

VALOX™ 508 resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

VALOX 508 is a 30% glass reinforced PBT+PC blend with good warpage characteristics. Applications: appliance handles, spotlights, electric motors, distributor caps, ignition rotors, voltage regulators, loudspeaker baskets, air pressure switches, high power lamp bases and pump housings.

General Information			
UL YellowCard	E45329-236608		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Low Warpage		
Uses	Appliance Components		
	Automotive Applications		
	Pump Parts		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage ¹			Internal Method
Flow	0.40 to 0.60	%	
Across Flow	0.50 to 0.90	%	
Water Absorption			ISO 62
Saturation, 23°C	0.090	%	
Equilibrium, 23°C, 50% RH	0.060	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	119		ISO 2039-2
Ball Indentation Hardness (H 358/30)	122	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9000	MPa	ISO 527-2/1
Tensile Stress (Break)	115	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus ²	8000	MPa	ISO 178
Flexural Stress	170	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	50.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	6.5	kJ/m ²	

23°C	7.5	kJ/m ²	
Charpy Unnotched Impact Strength ⁴			ISO 179/1eU
-30°C	45	kJ/m ²	
23°C	45	kJ/m ²	
Notched Izod Impact Strength ⁵			ISO 180/1A
-30°C	7.0	kJ/m ²	
23°C	8.0	kJ/m ²	
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	40	kJ/m ²	
23°C	45	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁷			
0.45 MPa, Unannealed, 100 mm Span	206	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	160	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	217	°C	ISO 306/A50
--	170	°C	ISO 306/B50
--	175	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 80°C	2.5E-5	cm/cm/°C	
Transverse : 23 to 80°C	1.0E-4	cm/cm/°C	
Transverse : 23 to 150°C	1.1E-4	cm/cm/°C	
RTI Elec	125	°C	UL 746
RTI Imp	110	°C	UL 746
RTI Str	125	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms · cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	30	kV/mm	
1.00 mm ⁸	24	kV/mm	
1.60 mm, in Oil	23	kV/mm	
3.20 mm, in Oil	16	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	3.30		
60 Hz	3.30		
100 Hz	3.60		
1 MHz	3.20		
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		
60 Hz	1.0E-3		

100 Hz	1.4E-3		
1 MHz	0.013		
Comparative Tracking Index			IEC 60112
--	250	V	
Solution B	150	V	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index (1.00 mm)	750	°C	IEC 60695-2-12
Oxygen Index	21	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	110 to 120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	230 to 245	°C	
Middle Temperature	240 to 255	°C	
Front Temperature	245 to 265	°C	
Nozzle Temperature	240 to 260	°C	
Processing (Melt) Temp	250 to 270	°C	
Mold Temperature	40.0 to 100	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*4 sp=62mm		
4.	80*10*4 sp=62mm		
5.	80*10*4		
6.	80*10*4		
7.	120*10*4 mm		
8.	Short-Time		

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