

## SABIC Innovative Plastics XYLEX HX7509HP PC+POLYESTER

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/PET Polyester Blend , Polyester, TP , Polyethylene Terephthalate (PET)

### Material Notes:

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.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-XYLEX-HX7509HP-PCPOLYESTER.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-XYLEX-HX7509HP-PCPOLYESTER.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.0500 %	0.0500 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.12 %	0.12 %	ISO 62
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm @Thickness 3.20 mm	0.0040 - 0.0060 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	12 g/10 min @Load 2.16 kg, Temperature 265 <sup>o</sup> C	12 g/10 min @Load 4.76 lb, Temperature 509 <sup>o</sup> F	ASTM D1238
Melt Index of Compound	11 g/10 min @Load 2.16 kg, Temperature 265 <sup>o</sup> C	11 g/10 min @Load 4.76 lb, Temperature 509 <sup>o</sup> F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	62.0 MPa	8990 psi	50 mm/min; ISO 527
	63.0 MPa	9140 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	60.0 MPa	8700 psi	Type I, 50 mm/min; ASTM D638
	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	133 %	133 %	50 mm/min; ISO 527
	135 %	135 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	5.8 %	5.8 %	50 mm/min; ISO 527
	6.3 %	6.3 %	Type I, 50 mm/min; ASTM D638

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.14 GPa	310 ksi	50 mm/min; ASTM D638
	2.30 GPa	334 ksi	1 mm/min; ISO 527
Flexural Strength	92.0 MPa	13300 psi	2 mm/min; ISO 178
Flexural Yield Strength	95.0 MPa	13800 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.25 GPa	326 ksi	2 mm/min; ISO 178
	2.30 GPa	334 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	8.54 J/cm	16.0 ft-lb/in	ASTM D256
	0.700 J/cm	1.31 ft-lb/in	ASTM D256
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
Izod Impact, Notched (ISO)	9.00 kJ/mÂ²	4.28 ft-lb/inÂ²	80*10*4; ISO 180/1A
	6.00 kJ/mÂ²	2.86 ft-lb/inÂ²	80*10*4; ISO 180/1A
	@Temperature -10.0 Â°C	@Temperature 14.0 Â°F	
	8.00 kJ/mÂ²	3.81 ft-lb/inÂ²	80*10*4; ISO 180/1A
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
Charpy Impact, Notched	1.00 J/cmÂ²	4.76 ft-lb/inÂ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	77.0 J	56.8 ft-lb	ASTM D3763
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	68.0 Âµm/m-Â°C	37.8 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	104 Âµm/m-Â°C	57.8 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
CTE, linear, Transverse to Flow	68.0 Âµm/m-Â°C	37.8 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	104 Âµm/m-Â°C	57.8 Âµin/in-Â°F	

Thermal Properties	Metric @ Temperature -40.0 - 40.0 Â°C	English @ Temperature -40.0 - 104 Â°F	ASTM F 831 Comments
Thermal Conductivity	0.230 W/m-K	1.60 BTU-in/hr-ftÂ²- Â°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	119 Â°C @Thickness 3.20 mm	246 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	108 Â°C	226 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	106 Â°C @Thickness 3.20 mm	223 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	125 Â°C	257 Â°F	Rate B/50; ISO 306
	126 Â°C	259 Â°F	Rate B/120; ISO 306
	126 Â°C	259 Â°F	Rate B/50; ASTM D1525
Flammability, UL94	V-2 @Thickness 0.750 mm	V-2 @Thickness 0.0295 in	UL 94

Optical Properties	Metric	English	Comments
Haze	2.0 % @Thickness 2.54 mm	2.0 % @Thickness 0.100 in	ASTM D1003
Transmission, Visible	88 %	88 %	2.54 mm; ASTM D1003

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