

Edistir®



N 3910

Polystyrene

Technical Data Sheet

Edistir® N 3910 is a very easy flow general purpose polystyrene.

Used for injection of thin-walled, multi-cavity, very fast-cycle mouldings and sheet extrusion for glossy capping of HIPS sheets and in blends with HIPS or clear SBS.

Thanks to Edistir® N 3910, injected items will be bright and neutral coloured in line with the most sophisticated market needs.

Designation: Thermoplastics ISO 1622-PS,G,085-20.

Applications

Edistir® N 3910 is suitable in a large variety of sectors such as:

- food packaging containers
- cosmetics
- toys
- medical articles
- carrier for masterbatches.

Typical processing data

Injection moulding:

- predrying normally not required
- melt temperature 200-250°C
suggested temperature around 220°C
- mould temperature 10-50°C

Extrusion:

- melt temperature 210-240°C

Certification

✓ UL 94

Edistir® N 3910, 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

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

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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	1,05
Bulk density	-	ISO 60	g/cm ³	0,65
Rheological				
Melt flow rate	200°C - 5kg	ISO 1133	g/10'	27
Mechanical				
Tensile strain at break	5 mm/min	ISO 527	%	1,3
Tensile stress at break	5 mm/min	ISO 527	MPa	37
Flexural strength	2 mm/min	ISO 178	MPa	67
Rockwell hardness	L/M	ISO 2039/2	-	M80
Tensile modulus	1 mm/min	ISO 527	MPa	3200
Izod impact strength, notched	+23°C - 4mm	ISO 180/1A	kJ/m ²	1,7
Izod impact strength, notched	-30°C - 4mm	ISO 180/1A	kJ/m ²	1,5
Thermal				
Coefficient of linear thermal expansion	-	ASTM D 696	10 ⁻⁵ /°C	7
Thermal conductivity	-	ISO 8302	W/(K.m)	0,17
Moulding shrinkage	-	ISO 294/4	%	0,3 - 0,6
Deflection temperature under load (annealed)	1,82 MPa - 120°C/h	ISO 75 A	°C	82
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	83
Vicat softening temperature	10 N - 50°C/h	ISO 306/A	°C	89
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	-	0,0002
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	70

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.

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