

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.



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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

