

VALOX™ 4521 resin

Polybutylene Terephthalate
SABIC Innovative Plastics Europe

Message:
19.5% glass reinforced PBT. High flow, flame retardant.

General Information			
UL YellowCard	E207780-643581		
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	High liquidity		
	Flame retardancy		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm ³	ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	3520	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	89.6	MPa	ASTM D638
Fracture	91.0	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	2.4	%	ASTM D638
Fracture	2.5	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	4960	MPa	ASTM D790
Flexural Strength ⁵ (Break, 50.0 mm Span)	138	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	43	J/m	ASTM D256
Unnotched Izod Impact (23°C)	480	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	219	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	205	°C	ASTM D648
Ball Pressure Test ⁶ (200°C)	Pass		IEC 60695-10-2
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI	130	°C	UL 746
Electrical	Nominal Value		Test Method
Arc Resistance ⁷	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746

High Voltage Arc Tracking Rate (HVTR)	PLC 4	UL 746
Hot-wire Ignition (HWI)	PLC 0	UL 746
Flammability	Nominal Value	Test Method
Flame Rating (0.760 mm)	V-0	UL 94
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.	5.0 mm/min	
2.	Type 1, 5.0 mm/min	
3.	Type 1, 5.0 mm/min	
4.	1.3 mm/min	
5.	1.3 mm/min	
6.	Approximate maximum	
7.	Tungsten electrode	

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