

Very easy flow general purpose polystyrene. N 39 10 belongs to the third generation of Edistir®GPPS. Used for injection of thin-walled, multi-cavity, very fast-cycle mouldings and sheet extrusion for glossy capping of HIPS and in blends with HIPS or clear SBS. Thanks to N 39 10, injected items will be brighter and neutral coloured in line with more sophisticated market needs.  
Designation: Thermoplastics ISO 1622-PS,G,085-20.

## Applications

Typical uses include cups, packaging containers for food and cosmetics, toys, medical articles. Thanks to its high flow, it is particularly suitable as a 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

## General information

This product in the natural version complies by composition with the requirements of the main Regulations for plastic materials intended to come into contact with food, including Regulation (EU) No 10/2011 and following amendments.

Property	Test Conditions	Test method	Units	Values
<b>General</b>				
Water absorption	24h - 23°C	ISO 62	%	<0,1
Density	-	ISO 1183	g/cm <sup>3</sup>	1,05
Bulk density	-	ISO 60	g/cm <sup>3</sup>	0,65
<b>Rheological</b>				
Melt flow rate	200°C - 5kg	ISO 1133	g/10'	27
<b>Mechanical</b>				
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	kJm <sup>2</sup>	1,7
Izod impact strength, notched	-30°C - 4mm	ISO 180/1A	kJm <sup>2</sup>	1,5
<b>Thermal</b>				
Coefficient of linear thermal expansion	-	ASTM D 696	10 <sup>-5</sup> /°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	ASTM D 648	°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
<b>Flammability</b>				
Flame behaviour	1,5 mm	UL 94	cl.	HB
Glow wire test (GWT)	1,6 mm	IEC 60695-2-1	°C	650
<b>Electrical</b>				
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 <sup>15</sup> ohm	>1,5
Volume resistivity	-	IEC 60093	10 <sup>15</sup> ohm cm	>7
Dielectric strength	-	IEC 60243	kV/mm	70

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

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