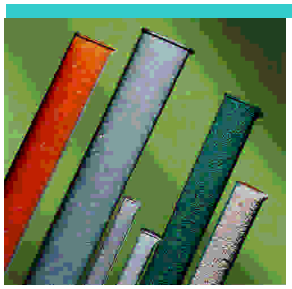
POLIMERI EUROPA



Edistir® RK
Polystyrene

TECHNICAL DATA SHEET

Product description

UL94 V-0, flame retarded, high impact polystyrene.

This grade is suitable for injection molding. It combines high mechanical strength, heat resistance and good processability.

Designation: Thermoplastics ISO 2897-PS-I,M,093-06-04-18

Applications

Typical applications are in the field of TV back covers, structural parts for business machines, painted moulded items for electronics.

Typical processing data

Injection molding:
- predrying recommended at 70°C for 2 h
- melt temperature 190 - 230°C
- mold temperature 20 - 60°C

General information

The natural version is certified UL94 V-0 at 2.2 mm (UL file E83071).

This grade may be supplied in natural or colored version upon request.

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RK

Properties	Test conditions	Test methods	Units	Values
General				
Density		ISO 1183	g/cm^3	**1.16**
Bulk density		ISO 60	g/cm^3	**0.7**
Water absorption	24 h - 23°C	ISO 62	%	**<0.1**
Rheological				
Melt flow rate MFR	200°C - 5 kg	ISO 1133	g/10 min	**5**
Mechanical				
Tensile stress at yield	50 mm/min	ISO 527	MPa	**20**
Tensile stress at break	50 mm/min	ISO 527	MPa	**23**
Tensile strain at break	50 mm/min	ISO 527	%	**40**
Tensile modulus	1 mm/min	ISO 527	MPa	**2000**
Flexural strength	2 mm/min	ISO 178	MPa	**39**
Izod impact strength, notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	**75**
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m^2	**5.5**
	-30°C - thickness 4 mm	ISO 180/1A	kJ/m^2	**-**
Rockwell hardness	L/M scale	ISO 2039/2	-	**-**
Thermal				
Vicat softening temperature	10 N - 50°C/h	ISO 306/A	°C	**99**
	50 N - 50°C/h	ISO 306/B	°C	**91**
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	**85**
Coefficient of linear thermal expansion		ASTM D 696	10^{-5}/°C	**9**
Thermal conductivity		ISO 8302	W/(K·m)	**0.17**
Moulding shrinkage		internal	%	**0.4 - 0.7**
Flammability				
Flame behaviour	thickness 2.2 mm	UL 94	class	**V-0**
Glow wire test (GWT)	thickness 1.6 mm	IEC 60695-2-1	°C	**850**
Electrical				
Surface resistivity		IEC 60093	ohm	**>1.5·10E+15**
Volume resistivity		IEC 60093	ohm·cm	**>7·10E+15**
Comparative tracking index (CTI)	solution A	IEC 60112	-	**400**
Dielectric strength		IEC 60243	kV/mm	**26**
Dielectric constant (relative permittivity)	50 Hz	IEC 60250	-	**2.5**
Dissipation factor	50 Hz	IEC 60250	-	**4·10E-4**

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