

# XYLEX™ X7509HP resin

Tuesday, May 05, 2015

## General Information

### Product 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.

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific
Features	• Food Contact Acceptable
Uses	• Household Goods
Agency Ratings	• EU Food Contact, Unspecified Rating • FDA Food Contact, Unspecified Rating
Processing Method	• Injection Molding

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20		ASTM D792
Density	1.20	g/cm <sup>3</sup>	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)	0.702	in <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	4.0E-3 to 6.0E-3	in/in	Internal Method
Molding Shrinkage - Across Flow (0.126 in)	5.0E-3 to 7.0E-3	in/in	Internal Method
Water Absorption (Saturation, 73°F)	0.12	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	311000	psi	ASTM D638
Tensile Modulus	334000	psi	ISO 527-2/1
Tensile Strength <sup>3</sup> (Yield)	8700	psi	ASTM D638
Tensile Stress (Yield)	8700	psi	ISO 527-2/50
Tensile Strength <sup>3</sup> (Break)	9140	psi	ASTM D638
Tensile Stress (Break)	8990	psi	ISO 527-2/50
Tensile Elongation <sup>3</sup> (Yield)	6.3	%	ASTM D638
Tensile Strain (Yield)	5.8	%	ISO 527-2/50
Tensile Elongation <sup>3</sup> (Break)	140	%	ASTM D638
Tensile Strain (Break)	130	%	ISO 527-2/50
Flexural Modulus <sup>4</sup> (1.97 in Span)	334000	psi	ASTM D790
Flexural Modulus <sup>5</sup>	327000	psi	ISO 178
Flexural Stress <sup>5, 6</sup>	13300	psi	ISO 178
Flexural Strength <sup>4</sup> (Yield, 1.97 in Span)	13800	psi	ASTM D790

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SABIC Innovative Plastics Asia Pacific - Polycarbonate + Polyester

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>7</sup> (73°F)	4.8	ft-lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
-22°F	1.3	ft-lb/in	
73°F	16	ft-lb/in	
Notched Izod Impact Strength <sup>8</sup>			ISO 180/1A
-22°F	3.8	ft-lb/in <sup>2</sup>	
73°F	4.3	ft-lb/in <sup>2</sup>	
Instrumented Dart Impact (73°F, Total Energy)	682	in-lb	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.126 in	246	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.126 in	223	°F	
Heat Deflection Temperature			
264 psi, Unannealed, 3.94 in Span <sup>9</sup>	223	°F	ISO 75-2/Ae
264 psi, Unannealed, 2.52 in Span <sup>10</sup>	226	°F	ISO 75-2/Af
Vicat Softening Temperature	259	°F	ASTM D1525 <sup>11</sup>
Vicat Softening Temperature			
--	257	°F	ISO 306/B50
--	259	°F	ISO 306/B120
CLTE - Flow (-40 to 104°F)	5.8E-5	in/in/°F	ASTM E831
CLTE - Flow			ISO 11359-2
-40 to 104°F	3.8E-5	in/in/°F	
73 to 140°F	5.0E-5	in/in/°F	
CLTE - Transverse (-40 to 104°F)	5.8E-5	in/in/°F	ASTM E831
CLTE - Transverse			ISO 11359-2
-40 to 104°F	3.8E-5	in/in/°F	
73 to 140°F	5.0E-5	in/in/°F	

## Processing Information

Injection	Nominal Value	Unit
Drying Temperature	150 to 175	°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	470 to 500	°F
Middle Temperature	470 to 520	°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	15.0 to 75.0	psi

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Injection	Nominal Value	Unit
Screw Speed	20 to 100	rpm
Vent Depth	5.0E-4 to 8.0E-4	in

## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

<sup>3</sup> Type I, 2.0 in/min

<sup>4</sup> 0.051 in/min

<sup>5</sup> 0.079 in/min

<sup>6</sup> Break

<sup>7</sup> 80\*10\*4 sp=62mm

<sup>8</sup> 80\*10\*4

<sup>9</sup> 120\*10\*4 mm

<sup>10</sup> 80\*10\*4 mm

<sup>11</sup> Rate B (120°C/h), Loading 2 (50 N)

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