

XENOY™ 1760 resin

Polycarbonate + PBT

SABIC Innovative Plastics Asia Pacific

Message:

11% Glass Reinforced PBT+PC alloy. Impact/chemical resistant. Excellent physical property retention in automotive exteriors.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 11% filler by weight		
Features	Impact resistance, high		
	Good chemical resistance		
Uses	Automotive exterior parts		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm ³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	12.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.40 - 0.60	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.60	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	5330	MPa	ASTM D638
--	4950	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	84.0	MPa	ASTM D638
Yield	84.0	MPa	ISO 527-2/5
Fracture ³	84.0	MPa	ASTM D638
Fracture	84.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	3.0	%	ISO 527-2/5
Fracture ⁵	4.0	%	ASTM D638
Fracture	2.0	%	ISO 527-2/5
Flexural Modulus			
50.0mm span ⁶	3910	MPa	ASTM D790
-- ⁷	4050	MPa	ISO 178

Flexural Stress			
--	134	MPa	ISO 178
Yield, 50.0mm span ⁸	131	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	16	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	85	J/m	ASTM D256
23°C	95	J/m	ASTM D256
-30°C ¹⁰	3.0	kJ/m ²	ISO 180/1A
23°C ¹¹	3.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-30°C, Energy at Peak Load	3.00	J	ASTM D3763
-30°C, Total Energy	3.00	J	ASTM D3763
-20°C, Energy at Peak Load	4.00	J	ASTM D3763
23°C, Total Energy	8.00	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, unannealed, 6.40mm	115	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	104	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	121	°C	ASTM D1525 ¹³
--	135	°C	ISO 306/B50
--	130	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 40°C	7.7E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flow: -40 to 95°C	4.5E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	3.8E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 95°C	7.4E-5	cm/cm/°C	ASTM E831
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	50 - 80	%	
Rear Temperature	249 - 271	°C	
Middle Temperature	254 - 277	°C	
Front Temperature	260 - 282	°C	
Nozzle Temperature	254 - 277	°C	
Processing (Melt) Temp	260 - 282	°C	
Mold Temperature	65.6 - 93.3	°C	
Back Pressure	0.345 - 0.552	MPa	
Screw Speed	50 - 80	rpm	

Vent Depth	0.013 - 0.020	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.	80*10*4 sp=62mm	
10.	80*10*4	
11.	80*10*4	
12.	80*10*4 mm	
13.	标准 B (120°C/h), 载荷2 (50N)	

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