

XENOY™ X5300WX resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

Unreinforced, opaque PBT+PC alloy. Chemical resistance and good mechanical performance. UV-stabilized. Excellent weatherability.

General Information	
Additive	UV Stabilizer
Features	Good Chemical Resistance
	Good Weather Resistance
Appearance	Opaque
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)
	Flexural DMA (ASTM D4065)
	Instrumented Impact (Energy) (ASTM D3763)
	Instrumented Impact (Load) (ASTM D3763)
	Pressure-Volume-Temperature (PVT - Zoller Method)
	Specific Heat vs. Temperature (ASTM D3417)
	Tensile Creep (ASTM D2990)
	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	1.23	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (266°C/5.0 kg)	26	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	25.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.70 to 0.90	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2550	MPa	ASTM D638
--	2250	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	62.0	MPa	ASTM D638

Yield	62.0	MPa	ISO 527-2/50
Break ³	51.0	MPa	ASTM D638
Break	51.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	5.0	%	ISO 527-2/50
Break ⁵	110	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2480	MPa	ASTM D790
-- ⁷	2180	MPa	ISO 178
Flexural Stress			
--	87.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	96.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	45	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	180	J/m	ASTM D256
23°C	750	J/m	ASTM D256
-30°C ¹⁰	15	kJ/m ²	ISO 180/1A
23°C ¹¹	50	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	71.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	101	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	87.0	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	88.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	89.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	135	°C	ASTM D1525 ¹³
--	120	°C	ISO 306/B50
--	124	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Transverse : -40 to 40°C	7.6E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	7.5E-5	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	

Suggested Shot Size	50 to 80	%
Rear Temperature	243 to 266	°C
Middle Temperature	249 to 271	°C
Front Temperature	254 to 277	°C
Nozzle Temperature	254 to 271	°C
Processing (Melt) Temp	260 to 277	°C
Mold Temperature	65.6 to 87.8	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	50 to 80	rpm
Vent Depth	0.013 to 0.020	mm

NOTE

1.	50 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 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.	Rate B (120°C/h), Loading 2 (50 N)

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