

VALOX™ 553 resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

30% GR PBT+PC, UL94 V-0. Reduced warpage characteristics.Applications; appliance handles, spotlights, electric motors, pump housings, etc.

General Information			
UL YellowCard	E45587-236818	E207780-643582	
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Low warpage		
Uses	Handle		
	Pump parts		
	Home appliance components		
	Shell		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.59	g/cm³	ASTM D792
Specific Volume	0.640	cm³/g	ASTM D792
Molding Shrinkage			Internal method
Flow ¹	0.50 - 0.80	%	Internal method
Flow ²	0.30 - 0.50	%	Internal method
Transverse flow ³	0.40 - 0.60	%	Internal method
Transverse flow ⁴	0.60 - 0.90	%	Internal method
Water Absorption (24 hr)	0.070	%	ASTM D570
Outdoor Suitability	f1		UL 746C
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ⁵ (Break)	110	MPa	ASTM D638
Flexural Modulus ⁶ (50.0 mm Span)	9400	MPa	ASTM D790
Flexural Strength ⁷ (Break, 50.0 mm Span)	179	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	85	J/m	ASTM D256
Unnotched Izod Impact (23°C)	640	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	204	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	160	°C	ASTM D648
CLTE - Flow			ASTM E831

-40 to 40°C	2.2E-5	cm/cm/°C	ASTM E831
60 to 138°C	2.2E-5	cm/cm/°C	ASTM E831
RTI Elec	125	°C	UL 746
RTI Imp	110	°C	UL 746
RTI	125	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.3E+16	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Oil	26	kV/mm	ASTM D149
3.20 mm, in Air	19	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
100 Hz	3.80		ASTM D150
1 MHz	3.70		ASTM D150
Dissipation Factor			ASTM D150
100 Hz	2.0E-3		ASTM D150
1 MHz	0.020		ASTM D150
Arc Resistance ⁸	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 3		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 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.860 mm	V-0		UL 94
2.31 mm	5VA		UL 94
Oxygen Index	37	%	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	65.6 - 87.8	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	50 - 80	rpm	
Vent Depth	0.025 - 0.038	mm	
NOTE			

1.	3.2 to 4.6 mm
2.	1.5 to 3.2 mm
3.	1.5 to 3.2 mm
4.	3.2-4.6 mm
5.	Type 1, 5.0 mm/min
6.	1.3 mm/min
7.	1.3 mm/min
8.	Tungsten electrode

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

