Product Comparison

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Technical Data

Product Description	
XYLEX™ Resin HX7509HP - Europe	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.
Generic PC+Polyester	This data represents typical values that have been calculated from all products classified as: Generic PC +Polyester This information is provided for comparative purposes only.

General	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester
Manufacturer / Supplier	• SABIC	• Generic
Generic Symbol	• PC+Polyester	• PC+Polyester
Material Status	• Commercial: Active	• Commercial: Active
Availability	• Europe	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Uses	• Electrical Parts • Electronic Displays • Fluid Handling • Medical Devices • Medical/Healthcare Applications • Pharmaceuticals	--
Also Available In	• Latin America • North America	• Asia Pacific • Europe • Latin America • North America

Physical	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Density / Specific Gravity				
--	1.20	1.19 to 1.21	g/cm³	ASTM D792
--	1.20	1.17 to 1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	12	4.0 to 31	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	11	3.0 to 28	cm³/10min	ISO 1133
Molding Shrinkage				
Flow	--	0.60 to 0.63	%	ASTM D955
--	--	0.47 to 0.82	%	ISO 294-4
Across Flow : 3.20 mm	0.50 to 0.70	--	%	Internal Method
Flow : 3.20 mm	0.40 to 0.60	--	%	Internal Method
Water Absorption				ISO 62
Saturation, 23°C	0.12	0.044 to 0.50	%	
Equilibrium, 23°C, 50% RH	0.050	0.040 to 0.70	%	

Mechanical	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Tensile Modulus				
--	--	1160 to 2550	MPa	ASTM D638
-- [2]	2140	--	MPa	ASTM D638
--	--	1180 to 2660	MPa	ISO 527-1
--	2300	--	MPa	ISO 527-1/1

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Mechanical	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Tensile Strength				
Yield [3]	60.0	--	MPa	ASTM D638
Yield	--	42.8 to 61.0	MPa	ASTM D638
Yield	--	48.0 to 60.6	MPa	ISO 527-2
Yield	60.0	--	MPa	ISO 527-2/50
Break	--	43.0 to 66.0	MPa	ASTM D638
Break [3]	63.0	--	MPa	ASTM D638
Break	--	39.9 to 66.0	MPa	ISO 527-2
Break	62.0	--	MPa	ISO 527-2/50
Tensile Elongation				
Yield	--	4.8 to 6.4	%	ASTM D638
Yield [3]	6.3	--	%	ASTM D638
Yield	--	4.4 to 6.0	%	ISO 527-2
Yield	5.8	--	%	ISO 527-2/50
Break	--	96 to 150	%	ASTM D638
Break [3]	140	--	%	ASTM D638
Break	--	110 to 200	%	ISO 527-2
Break	130	--	%	ISO 527-2/50
Flexural Modulus				
50.0 mm Span [4]	2300	--	MPa	ASTM D790
--	--	1160 to 2510	MPa	ASTM D790
--	--	1580 to 2260	MPa	ISO 178
-- [5]	2250	--	MPa	ISO 178
Flexural Strength				
--	--	75.5 to 97.9	MPa	ASTM D790
--	--	58.0 to 92.0	MPa	ISO 178
-- [5, 6]	92.0	--	MPa	ISO 178
Yield	--	64.7 to 99.0	MPa	ASTM D790
Yield, 50.0 mm Span [4]	95.0	--	MPa	ASTM D790

Impact	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Charpy Notched Impact Strength				
--	--	7.6 to 71	kJ/m²	ISO 179
23°C [7]	10	--	kJ/m²	ISO 179/1eA
Notched Izod Impact				
--	--	5.0 to 1100	J/m	ASTM D256
-30°C	70	--	J/m	ASTM D256
23°C	850	--	J/m	ASTM D256
--	--	1.0 to 45	kJ/m²	ISO 180
-30°C [8]	8.0	--	kJ/m²	ISO 180/1A
-10°C [8]	6.0	--	kJ/m²	ISO 180/1A
23°C [8]	9.0	--	kJ/m²	ISO 180/1A
Instrumented Dart Impact				ASTM D3763
--	--	53.8 to 95.0	J	
23°C, Total Energy	77.0	--	J	

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Thermal	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	--	79.0 to 122	°C	ASTM D648
0.45 MPa, Unannealed, 3.20 mm	119	--	°C	ASTM D648
1.8 MPa, Unannealed	--	74.7 to 114	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	106	--	°C	ASTM D648
1.8 MPa, Unannealed	--	77.4 to 112	°C	ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm, 64.0 mm Span [8]	108	--	°C	ISO 75-2/Af
Vicat Softening Temperature				
--	--	91.0 to 131	°C	ASTM D1525
--	126	--	°C	ASTM D1525 [9] ISO 306/B120 [9]
--	125	--	°C	ISO 306/B50
--	--	92.0 to 133	°C	ISO 306
CLTE				
Flow	--	8.9E-5 to 1.2E-4	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	1.0E-4	--	cm/cm/°C	ASTM E831
Flow	--	5.8E-5 to 1.1E-4	cm/cm/°C	ISO 11359-2
Flow : -40 to 40°C	6.8E-5	--	cm/cm/°C	ISO 11359-2
Transverse	--	6.7E-5 to 1.1E-4	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	1.0E-4	--	cm/cm/°C	ASTM E831
Transverse	--	6.3E-5 to 1.1E-4	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.8E-5	--	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.23	0.23	W/m/K	ISO 8302

Electrical	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Surface Resistivity	--	2.0E+11 to 1.0E+15	ohms	ASTM D257
Volume Resistivity	--	1.5E+11 to 1.0E+15	ohms·cm	ASTM D257

Flammability	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Flame Rating (0.75 mm)	V-2	--		UL 94

Optical	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit	Test Method
Light Transmittance				ASTM D1003
--	--	84.0 to 88.0	%	
2540 µm	88.0	--	%	
Haze				ASTM D1003
--	--	0.500 to 4.18	%	
2540 µm	2.00	--	%	

Injection	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit
Drying Temperature	65 to 80	70 to 121	°C
Drying Time	3.0 to 5.0	4.0 to 5.1	hr
Suggested Max Moisture	0.020	0.020	%
Suggested Shot Size	40 to 80	60	%
Rear Temperature	245 to 260	244 to 266	°C
Middle Temperature	245 to 270	250 to 260	°C
Front Temperature	250 to 270	254 to 266	°C
Nozzle Temperature	250 to 270	254 to 260	°C
Processing (Melt) Temp	250 to 270	254 to 269	°C
Mold Temperature	45 to 60	52 to 77	°C
Back Pressure	0.100 to 0.500	0.300 to 0.354	MPa

Injection	XYLEX™ Resin HX7509HP - Europe	Generic PC+Polyester	Unit
Screw Speed	20 to 100	60	rpm
Vent Depth	0.013 to 0.020	0.017 to 0.018	mm

Injection Notes	
XYLEX™ Resin HX7509HP - Europe	• Drying Time (Cumulative): 8 hr
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Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 50 mm/min

[3] Type I, 50 mm/min

[4] 1.3 mm/min

[5] 2.0 mm/min

[6] at Break

[7] 80*10*4 sp=62mm

[8] 80*10*4 mm

[9] Rate A (50°C/h), Loading 2 (50 N)