



TotalEnergies

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Polystyrene Impact 7240

Technical data sheet
High Impact Polystyrene
Produced in Europe

Description

POLYSTYRENE IMPACT 7240 is a very high impact polystyrene for the extrusion industry. This grade has been designed to be diluted with crystal polystyrene such as POLYSTYRENE CRYSTAL 1160, 1340, 1540 at high levels to obtain stiff and impact resistant sheet for thermoformed packaging.

The main applications are dairy sheet for Form-Fill-Seal, individual dairy pots, multilayer sheets in dilution with crystal polystyrene, cups, food trays, eggs boxes, disposables.

Characteristics

	Method	Unit	Value
Rheological properties			
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	4.5
Thermal properties			
Vicat softening point 10N (T° increase = 50°C/h)	ISO 306A50	°C	97
Vicat softening point 50N (T° increase = 50°C/h)	ISO 306B50	°C	87
HDT unannealed under 1.8 MPa	ISO 75-2A	°C	74
HDT annealed under 1.8 MPa	ISO 75-2A	°C	90
Coefficient of linear thermal expansion		mm/°C	9.10 E-5
Mechanical properties			
Notched Charpy impact strength	ISO 179/1eA	KJ/m ²	11
Notched Izod impact strength	ISO 180/1A	kJ/m ²	11
Tensile strength at yield	ISO 527-2	MPa	23
Tensile strength at break	ISO 527-2	MPa	21
Elongation at break	ISO 527-2	%	60
Tensile modulus	ISO 527-2	MPa	1950
Flexural modulus	ISO 178	MPa	1850
Rockwell hardness	ISO 2039-2		R 65
Electrical properties			
Dielectric strength		kV/mm	150
Surface resistivity	ISO IEC 93	Ohms	>10 E+13
Miscellaneous			
Density	ISO 1183	g/cm ³	1.04
Moulding shrinkage		%	0.4-0.7
Water absorption	ISO 62	%	<0.1

General Information

- Standard properties: All tests carried out at 23°C unless otherwise stated. Mechanical properties are measured on injection moulded tests specimens.
- Bulk density: bulk density is approximately 0.6 g/cm³.

Polystyrene