



Xylex* Resin HX7409HP

Asia Pacific: COMMERCIAL

Low 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.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	630	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	660	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D 638
Tensile Modulus, 50 mm/min	23400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	960	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	23200	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	65	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	135	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	93	MPa	ISO 178
Flexural Modulus, 2 mm/min	2180	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	101	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	8	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	866	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m ²	ISO 180/1A
Izod Impact, notched 63.5*12.7*3.2, 23°C	78	kJ/m ²	ISO 180/4A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	22	kJ/m ²	ISO 179/1eA

1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity.
All properties, except the melt volume rate are measured on injection moulded samples.
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose. Not to be used for part or tool design.
3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
4) Own measurement according to UL.





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THERMAL			
Vicat Softening Temp, Rate B/50	130	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	122	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	111	°C	ASTM D 648
CTE, -40°C to 95°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	127	°C	ISO 306
Vicat Softening Temp, Rate B/120	129	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	122	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	111	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Melt Flow Rate, 265°C/2.16kg	3	g/10 min	ASTM D 1238
Density	1.2	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.28	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	3	cm ³ /10 min	ISO 1133
OPTICAL			
Light Transmission	79	%	ASTM D 1003

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	70 - 90	°C
Drying Time	3 - 5	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	270 - 300	°C
Nozzle Temperature	265 - 295	°C
Front - Zone 3 Temperature	270 - 300	°C
Middle - Zone 2 Temperature	260 - 290	°C
Rear - Zone 1 Temperature	250 - 270	°C
Mold Temperature	45 - 80	°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

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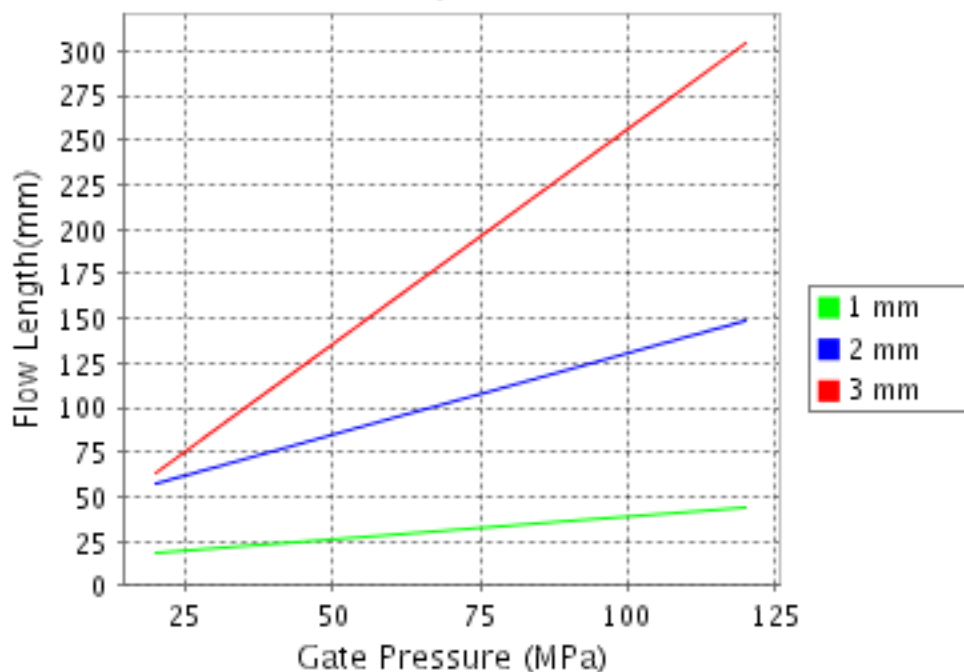
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

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Melt Temperature : 285°C

Mold Temperature : 65°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

® Moldflow is a registered trademark of the Moldflow Corporation.

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