Edistir®

versalis

N 3380

Technical Data Sheet

Polystyrene

Edistir® N 3380 is a high molecular weight general purpose polystyrene combining high heat resistance and good mechanical strength. Edistir® N 3380 is suitable for direct gassing extrusion, biaxially oriented film and sheet, glass clear sheets and panels.
Also used in injection moulding of medium wall-thickness transparent parts.
Thanks to Edistir® N 3380, injected items will be bright and neutral coloured in line with the most sophisticated market needs.

Designation: Thermoplastics ISO 1622-PS,G,105-03.

Applications

Edistir® N 3380 is suitable in a large variety of sectors such as:

- foamed packaging trays
- clear panels for shower cubicles
- insulation boards (XPS)
- BOPS
- clear moulded fridge components
- medical items.

Typical processing data

Extrusion:

- melt temperature 210-240°C

Injection moulding:

- predrying normally not required
- melt temperature 220-270°C
  suggested temperature around 240°C
- mould temperature 20-60°C

Certification

✓ UL 94

Edistir® N 3380, 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/cm³	1,05
Bulk density	-	ISO 60	g/cm³	0,65
Rheological				
Melt flow rate	200°C - 5kg	ISO 1133	g/10'	2
Mechanical				
Tensile strain at break	5 mm/min	ISO 527	%	2,5
Tensile stress at break	5 mm/min	ISO 527	MPa	49
Flexural strength	2 mm/min	ISO 178	MPa	91
Rockwell hardness	L/M	ISO 2039/2	-	M80
Tensile modulus	1 mm/min	ISO 527	MPa	3300
Izod impact strength, notched	+23°C - 4mm	ISO 180/1A	kJ/m²	1,9
Izod impact strength, notched	-30°C - 4mm	ISO 180/1A	kJ/m²	1,7
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	95
Vicat softening temperature	10 N - 50°C/h	ISO 306/A	°C	106
Vicat softening temperature	50 N - 50°C/h	ISO 306/B	°C	101
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	-	425
Surface resistivity	-	IEC 60093	10^15ohm	>1,5
Volume resistivity	-	IEC 60093	10^15ohm·cm	>7
Dielectric strength	-	IEC 60243	kV/mm	70