VALOX™ K4560 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

30% glass reinforced PBT. Impact modified, high flow, hydrolytically stable.

General Information			
UL YellowCard	E45329-101938154		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	Impact modifier		
Features	Impact modification High liquidity Hydrolysis stability		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.50	g/cm³	ASTM D792
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	12.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.60 - 0.80	%	Internal method
Transverse flow: 3.20mm	1.0 - 1.2	%	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	8840	MPa	ASTM D638
Tensile Strength			
Yield [2]	112	MPa	ASTM D638

	107		
	110		
	112		
	115		
Fracture [3]	102	MPa	ASTM D638
Fracture [4]	96.0	MPa	ASTM D638
Fracture	120	MPa	ISO 527-2/5
Tensile Elongation [5]			ASTM D638
	3.0		
Yield	4.0	%	ASTM D638
	2.5		
	3.0		
	2.2		
Fracture	4.0	%	ASTM D638
Flexural Modulus			

	8000		
	7500		
	7100		
	7200		
50.0mm span [6]	7400	MPa	ASTM D790
-- [7]	7400	MPa	ISO 178
Flexural Stress			
--	175	MPa	ISO 178
Fracture, 50.0mm span [8]	173	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	96	J/m	ASTM D256
23°C [9]	11	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	820	J/m	ASTM D4812
23°C [10]	52	kJ/m²	ISO 180/1U
	6.10		
	7.56		
Instrumented Dart Impact (23°C, Total Energy)	8.81	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	220	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	200	°C	ASTM D648
Vicat Softening Temperature	204	°C	ISO 306/B120
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Glass Fiber Content	30	%	ISO 3451

	4.2		
	4.5		
	4.2		
Flexural Strain [11]	4.0	%	ASTM D790

Injection	Nominal Value	Unit
Drying Temperature	60.0 - 76.7	°C
Drying Time	4.0 - 6.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.050	%
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.	Type 1, 50mm/min
5.	Type 1, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4
10.	80*10*4
11.	1.3 mm/min, 50 mm span

Recommended distributors for this material

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