VALOX™ 8032U resin

Polybutylene Terephthalate + PET

SABIC Innovative Plastics Europe

Message:

VALOX 8032U is a 30% glass fibre reinforced, UV stabilized PBT+PET blend with excellent surface finish. Applications: appliance housings, door handles, mirror brackets.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	UV Stabilizer		
Features	Good Surface Finish		
Uses	Appliance Components Handles Housings		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.58	g/cm³	ASTM D792
--	1.53	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	15.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Flow [1]	0.40 to 0.80	%	
Flow : 3.20 mm	0.40 to 0.80	%	
Across Flow [2]	0.60 to 1.0	%	
Across Flow : 3.20 mm	0.60 to 1.0	%	
Water Absorption			ISO 62
Saturation, 23°C	0.16	%	
Equilibrium, 23°C, 50% RH	0.050	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	119		ISO 2039-2
Ball Indentation Hardness (H 358/30)	110	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [3]	9950	MPa	ASTM D638
--	9500	MPa	ISO 527-2/1
Tensile Strength			

Yield [4]	115	MPa	ASTM D638
Yield	145	MPa	ISO 527-2/5
Break [5]	115	MPa	ASTM D638
Break	145	MPa	ISO 527-2/5
Tensile Elongation			
Yield [6]	2.0	%	ASTM D638
Yield	2.4	%	ISO 527-2/5
Break [7]	2.0	%	ASTM D638
Break	2.5	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [8]	8450	MPa	ASTM D790
-- [9]	8500	MPa	ISO 178
Flexural Stress			
--	210	MPa	ISO 178
Yield, 50.0 mm Span [10]	165	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	30.0	mg	Internal Method

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength [11]			ISO 179/1eA
-30°C	9.0	kJ/m²	
23°C	9.0	kJ/m²	
Charpy Unnotched Impact Strength [12]			ISO 179/1eU
-30°C	40	kJ/m²	
23°C	45	kJ/m²	
Notched Izod Impact			
-30°C	48	J/m	ASTM D256
23°C	57	J/m	ASTM D256
-30°C [13]	8.0	kJ/m²	ISO 180/1A
0°C [14]	8.0	kJ/m²	ISO 180/1A
23°C [15]	9.0	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
-30°C	470	J/m	ASTM D4812
23°C	480	J/m	ASTM D4812
-30°C [16]	40	kJ/m²	ISO 180/1U
23°C [17]	45	kJ/m²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	8.00	J	ASTM D3763

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	208	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span [18]	217	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	190	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span [19]	195	°C	ISO 75-2/Ae

Vicat Softening Temperature			
--	220	°C	ASTM D1525, ISO 306/A50 11 [20]
--	202	°C	ASTM D1525, ISO 306/B50 12 [21]
--	204	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	2.5E-5	cm/cm/°C	ASTM E831
Flow : 23 to 60°C	2.2E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.5E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 60°C	8.1E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	27	kV/mm	
1.60 mm, in Oil	23	kV/mm	
3.20 mm, in Oil	15	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	3.30		
60 Hz	3.30		
100 Hz	3.60		
1 MHz	3.20		
Dissipation Factor			IEC 60250
50 Hz	8.0E-4		
60 Hz	8.0E-4		
1 MHz	0.013		
Comparative Tracking Index (CTI)	PLC 2		UL 746
Comparative Tracking Index	300	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm, Testing by SABIC)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	110 to 120	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	240 to 260	°C	
Middle Temperature	255 to 280	°C	
Front Temperature	260 to 280	°C	
Nozzle Temperature	265 to 275	°C	
Processing (Melt) Temp	260 to 285	°C	
Mold Temperature	60.0 to 110	°C	

NOTE	
1.	Tensile Bar
2.	Tensile Bar
3.	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.	Type I, 5.0 mm/min
8.	1.3 mm/min
9.	2.0 mm/min
10.	1.3 mm/min
11.	80*10*4 sp=62mm
12.	80*10*4 sp=62mm
13.	80*10*4
14.	80*10*4
15.	80*10*4
16.	80*10*4
17.	80*10*4
18.	120*10*4 mm
19.	120*10*4 mm
20.	Rate A (50°C/h), Loading 2 (50 N)
21.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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