

## Styrolution PS 454N HIPS

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Impact Modified

### Material Notes:

Styrolution PS 454N is an impact resistant polystyrene with a good balance of toughness, high flow, heat resistance and high gloss. Good balance of toughness, high flow, and heat resistance High gloss UL 94 HB Information provided by Styrolution

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styrolution-PS-454N-HIPS.php](http://www.lookpolymers.com/polymer_Styrolution-PS-454N-HIPS.php)

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	<= 0.10 % @Temperature 23.0 Â°C	<= 0.10 % @Temperature 73.4 Â°F	50% RH; ISO 62
Water Absorption at Saturation	<= 0.10 % @Temperature 23.0 Â°C	<= 0.10 % @Temperature 73.4 Â°F	ISO 62
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	ISO 294-4
Melt Flow	14 g/10 min @Load 5.00 kg, Temperature 200 Â°C	14 g/10 min @Load 11.0 lb, Temperature 392 Â°F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	90.0 MPa	13100 psi	ISO 2039-1
Tensile Strength, Yield	27.0 MPa	3920 psi	ISO 527
Elongation at Break	25 %	25 %	ISO 527
Elongation at Yield	1.4 %	1.4 %	ISO 527
Tensile Modulus	2.20 GPa	319 ksi	ISO 527
Flexural Strength	41.0 MPa	5950 psi	ISO 178
Flexural Modulus	2.30 GPa	334 ksi	ISO 178
Charpy Impact Unnotched	1.60 J/cm <sup>2</sup>	7.61 ft-lb/in <sup>2</sup>	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 Âµm/m-Â°C	44.4 Âµin/in-Â°F	ISO 11359
	0.170 W/m-K	1.18 BTU-in/hr-ft <sup>2</sup> -	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	82.0 °C	180 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	78.0 °C	172 °F	ISO 75
Vicat Softening Point	82.0 °C	180 °F	120°C/h; ASTM D 1525
	@Load 5.10 kg	@Load 11.2 lb	
	91.0 °C	196 °F	50°C/h; ISO 306
	@Load 1.02 kg	@Load 2.25 lb	
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+18 ohm-cm	>= 1.00e+18 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+13 ohm	>= 1.00e+13 ohm	IEC 60093
Dielectric Constant	2.5	2.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	0.00015	0.00015	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.00040	0.00040	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Processing Properties	Metric	English	Comments
Melt Temperature	180 - 260 °C	356 - 500 °F	ISO 294
Mold Temperature	40.0 °C	104 °F	ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

## Contact Songhan Plastic Technology Co.,Ltd.

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