

VALOX™ V4860HR resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

30% glass reinforced PBT, UL94 V-0 rated, Hydrolytically stable, Impact Modified.

General Information			
UL YellowCard	E45329-101031270		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	Impact modifier		
Features	Impact modification		
	Hydrolysis stability		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.64	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	18	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	12.4	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.18 - 0.21	%	Internal method
Transverse flow: 3.20mm	0.75 - 0.94	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.19	%	ISO 62
Equilibrium, 23°C, 50% RH	0.060	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	9750	MPa	ASTM D638
--	9450	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	116	MPa	ASTM D638
Yield	112	MPa	ISO 527-2/5
Fracture ³	115	MPa	ASTM D638
Fracture	111	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	2.3	%	ASTM D638
Yield	2.1	%	ISO 527-2/5
Fracture ⁵	2.3	%	ASTM D638
Fracture	2.2	%	ISO 527-2/5

Flexural Modulus			
50.0mm span ⁶	6740	MPa	ASTM D790
-- ⁷	7880	MPa	ISO 178
Flexural Stress			
--	183	MPa	ISO 178
--	182	MPa	ISO 178
Yield, 50.0mm span ⁸	174	MPa	ASTM D790
Fracture, 50.0mm span ⁹	2.96	MPa	ASTM D790
Flexural Strain at Break ¹⁰	2.9	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹¹ (23°C)	11	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	74	J/m	ASTM D256
23°C	90	J/m	ASTM D256
-30°C ¹²	8.5	kJ/m ²	ISO 180/1A
23°C ¹³	10	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	13.4	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 6.40mm	221	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	197	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	205	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹⁴	188	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	176	°C	ASTM D1525, ISO 306/B50 ¹⁵
--	175	°C	ISO 306/B120
Ball Pressure Test ¹⁶ (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 95°C	2.4E-5	cm/cm/°C	ASTM E831
Flow: 23 to 80°C	2.3E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 95°C	1.1E-4	cm/cm/°C	ASTM E831
Lateral: 23 to 80°C	1.2E-4	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (0.800 mm, Testing by SABIC)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 - 70	%	
Rear Temperature	220 - 240	°C	

Middle Temperature	230 - 250	°C
Front Temperature	240 - 260	°C
Nozzle Temperature	240 - 260	°C
Processing (Melt) Temp	230 - 260	°C
Mold Temperature	60.0 - 120	°C
Back Pressure	0.345 - 0.690	MPa
Screw Speed	20 - 100	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, 5.0 mm/min
5.	Type 1, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	1.3 mm/min
10.	2 mm/min
11.	80*10*4 sp=62mm
12.	80*10*4
13.	80*10*4
14.	80*10*4 mm
15.	标准 B (120°C/h), 载荷2 (50N)
16.	Approximate maximum

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