

XENOY™ 1102 resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

Unreinforced PC/polyester alloy. Excellent low temperature impact/chemical resistance to automotive fluids.

General Information			
Features	Low temperature impact resistance		
	Good chemical resistance		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm³	ASTM D792, ISO 1183
Specific Volume	0.830	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	13	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/2.16 kg	6.00	cm³/10min	ISO 1133
250°C/5.0 kg	12.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.80 - 1.0	%	Internal method
Transverse flow: 3.20mm	0.80 - 1.0	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
Yield ¹	54.0	MPa	ASTM D638
Yield	50.0	MPa	ISO 527-2/50
Fracture	45.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	4.5	%	ISO 527-2/50
Fracture ²	150	%	ASTM D638
Fracture	120	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ³	1970	MPa	ASTM D790
-- ⁴	1880	MPa	ISO 178
Flexural Stress			
--	72.0	MPa	ISO 178
Yield, 50.0mm span ⁵	82.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C ⁶	40	kJ/m²	ISO 179/1eA

0°C ⁷	50	kJ/m ²	ISO 179/1eA
23°C ⁸	55	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ⁹ (-30°C)	No Break		ISO 179/1eU
Notched Izod Impact			
-30°C	640	J/m	ASTM D256
0°C	690	J/m	ASTM D256
23°C	800	J/m	ASTM D256
-30°C ¹⁰	44	kJ/m ²	ISO 180/1A
0°C ¹¹	52	kJ/m ²	ISO 180/1A
23°C ¹²	54	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 6.40mm	110	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ¹³	103	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 6.40mm	90.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹⁴	79.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	155	°C	ISO 306/A50
--	120	°C	ISO 306/B120
Linear thermal expansion coefficient			ISO 11359-2
Flow: -40 to 40°C	1.0E-4	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	1.1E-4	cm/cm/°C	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	243 - 266	°C	
Middle Temperature	249 - 271	°C	
Front Temperature	254 - 277	°C	
Nozzle Temperature	254 - 271	°C	
Processing (Melt) Temp	260 - 277	°C	
Mold Temperature	65.6 - 87.8	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	50 - 80	rpm	
Vent Depth	0.013 - 0.020	mm	
NOTE			
1.	Type 1, 50mm/min		
2.	Type 1, 50mm/min		
3.	1.3 mm/min		

4.	2.0 mm/min
5.	1.3 mm/min
6.	80*10*4 sp=62mm
7.	80*10*3 sp=62mm
8.	80*10*4 sp=62mm
9.	80*10*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	80*10*4
13.	80*10*4 mm
14.	80*10*4 mm

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