

## Styrolution PS 456EB HIPS

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

### Material Notes:

Styrolution PS 456EB is a high flow, high impact polystyrene with a good heat resistance and a high stiffness, developed for injection blow molding applications, especially for bottle of yogurt. High flow Injection blow molding applications Information provided by Styrolution

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styrolution-PS-456EB-HIPS.php](http://www.lookpolymers.com/polymer_Styrolution-PS-456EB-HIPS.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 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	7.0 g/10 min @Load 5.00 kg, Temperature 200 Â°C	7.0 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	23.0 MPa	3340 psi	ISO 527
Elongation at Break	40 %	40 %	ISO 527
Elongation at Yield	1.5 %	1.5 %	ISO 527
Tensile Modulus	2.00 GPa	290 ksi	ISO 527
Flexural Strength	42.0 MPa	6090 psi	ISO 178
Flexural Modulus	2.10 GPa	305 ksi	ISO 178
Izod Impact, Notched (ISO)	9.00 kJ/m <sup>2</sup> @Temperature 23.0 Â°C	4.28 ft-lb/in <sup>2</sup> @Temperature 73.4 Â°F	ISO 180/A
Charpy Impact Unnotched	7.00 J/cm <sup>2</sup> @Temperature -30.0	33.3 ft-lb/in <sup>2</sup> @Temperature -22.0	ISO 179

Mechanical Properties	°C Metric	°F English	Comments
	12.0 J/cm <sup>2</sup>	57.1 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.10 J/cm <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	100 Åµm/m-°C	55.6 Åµin/in-°F	ISO 11359
Deflection Temperature at 0.46 MPa (66 psi)	85.0 °C	185 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	77.0 °C	171 °F	ISO 75
Vicat Softening Point	86.0 °C	187 °F	50°C/h; ISO 306
	@Load 5.10 kg	@Load 11.2 lb	
	94.0 °C	201 °F	50°C/h; ISO 306
	@Load 1.02 kg	@Load 2.25 lb	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+18 ohm-cm	>= 1.00e+18 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+14 ohm	>= 1.00e+14 ohm	IEC 60093
Dielectric Constant	2.5	2.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	155 kV/mm	3940 kV/in	Short Time; IEC 60243-1
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Dissipation Factor	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	10.0 - 60.0 °C	50.0 - 140 °F	ISO 294
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Contact Songhan Plastic Technology Co.,Ltd.

**Website : [www.lookpolymers.com](http://www.lookpolymers.com)**

**Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)**

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**