilibrium	0.60 % @Temperature 23.0 Â°C	0.60 % @Temperature 73.4 Â°F	ASTM D 570
Linear Mold Shrinkage, Flow	0.0080 - 0.011 cm/cm @Thickness 0.750 - 2.30 mm	0.0080 - 0.011 in/in @Thickness 0.0295 - 0.0906 in	SABIC Method
	0.010 - 0.014 cm/cm @Thickness 2.30 - 4.60 mm	0.010 - 0.014 in/in @Thickness 0.0906 - 0.181 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0090 - 0.013 cm/cm @Thickness 0.750 - 2.30 mm	0.0090 - 0.013 in/in @Thickness 0.0295 - 0.0906 in	SABIC Method
	0.012 - 0.016 cm/cm @Thickness 2.30 - 4.60 mm	0.012 - 0.016 in/in @Thickness 0.0906 - 0.181 in	SABIC Method

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	115	115	ASTM D 785
Tensile Strength at Break	41.0 MPa	5950 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	41.0 MPa	5950 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	120 %	120 %	Type I, 50 mm/min; ASTM D 638
Flexural Strength	68.0 MPa	9860 psi	1.3 mm/min, 50 mm span; ASTM D 790
	68.0 MPa	9860 psi	1.3 mm/min, 50 mm span; ASTM D

Flexural Yield Strength Mechanical Properties	Metric	English	790 Comments
Flexural Modulus	2.24 GPa	325 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	1.70 J/cm	3.18 ft-lb/in	ASTM D 256
	@Temperature -40.0 Â°C	@Temperature -40.0 Â°F	
	1.92 J/cm	3.60 ft-lb/in	ASTM D 256
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	6.40 J/cm	12.0 ft-lb/in	ASTM D 256
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
Gardner Impact	37.0 J	27.3 ft-lb	ASTM D 3029
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	37.0 J	27.3 ft-lb	ASTM D 3029
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	68.4 Âµm/m-Â°C	38.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	79.2 Âµm/m-Â°C	44.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 95.0 Â°C	@Temperature -40.0 - 203 Â°F	
	82.8 Âµm/m-Â°C	46.0 Âµin/in-Â°F	ASTM E 831
	@Temperature 60.0 - 138 Â°C	@Temperature 140 - 280 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	129 Â°C	264 Â°F	unannealed; ASTM D 648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Deflection Temperature at 1.8 MPa (264 psi)	121 Â°C	250 Â°F	unannealed; ASTM D 648
	@Thickness 6.40 mm	@Thickness 0.252 in	
UL RTI, Electrical	105 Â°C	221 Â°F	UL 746B
UL RTI, Mechanical with Impact	105 Â°C	221 Â°F	UL 746B
UL RTI, Mechanical without Impact	105 Â°C	221 Â°F	UL 746B

Thermal Properties	Metric	English	Comments
	@Thickness 0.760 mm	@Thickness 0.0299 in	
	5VA	5VA	UL 94
	@Thickness 2.20 mm	@Thickness 0.0866 in	
Oxygen Index	28.8 %	28.8 %	LOI; ASTM D 2863

Electrical Properties	Metric	English	Comments
	5.7	5.7	
Dielectric Constant	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM D 150
	8.5	8.5	ASTM D 150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	12.0 kV/mm	305 kV/in	in oil; ASTM D 149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0020	0.0020	ASTM D 150
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.030	0.030	ASTM D 150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	60 - 120 sec	60 - 120 sec	Tungsten, PLC code 6; ASTM D 495
Comparative Tracking Index	175 - 250 V	175 - 250 V	PLC code 3; UL 746A
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	PLC code 2; UL 746A
High Amp Arc Ignition, HAI	15 - 30 arcs	15 - 30 arcs	surface, PLC code 3; UL 746A
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	PLC code 3; UL 746A

Descriptive Properties	Value	Comments
UV-light, water exposure/immersion	F2	UL 746C

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