

Styrolution PS 7120

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

FEATURES

- Excellent ESCR to foodstuffs and PUR foams
- Good low temperature impact strength
- High relative stiffness/potential to down gauge sheet
- UL Classification 94 HB (www.UL.com file E57787)

APPLICATIONS

- Refrigerator liners
- Freezer liners
- Picnic cooler liners
- Food processing equipment

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	2.3
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	2.1
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	2950
Tensile Modulus	ASTM D 638	psi x 10 ³	260
Elongation, Failure	ASTM D 638	%	55
Flexural Strength, 23 °C	ASTM D 790		6400
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	255
Hardness, Rockwell	ASTM D 785	L Scale	42
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	217
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	189
Coefficient of Linear Thermal Expansion	ASTM D 696	10 ⁻⁴ /°F	0.5
Electrical Properties			
Dielectric Constant at 106 CPS (1000000 Hz, 0,0394 in)	ASTM D 150	-	2.5
Dielectric Strength, 1/8"	ASTM D 149	kV/in	400
Optical Properties			
Specular Gloss, 60 °	ASTM D 523		10
Other Properties			
Density (ASTM)	ASTM D 792	g/cm ³	1.04

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Property, Test Condition	Standard	Unit	Values
Bulk Density (without external lubricant)	-	lb/ft ³	37 - 40
Processing			
Linear Mold Shrinkage	ASTM D 955	in/in	0.004-0.007
Melt Temperature Range	-	°F	360 - 530
Mold Temperature Range	-	°F	100 - 180