

VALOX™ K4560 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

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

General Information	
Filler / Reinforcement	Glass Fiber,30% Filler by Weight
Additive	Impact Modifier
Features	High Flow
	Hydrolytically Stable
	Impact Modified
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)
	Flexural DMA (ASTM D4065)
	Instrumented Impact (Energy) (ASTM D3763)
	Instrumented Impact (Load) (ASTM D3763)
	Pressure-Volume-Temperature (PVT - Zoller Method)
	Shear DMA (ASTM D4065)
	Specific Heat vs. Temperature (ASTM D3417)
	Tensile Creep (ASTM D2990)
	Tensile Fatigue
	Tensile Stress vs. Strain (ASTM D638)
	Thermal Conductivity vs. Temperature (ASTM E1530)
	Viscosity vs. Shear Rate (ASTM D3835)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.50	g/cm ³	ASTM D792
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.60 to 0.80	%	
Across Flow : 3.20 mm	1.0 to 1.2	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	8840	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield ²	112	MPa	
Break	107	MPa	
Break	115	MPa	
Break	110	MPa	
Break ³	112	MPa	

Break	102	MPa	
Break	96.0	MPa	
Tensile Elongation ⁴			ASTM D638
Yield ⁵	4.0	%	
Yield	3.0	%	
Break ⁶	2.5	%	
Break	3.0	%	
Break ⁷	4.0	%	
Break ⁸	2.2	%	
Flexural Modulus ⁹			ASTM D790
50.0 mm Span ¹⁰	7100	MPa	
50.0 mm Span ¹¹	7500	MPa	
50.0 mm Span ¹²	8000	MPa	
50.0 mm Span	7200	MPa	
50.0 mm Span ¹³	7400	MPa	
Flexural Strength ¹⁴ (Break, 50.0 mm Span)	173	MPa	ASTM D790
Flexural Strain - 1.3 mm/min, 50 mm span			ASTM D790
-- ¹⁵	4.2	%	
-- ¹⁶	4.2	%	
-- ¹⁷	4.5	%	
-- ¹⁸	4.0	%	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	96	J/m	ASTM D256
Unnotched Izod Impact (23°C)	820	J/m	ASTM D4812
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy ¹⁹	6.10	J	
23°C, Total Energy ²⁰	7.56	J	
23°C, Total Energy ²¹	8.81	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	220	°C	
1.8 MPa, Unannealed, 3.20 mm	200	°C	
Injection	Nominal Value	Unit	
Drying Temperature	60.0 to 76.7	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.050	%	
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.	5.0 mm/min	
2.	Type I, 5.0 mm/min	
3.	Type I, 5.0 mm/min	
4.	Type I, 5.0 mm/min	
5.	AFTER 1008 HOURS AT 155°C	
6.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV	
7.	AFTER 1008 HOURS AT 125°C	
8.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III	
9.	1.3 mm/min	
10.	AFTER 1008 HOURS AT 125°C	
11.	AFTER 1008 HOURS AT 155°C	
12.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV	
13.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III	
14.	1.3 mm/min	
15.	AFTER 1008 HOURS AT 125°C	
16.	AFTER 1008 HOURS AT 155°C	
17.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III	
18.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV	
19.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV	
20.	AFTER 1008 HOURS AT 125°C	
21.	AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III	

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



WECHAT