XYLEX™ RESIN X7509HP

REGION ASIA

DESCRIPTION

PC+Polyester alloy. Houseware applications. USA/Europe Food contact. this grade will no longer be supported with biocompatibility information and should not be used for medical applications which require biocompatibility. Alternative grade HX7509HP.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	63	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6.3	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	135	%	ASTM D 638
Tensile Modulus, 50 mm/min	2140	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	95	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	62	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.8	%	ISO 527
Tensile Strain, break, 50 mm/min	133	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Stress, break, 2 mm/min	92	MPa	ISO 178
Flexural Modulus, 2 mm/min	2250	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	850	J/m	ASTM D 256
Izod Impact, notched, -30°C	70	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	77	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	126	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	119	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.04E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.04E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.8E-05	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
Vicat Softening Temp, Rate B/50	125	°C	ISO 306
Vicat Softening Temp, Rate B/120	126	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	106	°C	ISO 75/Ae

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	108	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 265°C/2.16kgf	12	g/10 min	ASTM D 1238
Density	1.2	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.12	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	11	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Yellow Card Link	E207780-485264	-	-
INJECTION MOLDING			
Drying Temperature	65 – 80	°C	
Drying Time	3 – 5	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 270	°C	
Nozzle Temperature	250 – 270	°C	
Front - Zone 3 Temperature	250 – 270	°C	
Middle - Zone 2 Temperature	245 – 270	°C	
Rear - Zone 1 Temperature	245 – 260	°C	
Mold Temperature	45 – 60	°C	
Back Pressure	0.1 – 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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