



XYLEX™ X7200 resin

Tuesday, 01 July 2014

General Information

Product Description

General purpose, UV stabilised Xylex grade

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• UV Stabilizer
Features	• General Purpose • Good UV Resistance
Uses	• General Purpose
Processing Method	• Injection Molding
Multi-Point Data	• Coefficient of Thermal Expansion vs. Temperature (ASTM E831) • Flexural DMA (ASTM D4065) • Shear DMA (ASTM D4065) • Specific Heat vs. Temperature (ASTM D3417) • Tensile Stress vs. Strain (ASTM D638) • Thermal Conductivity vs. Temperature (ASTM E1530) • Viscosity vs. Shear Rate (ASTM D3835)

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20		ASTM D792
Density	1.18	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	12	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	0.732	in ³ /10min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	0.0050 to 0.0070	in/in	Internal Method
Molding Shrinkage - Across Flow (0.126 in)	0.0050 to 0.0070	in/in	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	273000	psi	ASTM D638
Tensile Modulus	290000	psi	ISO 527-2/1
Tensile Strength ³ (Yield)	7980	psi	ASTM D638
Tensile Stress (Yield)	7980	psi	ISO 527-2/50
Tensile Strength ³ (Break)	8120	psi	ASTM D638
Tensile Stress (Break)	8120	psi	ISO 527-2/50
Tensile Elongation ³ (Yield)	5.0	%	ASTM D638
Tensile Strain (Yield)	5.0	%	ISO 527-2/5
Tensile Elongation ³ (Break)	140	%	ASTM D638
Tensile Strain (Break)	> 150	%	ISO 527-2/50



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Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus ⁴ (1.97 in Span)	285000	psi	ASTM D790
Flexural Modulus ⁵	290000	psi	ISO 178
Flexural Strength ^{5, 6}	10900	psi	ISO 178
Flexural Strength ⁴ (Yield, 1.97 in Span)	12200	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	17	ft-lb/in	ASTM D256
Notched Izod Impact Strength ⁷			ISO 180/1A
14°F	2.4	ft-lb/in ²	
73°F	3.8	ft-lb/in ²	
Instrumented Dart Impact (73°F, Total Energy)	841	in-lb	ASTM D3763
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 10 sec)	76		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.126 in	205	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.126 in	194	°F	
Heat Deflection Temperature ⁸			ISO 75-2/Ae
264 psi, Unannealed, 3.94 in Span	210	°F	
Vicat Softening Temperature	239	°F	ASTM D1525 ⁹
Vicat Softening Temperature	239	°F	ISO 306/B120
Ball Pressure Test ¹⁰ (221°F)	Pass		IEC 60695-10-2
CLTE - Flow (-40 to 104°F)	0.000058	in/in/°F	ASTM E831
CLTE - Flow (73 to 140°F)	0.000044	in/in/°F	ISO 11359-2
CLTE - Transverse (-40 to 104°F)	0.000058	in/in/°F	ASTM E831
CLTE - Transverse (73 to 140°F)	0.000044	in/in/°F	ISO 11359-2
Thermal Conductivity	1.6	Btu-in/hr/ft ² /°F	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohm	ASTM D257
Volume Resistivity	> 1.0E+15	ohm-cm	ASTM D257
Comparative Tracking Index (CTI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.118 in)	V-2		UL 94
Glow Wire Flammability Index (0.0394 in)	1380	°F	IEC 60695-2-12
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.557		ISO 489
Transmittance (100 mil)	88.0	%	ASTM D1003
Haze (100 mil)	1.1	%	ASTM D1003



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Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	180 to 200	°F
Drying Time	3.0 to 5.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 80	%
Rear Temperature	460 to 480	°F
Middle Temperature	470 to 510	°F
Front Temperature	480 to 520	°F
Nozzle Temperature	480 to 520	°F
Processing (Melt) Temp	480 to 520	°F
Mold Temperature	110 to 140	°F
Back Pressure	25.0 to 75.0	psi
Screw Speed	20 to 100	rpm
Vent Depth	0.00050 to 0.00080	in

Notes

¹ Typical properties: these are not to be construed as specifications.
² 2.0 in/min
³ Type I, 2.0 in/min
⁴ 0.051 in/min
⁵ 0.079 in/min
⁶ Break
⁷ 80*10*4
⁸ 120*10*4 mm
⁹ Rate B (120°C/h), Loading 2 (50 N)
¹⁰ Approximate maximum

