

Styrolution PS 5310

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

FEATURES

- Excellent ESCR
- Good Toughness
- Matte easily decorated finish

APPLICATIONS

- Food packaging
- Indoor signs
- Printed materials
- Retail displays

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	2.4
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	2900
Tensile Modulus	ASTM D 638	psi x 10 ³	255
Elongation, Failure	ASTM D 638	%	55
Flexural Strength, 23 °C	ASTM D 790		6500
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	255
Hardness, Rockwell	ASTM D 785	L Scale	44
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		15
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
Bulk Density (with external lubricant)	-	lb/ft ³	42 - 45
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