XENOY™ 1760E resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

11% Glass Reinforced alloy. Impact/chemical resistant. Excellent physical property retention in automotive exteriors. High flow version of XENOY 1760 resin.

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 11% filler by weight
Features	Impact resistance, good High liquidity Good chemical resistance
Uses	Automotive exterior parts
Processing Method	Injection molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831) Flexural DMA (ASTM D4065) Pressure-Volume-Temperature (PVT - Zoller Method) Shear DMA (ASTM D4065) Specific Heat vs. Temperature (ASTM D3417) Tensile Fatigue Tensile Stress vs. Strain (ASTM D638) Thermal Conductivity vs. Temperature (ASTM E1530) Viscosity vs. Shear Rate (ASTM D3835)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	27.0	cm³/10min	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]	5310	MPa	ASTM D638
--	4800	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]	3.0	%	ASTM D638
Fracture	3.0	%	ISO 527-2/5
Flexural Modulus			
50.0mm span [6]	3920	MPa	ASTM D790
-- [7]	4020	MPa	ISO 178
Flexural Stress			
--	133	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)	12	kJ/m²	ISO 179/1eA
Notched Izod Impact			
-30°C	60	J/m	ASTM D256
23°C	63	J/m	ASTM D256
-30°C [10]	3.0	kJ/m²	ISO 180/1A
23°C [11]	3.0	kJ/m²	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, 3.20mm	125	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	116	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [12]	101	°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			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	3.9E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	7.6E-5	cm/cm/°C	ASTM E831, ISO 11359-2
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	66 - 93	°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)

Recommended distributors for this material

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