

# Styrolution PS 153F

General Purpose Polystyrene (GPPS)

## TECHNICAL DATASHEET

### DESCRIPTION

Styrolution PS 153F is general purpose polystyrene with high heat resistance and good flow properties. Styrolution PS 153F is free of internal lubricants, e.g. zinc stearate.

### FEATURES

- Free of internal lubricants
- Good flow characteristics

### APPLICATIONS

- XPS

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm <sup>3</sup> /10 min	7.5
<b>Mechanical Properties</b>			
Tensile Stress at Yield, 23 °C	ISO 527	MPa	45
Tensile Strain at Yield, 23 °C	ISO 527	%	1.5
Tensile Modulus	ISO 527	MPa	3050
Flexural Strength, 23 °C	ISO 178	MPa	70
Flexural Modulus, 23 °C	ISO 178	MPa	3250
Hardness, Ball Indentation	ISO 2039-1	MPa	150
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	101
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°C	99
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	90
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	80
Thermal Conductivity	ISO 22007-4	W/(m K)	0.16
<b>Electrical Properties</b>			
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 <sup>16</sup>
Surface Resistivity	IEC 62631-3-1	Ohm	>10 <sup>14</sup>
<b>Optical Properties</b>			

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Property, Test Condition	Standard	Unit	Values
Refractive Index, Sodium D Line	ISO 489	-	1.57
Light Transmission at 550 nm	ASTM D 1003	%	89.2
Haze	ASTM D 1003	%	1.2
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1040
<b>Processing</b>			
Melt Temperature Range	ISO 294	°C	180 - 280