

Styrolution PS 5400/5401

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

FEATURES

- Good ESCR
- High Impact
- Low gloss (matte finish)
- USP Class VI certified
- UL Classification 94 HB (www.UL.com file E57787)

APPLICATIONS

- Custom sheet extrusion applications
- Dairy and deli containers
- Portion packaging, cups, lids, and plates
- Refrigerator accessories
- Disposable medical kits

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	2.6
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	2950
Tensile Modulus	ASTM D 638	psi x 10 ³	270
Elongation, Failure	ASTM D 638	%	55
Flexural Strength, 23 °C	ASTM D 790		6030
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	270
Hardness, Rockwell	ASTM D 785	L Scale	50
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	212
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	183
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		25
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

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 5400 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.

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.