

## Polimeri Europa Edistir R 850E Polystyrene

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

### Material Notes:

Super high impact polystyrene with good heat resistance. Designed for sheet extrusion and thermoforming of deep drawn containers even diluted with high percentage of GP. Suitable for general injection molding of tough medium-walled articles. Designation: Thermoplastics ISO 2897-PS-I,G,093-03-10-18 Applications: Typical uses are thermoformed food packaging as disposable tumblers, flatwares, yoghurt cups, lids. Injection molding of technical items, shoe heels, reels. R 850E is certified UL94 HB "all colors" at 1.5 mm (UL file E83071). This grade in natural version complies by composition with the requirements set by the main Regulations for plastic materials intended for food contact (included the EEC Directive 90/128 and following amendments). Information provided by Polimeri Europa

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Polimeri-Europa-Edistir-R-850E-Polystyrene.php](http://www.lookpolymers.com/polymer_Polimeri-Europa-Edistir-R-850E-Polystyrene.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.650 g/cc	0.0235 lb/in <sup>3</sup>	ISO 60
Density	1.04 g/cc	0.0376 lb/in <sup>3</sup>	ISO 1183
Water Absorption	<= 0.10 %	<= 0.10 %	24 hours - 23°C; ISO 62
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	Internal Method
Melt Flow	4.0 g/10 min @Load 5.00 kg, Temperature 200 °C	4.0 g/10 min @Load 11.0 lb, Temperature 392 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell L	65	65	ISO 2039/2
Tensile Strength at Break	24.0 MPa	3480 psi	50 mm/min; ISO 527
Tensile Strength, Yield	21.0 MPa	3050 psi	50 mm/min; ISO 527
Elongation at Break	60 %	60 %	50 mm/min; ISO 527
Tensile Modulus	1.85 GPa	268 ksi	1 mm/min; ISO 527
Flexural Strength	38.0 MPa	5510 psi	2 mm/min; ISO 178
Izod Impact, Notched	1.25 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	2.34 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	ISO 180/4A
Izod Impact, Notched (ISO)	6.50 kJ/m <sup>2</sup> @Thickness 4.00 mm, Temperature -30.0 °C	3.09 ft-lb/in <sup>2</sup> @Thickness 0.157 in, Temperature -22.0 °F	ISO 180/1A

Mechanical Properties	Metric	English	Comments
	10.0 kJ/m <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Thickness 4.00 mm, Temperature 23.0 °C	@Thickness 0.157 in, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	90.0 µm/m-°C	50.0 µin/in-°F	ASTM D 696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	0.170 W/m-K	1.18 BTU-in/hr-ft <sup>2</sup> -°F	ISO 8302
Deflection Temperature at 1.8 MPa (264 psi)	85.0 °C	185 °F	120°C/h; ASTM D 648
Vicat Softening Point	91.0 °C	196 °F	50 N - 50°C/h; ISO 306/B
	99.0 °C	210 °F	10 N - 50°C/h; ISO 306/A
Flammability, UL94	HB	HB	UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Glow Wire Test	650 °C	1200 °F	IEC 60695-2-1
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	7.00e+15 ohm-cm	7.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.50e+15 ohm	1.50e+15 ohm	IEC 60093
Dielectric Constant	2.5	2.5	IEC 60250
	@Frequency 50 Hz	@Frequency 50 Hz	
Dielectric Strength	65.0 kV/mm	1650 kV/in	IEC 60243
Dissipation Factor	0.00030	0.00030	IEC 60250
	@Frequency 50 Hz	@Frequency 50 Hz	
Comparative Tracking Index	500 V	500 V	Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	210 - 240 °C	410 - 464 °F	Extrusion
	210 - 260 °C	410 - 500 °F	Injection Molding
Mold Temperature	20.0 - 60.0 °C	68.0 - 140 °F	Injection Molding

**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**