

INEOS
STYROLUTION

Styrolution PS 5310

High Impact Polystyrene (HIPS)

TECHNICAL DATASHEET

FEATURES

- Excellent ESCR
- Good Toughness
- Matte easily decorated finish

APPLICATIONS

- Food packaging
- Indoor signs
- Printed materials
- Retail displays

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	2.4
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	2.1
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	2900
Tensile Modulus	ASTM D 638	psi x 10 ³	255
Elongation, Failure	ASTM D 638	%	55
Flexural Strength, 23 °C	ASTM D 790		6500
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	255
Hardness, Rockwell	ASTM D 785	L Scale	44
Thermal Properties			
Vicat Softening Temperature, B/1 (120 °C/h, 10N)	ASTM D 1525	°F	217
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	-	°F	189
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			
Density (ASTM)	ASTM D 792	g/cm ³	1.04

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Property, Test Condition	Standard	Unit	Values
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 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.