

Styrolution PS 5410

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

FEATURES

- Good printability
- Good environmental stress crack resistance
- Low Gels
- Trims Cleanly
- Low Gloss (matte finish)

APPLICATIONS

- Custom sheet applications
- Screen printing (Point of Purchase signs)
- Beverage and food signs
- Cosmetic packaging
- Medical packaging

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	3
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	2.8
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	2500
Tensile Modulus	ASTM D 638	psi x 10 ³	245
Elongation, Failure	ASTM D 638	%	50
Flexural Strength, 23 °C	ASTM D 790		5500
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	245
Hardness, Rockwell	ASTM D 785	L Scale	50
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	210
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	181
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			

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Property, Test Condition	Standard	Unit	Values
Density (ASTM)	ASTM D 792	g/cm ³	1.04
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