

VALOX™ K3501 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

Unfilled PBT, Hydrollytically Stable, Heat Stabilized, Impact Modified. A hydrollytically stable grade designed for improved performance under heat/humidity environments. Targeted at automotive underhood applications requiring USCAR-2 Class III humidity/heat performance.

General Information			
UL YellowCard	E121562-100657103		
Additive	Heat Stabilizer		
	Impact Modifier		
Features	Heat Stabilized		
	Hydrollytically Stable		
	Impact Modified		
Uses	Automotive Under the Hood		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.29	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	26.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	1.7 to 2.6	%	
Across Flow : 3.20 mm	1.7 to 2.6	%	
Water Absorption			ISO 62
Saturation, 23°C	0.34	%	
Equilibrium, 23°C, 50% RH	0.080	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2430	MPa	ASTM D638
--	2030	MPa	ISO 527-2/1
Tensile Strength			
	49.4		
Yield ²	54.0	MPa	ASTM D638
Yield	50.7	MPa	ISO 527-2/50

	37.0		
Break ³	24.3	MPa	ASTM D638
Break	73.4	MPa	ISO 527-2/50
Tensile Elongation			
	4.0		
Yield ⁴	3.5	%	ASTM D638
Yield	3.2	%	ISO 527-2/50
	25		
	12		
Break ⁵	51	%	ASTM D638
Break	37	%	ISO 527-2/50
Flexural Modulus			
	2330		
	2360		
50.0 mm Span ⁶	2080	MPa	ASTM D790
-- ⁷	2030	MPa	ISO 178
Flexural Stress			
--	73.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	71.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	10	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-20°C	73	J/m	ASTM D256
0°C	83	J/m	ASTM D256
23°C	89	J/m	ASTM D256
23°C ¹⁰	8.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact (-30°C)	No Break		ASTM D4812, ISO 180/1U
Instrumented Dart Impact			ASTM D3763

-40°C, Total Energy	60.0	J	
	61.0		
	58.0		
23°C, Total Energy	48.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	127	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	46.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	46.4	°C	ISO 75-2/Af
Vicat Softening Temperature	170	°C	ISO 306/B50, ISO 306/B120
CLTE			ISO 11359-2
Flow : -40 to 40°C	9.1E-5	cm/cm/°C	
Transverse : -40 to 40°C	9.7E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	60.0 to 76.7	°C	
Drying Time	4.0 to 5.0	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.	50 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	Type I, 50 mm/min		
5.	Type I, 50 mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	1.3 mm/min		

9.	80*10*4 sp=62mm
10.	80*10*4
11.	80*10*4 mm

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

