



XYLEX™ Resin HX8300HP

Americas: COMMERCIAL

Medium flow, Transparent PC/Polyester alloy. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI), food contact compliant. EtO sterilizable.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	470	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	460	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D 638
Tensile Modulus, 50 mm/min	15400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	720	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	17100	kgf/cm ²	ASTM D 790
Hardness, Shore D, 10S reading	73	-	ASTM D 2240
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	54	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	>200	%	ISO 527
Tensile Modulus, 1 mm/min	1600	MPa	ISO 527
Flexural Stress, break, 2 mm/min	78	MPa	ISO 178
Flexural Modulus, 2 mm/min	1700	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	114	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	0	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	968	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	<1	kJ/m ²	ISO 180/1A



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IMPACT			
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	70	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	96	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	79	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.05E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ASTM E 831
Thermal Conductivity	0.23	W/m-°C	ISO 8302
CTE, -40°C to 40°C, flow	1.05E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.E-05	1/°C	ISO 11359-2
Ball Pressure Test, approximate maximum	85	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	92	°C	ISO 306
Vicat Softening Temp, Rate B/120	96	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	80	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 265°C/2.16kgf	15	g/10 min	ASTM D 1238
Density	1.17	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.49	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	15	cm ³ /10 min	ISO 1133



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OPTICAL			
Light Transmission, 2.54 mm	88	%	ASTM D 1003
Haze, 2.54 mm	<2	%	ASTM D 1003
Refractive Index	1.539	-	ISO 489
ELECTRICAL			
Volume Resistivity	>1.E+15	Ohm-cm	ASTM D 257
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS			
Glow Wire Flammability Index 750°C, passes at	1	mm	IEC 60695-2-12



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	65 - 75	°C
Drying Time	3 - 5	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	245 - 265	°C
Nozzle Temperature	245 - 265	°C
Front - Zone 3 Temperature	245 - 265	°C
Middle - Zone 2 Temperature	240 - 260	°C
Rear - Zone 1 Temperature	240 - 250	°C
Mold Temperature	45 - 60	°C
Back Pressure	0.2 - 0.5	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.013 - 0.02	mm