

XENOY™ HX5600HP resin

Polycarbonate + PBT

SABIC Innovative Plastics Asia Pacific

Message:

XENOY HX5600HP is PBT based semi-crystalline blend with balanced flow and impact properties. Improved chemical resistance against lab disinfectants and chemicals for healthcare enclosure and housing applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO, Gamma and Steam sterilizable.

General Information			
Features	Biocompatible		
	Ethylene Oxide Sterilizable		
	Good Chemical Resistance		
	Good Flow		
	Good Impact Resistance		
	Radiation Sterilizable		
	Semi Crystalline		
	Steam Sterilizable		
Uses	Housings		
	Medical/Healthcare Applications		
Agency Ratings	ISO 10993		
	USP Class VI		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	11	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	10.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.70 to 1.1	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.050	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2100	MPa	ASTM D638
--	2050	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	50.0	MPa	ASTM D638
Yield	50.0	MPa	ISO 527-2/50

Break ³	52.0	MPa	ASTM D638
Break	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	5.0	%	ISO 527-2/50
Break ⁵	150	%	ASTM D638
Break	100	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2000	MPa	ASTM D790
-- ⁷	2050	MPa	ISO 178
Flexural Stress			
--	75.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	70.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	60	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ¹⁰ (-30°C)	No Break		ISO 179/1eU
Notched Izod Impact			
-30°C	600	J/m	ASTM D256
23°C	750	J/m	ASTM D256
-30°C ¹¹	25	kJ/m ²	ISO 180/1A
23°C ¹²	55	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹³ (-40°C)	No Break		ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	80.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed, 64.0 mm Span ¹⁴	105	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	80.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁵	80.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	125	°C	ASTM D1525, ISO 306/B50 11 ¹⁶
--	123	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	9.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flow : 23 to 60°C	1.0E-4	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	9.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (260°C, 1500 sec ⁻¹)	260	Pa · s	ISO 11443
Injection	Nominal Value	Unit	
Drying Temperature	90.0 to 100	°C	
Drying Time	2.0 to 4.0	hr	

Suggested Max Moisture	0.020	%
Hopper Temperature	40.0 to 60.0	°C
Rear Temperature	230 to 250	°C
Middle Temperature	240 to 265	°C
Front Temperature	250 to 270	°C
Nozzle Temperature	250 to 265	°C
Processing (Melt) Temp	255 to 270	°C
Mold Temperature	60.0 to 80.0	°C

NOTE

1.	5.0 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*3 sp=62mm
11.	80*10*4
12.	80*10*4
13.	80*10*4
14.	80*10*4 mm
15.	80*10*4 mm
16.	Rate B (120°C/h), Loading 2 (50 N)

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