

RT 441M

Technical Data Sheet

Polystyrene

Edistir® RT 441M is a high impact polystyrene combining high toughness and stiffness with good flowability for easy processing.

Designed for injection moulding of technical parts, housings and covers.

Especially recommended for gas assisted technology.

Designation: Thermoplastics ISO 2897-PS-I,M,088-06-07-18

Applications

Edistir® RT 441M is suitable in a large variety of sectors such as:

- computer covers
- household appliances
- cabinet and back covers for electrical appliances
- in mix with RK 421Q for electrical boxes.

Typical processing data

Injection moulding:

- predrying normally not required
- melt temperature 210-260°C
- mould temperature 20-60°C

Certification

✓ UL 94

Edistir® RT 441M, as supplied in the original packaging, by composition is compliant to some existing regulations on plastic materials intended for food contact.

Storage

- ⚠ Store away from atmospheric agents and direct sunlight, away from sources of heat and light.
- 🕒 The product, if stored correctly, keeps its characteristics for at least fifteen months.

General information

Edistir® RT 441M is available in natural version.



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Property	Test Conditions	Test method	Units	Values
General				
Water absorption	24h - 23°C	ISO 62	%	<0,1
Density	-	ISO 1183	g/cm ³	1,04
Bulk density	-	ISO 60	g/cm ³	0,65
Rheological				
Melt flow rate	200°C - 5kg	ISO 1133	g/10'	7,5
Mechanical				
Tensile strain at break	50 mm/min	ISO 527	%	60
Tensile stress at break	50 mm/min	ISO 527	MPa	24
Tensile stress at yield	50 mm/min	ISO 527	MPa	22
Flexural strength	2 mm/min	ISO 178	MPa	45
Rockwell hardness	L/M	ISO 2039/2	-	L75
Tensile modulus	1 mm/min	ISO 527	MPa	2000
Thermal				
Coefficient of linear thermal expansion	-	ASTM D 696	10 ⁻⁵ /°C	9
Thermal conductivity	-	ISO 8302	W/(K.m)	0,17
Moulding shrinkage	-	ISO 294/4	%	0,4 - 0,7
Deflection temperature under load (annealed)	1,82 MPa - 120°C/h	ISO 75 A	°C	84
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	89
Vicat softening temperature	10 N - 50°C/h	ISO 306/A	°C	97
Flammability				
Flame behaviour	1,5 mm	UL 94	cl.	HB
Glow wire test (GWT)	1,6 mm	IEC 60695-2-10	°C	650
Electrical				
Dielectric constant (relative permittivity)	50 Hz	IEC 60250	-	2,5
Dissipation factor	50 Hz	IEC 60250	-	0,0003
Comparative tracking index (CTI)	Sol. A	IEC 60112	-	500
Surface resistivity	-	IEC 60093	10 ¹⁵ ohm	> 1,5
Volume resistivity	-	IEC 60093	10 ¹⁵ ohm.cm	> 7
Dielectric strength	-	IEC 60243	kV/mm	65

