

## BASF Polystyrol® 143 E Polystyrene (Europe)

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Molded, Unreinforced

### Material Notes:

Medium strength, easy flowing general-purpose grade, suitable for blending with impact-modified Polystyrol, Styrolux and as a coextruded glossy capping layer. Data was collected by ISO methods and provided by BASF.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_BASF-Polystyrol-143-E-Polystyrene-Europe.php](http://www.lookpolymers.com/polymer_BASF-Polystyrol-143-E-Polystyrene-Europe.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	
Water Absorption	0.10 %	0.10 %	
Moisture Absorption at Equilibrium	0.10 %	0.10 %	
Linear Mold Shrinkage, Flow	0.0045 cm/cm	0.0045 in/in	
Melt Flow	10 g/10 min @Load 5.00 kg, Temperature 200 °C	10 g/10 min @Load 11.0 lb, Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	46.0 MPa	6670 psi	
Elongation at Break	2.0 %	2.0 %	
Tensile Modulus	3.30 GPa	479 ksi	
Charpy Impact Unnotched	1.70 J/cm <sup>2</sup>	8.09 ft-lb/in <sup>2</sup>	
Charpy Impact, Notched	0.300 J/cm <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	
Tensile Creep Modulus, 1 hour	3100 MPa	450000 psi	
Tensile Creep Modulus, 1000 hours	2200 MPa	319000 psi	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 µm/m-°C @Temperature 20.0 °C	44.4 µin/in-°F @Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	82.0 °C	180 °F	
Deflection Temperature at 1.8 MPa (264 psi)	72.0 °C	162 °F	
Vicat Softening Point	84.0 °C	183 °F	

Thermal Properties	Metric	English	Comments
Glass Transition Temp. Tg	85.0 °C	180 °F	
Flammability, UL94	HB @Thickness 3.18 mm	HB @Thickness 0.125 in	
Oxygen Index	18 %	18 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	
Dielectric Constant	2.5 @Frequency 100 Hz	2.5 @Frequency 100 Hz	
	2.5 @Frequency 1e+6 Hz	2.5 @Frequency 1e+6 Hz	
Dissipation Factor	0.000070 @Frequency 1e+6 Hz	0.000070 @Frequency 1e+6 Hz	
	0.000090 @Frequency 100 Hz	0.000090 @Frequency 100 Hz	
Comparative Tracking Index	375 V	375 V	

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