

Edistir®



R 321P

Polystyrene

Technical Data Sheet

Edistir® R 321P is a high impact polystyrene combining easy flow and high stiffness.
Edistir® R 321P is suitable for injection moulded items with low thickness and high stiffness.

Designation: Thermoplastics ISO 2897-PS-I,M,083-12-04-30

Applications

Edistir® R 321P is suitable in a large variety of sectors such as:

- toys
- stationery
- small containers for packaging
- refrigerator components
- household articles
- disposable razors
- technical items.

Typical processing data

Injection moulding:

- predrying normally not required
- melt temperature 200-250°C
- mould temperature 20-60°C

Certification

✓ UL 94 ✓ IEC62323

Edistir® R 321P, 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® R 321P is available in different shades:

- natural
- white version - Versalis code 31630

For further information, please contact Versalis directly writing to info.styrenics@versalis.eni.com.

Edistir®



R 321P

Polystyrene

Technical Data Sheet

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'	15
Mechanical				
Tensile strain at break	50 mm/min	ISO 527	%	40
Tensile stress at break	50 mm/min	ISO 527	MPa	20
Tensile stress at yield	50 mm/min	ISO 527	MPa	26
Flexural strength	2 mm/min	ISO 178	MPa	45
Rockwell hardness	L/M	ISO 2039/2	-	L83
Tensile modulus	1 mm/min	ISO 527	MPa	2400
Izod impact strength, notched	-30°C - 4mm	ISO 180/1A	kJ/m ²	3,5
Izod impact strength, notched	+23°C - 4mm	ISO 180/1A	kJ/m ²	5
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	80
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	85
Vicat softening temperature	10 N - 50°C/h	ISO 306/A	°C	94
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	-	375
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

Please consult the relevant safety data sheet for more detailed information.

The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted.

Versalis is available to provide the guaranteed values for each product on demand.