

Styrolution PS 1700

General Purpose Polystyrene (GPPS)

TECHNICAL DATASHEET

FEATURES

- High Flow
- High Heat resistance
- Free of zinc and oil additives

APPLICATIONS

- Foam extrusion
- Co-extruded gloss cap
- Injection molding

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	11
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	0.3
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	5700
Tensile Modulus	ASTM D 638	psi x 10 ³	430
Elongation, Failure	ASTM D 638	%	2
Flexural Strength, 23 °C	ASTM D 790		11000
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	480
Hardness, Rockwell	ASTM D 785	M scale	75
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	223
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	205
Coefficient of Linear Thermal Expansion	ASTM D 696	10 ⁻⁴ /°F	0.4
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	500
Optical Properties			
Refractive Index, Sodium D Line	ASTM D 542	-	1.59
Light Transmission at 550 nm	ASTM D 1003	%	88 - 90
Optical Density, 400–700 nm avg.	-	-	0.046
Other Properties			

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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			
Melt Temperature Range	-	°F	360 - 525
Mold Temperature Range	-	°F	100 - 180
Linear Mold Shrinkage	ASTM D 955	in/in	0.004-0.007