

XENOY™ 5720U resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

Unfilled PBT+PC alloy. Outstanding low temperature impact/chemical resistance. UV stabilized version of XENOY

General Information			
Additive	UV stabilizer		
Features	Low temperature impact resistance		
	Good chemical resistance		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.17	g/cm³	ASTM D792, ISO 1183
Specific Volume	0.850	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR)			
250°C/2.16 kg	3.8	g/10 min	ASTM D1238, ISO 1133
250°C/5.0 kg	11	g/10 min	ASTM D1238, ISO 1133
265°C/2.16 kg	6.8	g/10 min	ASTM D1238
266°C/5.0 kg	20	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/2.16 kg	3.60	cm³/10min	ISO 1133
250°C/5.0 kg	10.9	cm³/10min	ISO 1133
265°C/2.16 kg	6.50	cm³/10min	ISO 1133
265°C/5.0 kg	18.9	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	1.0 - 1.2	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.28	%	ISO 62
Equilibrium, 23°C, 50% RH	0.080	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- 1	1830	MPa	ASTM D638
-- 2	1830	MPa	Internal method
-- 3	1820	MPa	ASTM D638
--	1800	MPa	ISO 527-2/1
Tensile Strength			
Yield 4	44.0	MPa	ASTM D638
Yield 5	45.0	MPa	Internal method
Yield 6	47.0	MPa	ASTM D638

Yield	44.0	MPa	ISO 527-2/5
Yield	47.0	MPa	ISO 527-2/50
Fracture ⁷	50.0	MPa	ASTM D638
Fracture ⁸	47.0	MPa	Internal method
Fracture ⁹	48.0	MPa	ASTM D638
Fracture	43.0	MPa	ISO 527-2/5, ISO 527-2/50
Tensile Elongation			
Yield ¹⁰	4.6	%	ASTM D638
Yield ¹¹	4.6	%	Internal method
Yield ¹²	4.0	%	ASTM D638
Yield	4.1	%	ISO 527-2/5
Yield	4.6	%	ISO 527-2/50
Fracture ¹³	120	%	ASTM D638
Fracture ¹⁴	110	%	Internal method
Fracture ¹⁵	120	%	ASTM D638
Fracture	110	%	ISO 527-2/5
Fracture	120	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ¹⁶	1660	MPa	ASTM D790
-- ¹⁷	1870	MPa	ISO 178
Flexural Stress			
--	71.0	MPa	ISO 178
Yield, 50.0mm span ¹⁸	70.0	MPa	ASTM D790
Fracture, 50.0mm span ¹⁹	69.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ²⁰			ISO 179/1eA
-30°C	48	kJ/m ²	ISO 179/1eA
23°C	56	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-40°C	600	J/m	ASTM D256
-30°C	650	J/m	ASTM D256
-20°C	700	J/m	ASTM D256
-10°C	660	J/m	ASTM D256
0°C	690	J/m	ASTM D256
23°C	720	J/m	ASTM D256
-40°C ²¹	46	kJ/m ²	ISO 180/1A
-30°C ²²	48	kJ/m ²	ISO 180/1A
-20°C ²³	50	kJ/m ²	ISO 180/1A
-10°C ²⁴	52	kJ/m ²	ISO 180/1A
0°C ²⁵	55	kJ/m ²	ISO 180/1A
23°C ²⁶	56	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763

-40°C, Energy at Peak Load	49.5	J	ASTM D3763
-40°C, Total Energy	59.2	J	ASTM D3763
-30°C, Energy at Peak Load	49.5	J	ASTM D3763
-30°C, Total Energy	61.9	J	ASTM D3763
-20°C, Energy at Peak Load	41.9	J	ASTM D3763
-20°C, Total Energy	53.2	J	ASTM D3763
23°C, Energy at Peak Load	44.8	J	ASTM D3763
23°C, Total Energy	54.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	108	°C	ASTM D648
0.45 MPa, unannealed, 6.40mm	117	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ²⁷	110	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	83.5	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	95.9	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ²⁸	87.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	120	°C	ASTM D1525, ISO 306/B50 14 ²⁹
--	122	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 95°C	9.8E-5	cm/cm/°C	ASTM E831
Flow: -30 to 80°C	9.8E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 95°C	1.0E-4	cm/cm/°C	ASTM E831
Horizontal: -30 to 80°C	1.0E-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.	5.0 mm/min		

2.	10 mm/min
3.	50 mm/min
4.	Type 1, 5.0 mm/min
5.	Type 1, 10mm/min
6.	Type 1, 50mm/min
7.	Type 1, 5.0 mm/min
8.	Type 1, 10mm/min
9.	Type 1, 50mm/min
10.	Type 1, 5.0 mm/min
11.	Type 1, 10mm/min
12.	Type 1, 50mm/min
13.	Type 1, 5.0 mm/min
14.	Type 1, 10mm/min
15.	Type 1, 50mm/min
16.	1.3 mm/min
17.	2.0 mm/min
18.	1.3 mm/min
19.	1.3 mm/min
20.	80*10*4 sp=62mm
21.	80*10*4
22.	80*10*4
23.	80*10*4
24.	80*10*4
25.	80*10*4
26.	80*10*4
27.	80*10*4 mm
28.	80*10*4 mm
29.	标准 B (120°C/h), 载荷2 (50N)

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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