

VALOX™ V3902WX resin

Polycarbonate + PBT

SABIC Innovative Plastics Asia Pacific

Message:

PBT/PC blend - Unreinforced - Flame Retardant. This is a UV-stabilized grade designed for outdoor enclosure applications requiring UL 746C F1 weatherability performance.

General Information			
UL YellowCard	E207780-101953810		
Additive	UV Stabilizer		
Features	Flame Retardant		
	Good UV Resistance		
Uses	Outdoor Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm ³	ASTM D792
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	10.0	cm ³ /10min	ISO 1133
Outdoor Suitability	f1		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield	51.0	MPa	Internal Method
Yield ¹	54.0	MPa	ASTM D638
Yield	54.0	MPa	ISO 527-2/50
Break ²	42.0	MPa	ASTM D638
Tensile Elongation			
Yield ³	4.0	%	ASTM D638
Break	130	%	Internal Method
Break ⁴	38	%	ASTM D638
Break	23	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁵	2140	MPa	ASTM D790
-- ⁶	2260	MPa	ISO 178
Flexural Stress			
--	82.0	MPa	ISO 178
Yield, 50.0 mm Span ⁷	77.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁸			ISO 179/1eA
-30°C	12	kJ/m ²	
23°C	51	kJ/m ²	

Notched Izod Impact (23°C)	670	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	127	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	110	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁹	87.0	°C	ISO 75-2/Af
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
RTI Elec	115	°C	UL 746
RTI Imp	115	°C	UL 746
RTI Str	115	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	V-0		
3.00 mm	5VA		
Glow Wire Flammability Index			IEC 60695-2-12
1.00 mm	960	°C	
3.00 mm ¹⁰	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	775	°C	
3.00 mm	725	°C	
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 80	%	
Rear Temperature	238 to 254	°C	
Middle Temperature	243 to 260	°C	
Front Temperature	249 to 266	°C	
Nozzle Temperature	243 to 260	°C	
Processing (Melt) Temp	249 to 266	°C	
Mold Temperature	65.6 to 87.8	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	50 to 80	rpm	
Vent Depth	0.025 to 0.038	mm	
NOTE			
1.	Type I, 50 mm/min		
2.	Type I, 50 mm/min		

3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	1.3 mm/min
6.	2.0 mm/min
7.	1.3 mm/min
8.	80*10*4 sp=62mm
9.	80*10*4 mm
10.	by VDE

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