

Styrolution PS 3600/3601

General Purpose Polystyrene (GPPS)

TECHNICAL DATASHEET

FEATURES

- Exceptional flow characteristics
- Good for thin wall and complex parts
- USP Class VI certified

APPLICATIONS

- Single service cutlery and drinkware
- Medical disposables
- Masterbatch compounding

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	14
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	0.4
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	6200
Tensile Modulus	ASTM D 638	psi x 10 ³	460
Elongation, Failure	ASTM D 638	%	2
Flexural Strength, 23 °C	ASTM D 790	psi	11100
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	480
Hardness, Rockwell	ASTM D 785	M scale	74
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	209
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)		°F	173
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
Optical Density, 400–700 nm avg.		-	0.046
Other Properties			
Density	ASTM D 792	-	1.04

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Property, Test Condition	Standard	Unit	Values
Bulk Density (with external lubricant)		lb/ft ³	39 - 42
Bulk Density (without external lubricant)		lb/ft ³	37 - 40
Processing			
Linear Mold Shrinkage	ASTM D 955	in/in	0.004 to 0.007
Melt Temperature Range		°F	360 - 530
Mold Temperature Range		°F	100 - 180

Typical values for uncolored products

SUPPLY FORM

Styrolution PS 3600 can be supplied in two versions, with (grade name ending in 1) or without an external lubricant (grade name ending in 0) for improving pneumatic conveying. Styrolution PS resins are available in bulk railcar and bulk truckload quantities.

PRODUCT SAFETY

Styrolution PS resins are biologically and chemically inert, but improper disposal may present an ingestion hazard to wildlife. Where recycling of Styrolution PS resins is not possible, disposal to landfill or incineration in accordance with all applicable government laws and regulations is recommended. Please contact Styrolution Technical Service for further information on recycling and disposal of Styrolution resins.

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