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POLYSTYRENE IMPACT 4440

Technical Data Sheet
High flow impact Polystyrene
Manufactured in Europe

Description

POLYSTYRENE IMPACT 4440 is a high impact polystyrene for the injection moulding of parts demanding good dimensional stability at high temperatures, particularly boxes, frames, front and back covers for television sets. In addition, the flow properties of this grade make it particularly suitable for the moulding of large parts and for use with techniques such as gas injection.

Applications

Television front and back covers, office equipment.

Properties

Rheological	Method	Unit	Value
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	10
Thermal			
Vicat softening point 10N (T° increase = 50°C/h)	ISO 306A50	°C	96
Vicat softening point 50N (T° increase = 50°C/h)	ISO 306B50	°C	88
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			
Notched Charpy impact strength	ISO 179/1eA	KJ/m²	10
Notched Izod impact strength	ISO 180/1A	kJ/m²	10
Tensile strength at yield	ISO 527-2	MPa	25
Tensile strength at break	ISO 527-2	MPa	20
Elongation at break	ISO 527-2	%	55
Tensile modulus	ISO 527-2	MPa	2050
Flexural modulus	ISO 178	MPa	2000
Rockwell hardness	ISO 2039-2		R 76
Electrical			
Dielectric strength		kV/mm	150
Surface resistivity	ISO IEC 93	Ohms	>10 E+13
Miscellaneous			
Density	ISO 1183	g/cm³	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