

Styrolution PS 1611

General Purpose Polystyrene (GPPS)

TECHNICAL DATASHEET

FEATURES

- Good balance of flow, strength and set-up properties
- UL Classification 94 HB (www.UL.com file E57787)

APPLICATIONS

- Consumer electronics
- Housewares
- Cosmetic packaging
- Injection molding

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	6
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	6800
Tensile Modulus	ASTM D 638	psi x 10 ³	460
Elongation, Failure	ASTM D 638	%	2
Flexural Strength, 23 °C	ASTM D 790		14000
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	480
Hardness, Rockwell	ASTM D 785	M scale	76
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	222
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	202
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

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Other Properties			
Density (ASTM)	ASTM D 792	g/cm ³	1.04
Bulk Density (with external lubricant)	-	lb/ft ³	37 - 40
Bulk Density (without external lubricant)	-	lb/ft ³	42 - 45
Processing			
Melt Temperature Range	-	°F	375 - 525
Mold Temperature Range	-	°F	100 - 180
Linear Mold Shrinkage	ASTM D 955	in/in	0.004-0.007

Typical values for uncolored products

Please note that all processing data stated are only indicative and may vary depending on the individual processing complexities.

Please consult our local sales or technical representatives for details.

SUPPLY FORM

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.

DISCLAIMER

The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application or its processability. INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.