

XYLEX™ HX7509HP resin

Polycarbonate + Polyester
SABIC Innovative Plastics Europe

Message:

Medium flow, polycarbonate/Polyester alloy; contains mold release. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI), food contact compliant. EtO and gamma sterilizable.

General Information			
UL YellowCard	E121562-483059		
Additive	demoulding		
Features	Radiation disinfection		
	Ethylene oxide disinfection		
	Medium liquidity		
	Biocompatibility		
	Compliance of Food Exposure		
Uses	Drug		
	Medical/nursing supplies		
Agency Ratings	ISO 10993		
	USP Class VI		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	12	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	11.5	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.40 - 0.60	%	Internal method
Transverse flow: 3.20mm	0.50 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.12	%	ISO 62
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2150	MPa	ASTM D638
--	2300	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	60.0	MPa	ASTM D638

Yield	60.0	MPa	ISO 527-2/50
Fracture ³	63.0	MPa	ASTM D638
Fracture	62.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.3	%	ASTM D638
Yield	5.8	%	ISO 527-2/50
Fracture ⁵	140	%	ASTM D638
Fracture	130	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2300	MPa	ASTM D790
-- ⁷	2260	MPa	ISO 178
Flexural Stress			
--	92.0	MPa	ISO 178
Yield, 50.0mm span ⁸	95.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	10	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	70	J/m	ASTM D256
23°C	850	J/m	ASTM D256
-30°C ¹⁰	8.0	kJ/m ²	ISO 180/1A
-10°C ¹¹	6.0	kJ/m ²	ISO 180/1A
23°C ¹²	9.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	77.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	119	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	106	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹³	108	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	126	°C	ASTM D1525, ISO 306/B120 11 ¹⁴
--	125	°C	ISO 306/B50
Linear thermal expansion coefficient			
Flow: -40 to 40°C	1.0E-4	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	6.8E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	1.0E-4	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	6.8E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.23	W/m/K	ISO 8302
Flammability	Nominal Value		Test Method
Flame Rating (0.750 mm)	V-2		UL 94
Optical	Nominal Value	Unit	Test Method
Transmittance (2540 µm)	88.0	%	ASTM D1003

Haze (2540 μm)	2.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	65.6 - 79.4	°C	
Drying Time	3.0 - 5.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 80	%	
Rear Temperature	243 - 260	°C	
Middle Temperature	243 - 271	°C	
Front Temperature	249 - 271	°C	
Nozzle Temperature	249 - 271	°C	
Processing (Melt) Temp	249 - 271	°C	
Mold Temperature	43.3 - 60.0	°C	
Back Pressure	0.103 - 0.517	MPa	
Screw Speed	20 - 100	rpm	
Vent Depth	0.013 - 0.020	mm	

NOTE

1. 50 mm/min
2. Type 1, 50mm/min
3. Type 1, 50mm/min
4. Type 1, 50mm/min
5. Type 1, 50mm/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
13. 80*10*4 mm
14. 标准 B (120°C/h), 载荷2 (50N)

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