

VALOX™ V9561 resin

Polyethylene Terephthalate
SABIC Innovative Plastics Europe

Message:

Flame retardant PET, 30% Glass fiber filled. Offering a good balance in CTI , GWIT , High Heat and mechanical performances.

General Information			
UL YellowCard	E45329-100142817		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Flame Retardant		
Features	High Heat Resistance		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.74	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
265°C/5.0 kg	30	g/10 min	
266°C/5.0 kg	30	g/10 min	
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	33.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.10 to 0.30	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.050	%	
Equilibrium, 23°C, 50% RH	0.25	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ISO 2039-2
Ball Indentation Hardness (H 358/30)	265	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	13000	MPa	ASTM D638
--	13000	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	145	MPa	ASTM D638
Yield	143	MPa	ISO 527-2/5
Break ⁴	145	MPa	ASTM D638
Break	143	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁵	2.2	%	ASTM D638
Yield	2.0	%	ISO 527-2/5
Break ⁶	2.2	%	ASTM D638

Break	2.0	%	ISO 527-2/5
Flexural Modulus ⁷	10800	MPa	ISO 178
Flexural Stress	190	MPa	ISO 178
Flexural Strain at Break ⁸	2.3	%	ISO 178
Filler Content	36	%	ASTM D229
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C	6.0	kJ/m ²	ISO 179/2C
23°C ⁹	7.0	kJ/m ²	ISO 179/1eA, ISO 179/2C
Charpy Unnotched Impact Strength			ISO 179/2U
-30°C	30	kJ/m ²	
23°C	35	kJ/m ²	
Notched Izod Impact			
-30°C	60	J/m	ASTM D256
0°C	60	J/m	ASTM D256
23°C	60	J/m	ASTM D256
-30°C ¹⁰	6.0	kJ/m ²	ISO 180/1A
0°C ¹¹	6.0	kJ/m ²	ISO 180/1A
23°C ¹²	6.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
-30°C	430	J/m	ASTM D4812
23°C	550	J/m	ASTM D4812
-30°C ¹³	35	kJ/m ²	ISO 180/1U
23°C ¹⁴	35	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ¹⁵			
0.45 MPa, Unannealed, 64.0 mm Span	245	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 64.0 mm Span	200	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	255	°C	ASTM D1525, ISO 306/A50 12 ¹⁶
--	235	°C	ASTM D1525, ISO 306/B50, ISO 306/B120 ¹⁷
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 80°C	1.9E-5	cm/cm/°C	
Transverse : 23 to 80°C	6.7E-5	cm/cm/°C	
RTI Elec	150	°C	UL 746
RTI Imp	90.0	°C	UL 746
RTI Str	150	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 3		UL 746
Comparative Tracking Index	200	V	IEC 60112

High Amp Arc Ignition (HAI)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm, Testing by SABIC)	V-0		UL 94
Glow Wire Flammability Index (1.00 to 3.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	800	°C	
2.00 mm	800	°C	
3.00 mm	800	°C	
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (260°C, 1500 sec ⁻¹)	260	Pa · s	ISO 11443
Injection	Nominal Value	Unit	
Drying Temperature	120 to 130	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	250 to 270	°C	
Middle Temperature	260 to 280	°C	
Front Temperature	270 to 290	°C	
Nozzle Temperature	260 to 280	°C	
Processing (Melt) Temp	270 to 290	°C	
Mold Temperature	90.0 to 120	°C	
NOTE			
1.	Tensile Bar		
2.	5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	Type I, 5.0 mm/min		
7.	2.0 mm/min		
8.	2 mm/min		
9.	80*10*4 sp=62mm		
10.	80*10*4		
11.	80*10*4		
12.	80*10*4		
13.	80*10*4		
14.	80*10*4		
15.	80*10*4 mm		
16.	Rate A (50°C/h), Loading 2 (50 N)		
17.	Rate B (120°C/h), Loading 2 (50 N)		

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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

