VALOX™ 357U resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

PBT+PC, UL94V-0/5VA Rated, Impact Modified, Opaque, Unreinforced, UV Stabilized. Applications like bobbins, switches and enclosures

General Information			
UL YellowCard	E45587-236811	E207780-100434202	E207780-643583
Additive	Impact modifier UV stabilizer		
Features	Impact modification Good UV resistance		
Uses	Switch Shell spool		
Appearance	Opacity		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.34	g/cm³	ASTM D792
Specific Volume	0.750	cm³/g	ASTM D792
Molding Shrinkage			Internal method
Flow [1]	0.80 - 1.1	%	Internal method
Flow [2]	1.0 - 1.4	%	Internal method
Transverse flow [3]	0.90 - 1.3	%	Internal method
Transverse flow [4]	1.2 - 1.6	%	Internal method
Water Absorption (24 hr)	0.080	%	ASTM D570
Outdoor Suitability	f1		UL 746C
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [5]			ASTM D638
Yield	48.3	MPa	ASTM D638
Fracture	48.3	MPa	ASTM D638
Tensile Elongation [6] (Break)	110	%	ASTM D638
Flexural Modulus [7] (50.0 mm Span)	2070	MPa	ASTM D790
Flexural Strength [8]			ASTM D790
Yield, 50.0mm span	82.7	MPa	ASTM D790

Fracture, 50.0mm span	82.7	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	530	J/m	ASTM D256
Unnotched Izod Impact (23°C)	3200	J/m	ASTM D4812
Dart Drop Impact			ASTM D3029
23°C	43.4	J	ASTM D3029
23°C [9]	43.4	J	ASTM D3029
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	138	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	98.9	°C	ASTM D648
CLTE - Flow			ASTM E831
-40 to 40°C	9.2E-5	cm/cm/°C	ASTM E831
60 to 138°C	1.2E-4	cm/cm/°C	ASTM E831
RTI Elec	120	°C	UL 746
RTI Imp	120	°C	UL 746
RTI	140	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.2E+16	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Oil	25	kV/mm	ASTM D149
3.20 mm, in Air	19	kV/mm	ASTM D149
3.20 mm, in Oil	19	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
100 Hz	3.20		ASTM D150
1 MHz	3.20		ASTM D150
Dissipation Factor			ASTM D150
100 Hz	3.0E-3		ASTM D150
1 MHz	0.030		ASTM D150
Arc Resistance [10]	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 3		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.460 mm	HB		UL 94
0.640 mm	V-0		UL 94
3.00 mm	5VA		UL 94
Oxygen Index	30	%	ASTM D2863
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	

Drying Time	3.0 - 4.0	hr
Drying Time, Maximum	12	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 - 80	%
Rear Temperature	238 - 254	°C
Middle Temperature	243 - 260	°C
Front Temperature	249 - 266	°C
Nozzle Temperature	243 - 260	°C
Processing (Melt) Temp	249 - 266	°C
Mold Temperature	48.9 - 76.7	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	50 - 100	rpm
Vent Depth	0.025 - 0.038	mm

NOTE	
1.	0.75 to 2.3 mm
2.	2.3 to 4.6 mm
3.	0.75 to 2.3 mm
4.	2.3 to 4.6 mm
5.	Type 1, 50mm/min
6.	Type 1, 50mm/min
7.	1.3 mm/min
8.	1.3 mm/min
9.	Modified
10.	Tungsten electrode

Recommended distributors for this material

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