

VALOX™ VX4910 resin

Acrylonitrile Butadiene Styrene + PBT

SABIC Innovative Plastics Europe

Message:

10% Glass reinforced nucleated PBT/ASA with excellent mechanical properties high dimensional stability, and low density.

General Information			
Filler / Reinforcement	Glass Fiber,10% Filler by Weight		
Additive	Nucleating Agent		
Features	Good Dimensional Stability		
	Low Density		
	Nucleated		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/3.8 kg	20	g/10 min	
265°C/5.0 kg	40	g/10 min	
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/5.0 kg	25.0	cm³/10min	
265°C/5.0 kg	35.0	cm³/10min	
Molding Shrinkage - Flow (3.20 mm)	0.60 to 0.80	%	Internal Method
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ISO 2039-2
Ball Indentation Hardness (H 358/30)	100	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	4600	MPa	ASTM D638
--	4600	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	80.0	MPa	ASTM D638
Yield	80.0	MPa	ISO 527-2/5
Break ³	80.0	MPa	ASTM D638
Break	80.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	3.0	%	ISO 527-2/5
Break ⁵	3.0	%	ASTM D638

Break	3.0	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	3400	MPa	ASTM D790
-- ⁷	3800	MPa	ISO 178
Flexural Stress			
--	115	MPa	ISO 178
--	120	MPa	ISO 178
Yield, 50.0 mm Span ⁸	115	MPa	ASTM D790
Break, 50.0 mm Span ⁹	115	MPa	ASTM D790
Flexural Strain at Break ¹⁰	4.0	%	ISO 178
Filler Content	10	%	ASTM D229
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/2C
-30°C	5.0	kJ/m ²	
23°C	6.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/2U
-30°C	20	kJ/m ²	
23°C	45	kJ/m ²	
Notched Izod Impact			
-30°C	45	J/m	ASTM D256
0°C	50	J/m	ASTM D256
23°C	55	J/m	ASTM D256
-30°C ¹¹	5.0	kJ/m ²	ISO 180/1A
0°C ¹²	5.0	kJ/m ²	ISO 180/1A
23°C ¹³	5.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
-30°C	340	J/m	ASTM D4812
23°C	440	J/m	ASTM D4812
-30°C ¹⁴	25	kJ/m ²	ISO 180/1U
23°C ¹⁵	30	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	45.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	205	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁶	205	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	130	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁷	130	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	218	°C	ASTM D1525, ISO 306/A50 ¹¹ ¹⁸
--	150	°C	ASTM D1525, ISO 306/B50 ¹² ¹⁹

--	155	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : -40 to 40°C	4.1E-5	cm/cm/°C	
Flow : 23 to 60°C	5.0E-5	cm/cm/°C	
Flow : 23 to 150°C	3.6E-5	cm/cm/°C	
Transverse : -40 to 40°C	8.1E-5	cm/cm/°C	
Transverse : 23 to 60°C	1.2E-4	cm/cm/°C	
Transverse : 23 to 150°C	2.0E-4	cm/cm/°C	
Electrical	Nominal Value		Test Method
Dielectric Constant (1 MHz)	3.40		ASTM D150, IEC 60250
Dissipation Factor (1 MHz)	0.020		ASTM D150, IEC 60250
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (260°C, 1500 sec ⁻¹)	160	Pa·s	ISO 11443
Injection	Nominal Value	Unit	
Drying Temperature	110 to 120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	230 to 245	°C	
Middle Temperature	240 to 255	°C	
Front Temperature	245 to 265	°C	
Nozzle Temperature	240 to 260	°C	
Processing (Melt) Temp	250 to 270	°C	
Mold Temperature	40.0 to 100	°C	
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.	Type I, 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		
12.	80*10*4		
13.	80*10*4		
14.	80*10*4		
15.	80*10*4		
16.	80*10*4 mm		

17.	80*10*4 mm
18.	Rate A (50°C/h), Loading 2 (50 N)
19.	Rate B (120°C/h), Loading 2 (50 N)

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

