

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/m ²	10
Notched Izod impact strength	ISO 180/1A	kJ/m ²	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/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.
- Please refer to the safety data sheet (SDS) for handling and storage information. It is advisable to convert the product within six months after delivery provided storage conditions are used as given in the SDS of our product. SDS may be obtained from the website: www.totalpetrochemicals.biz
- Please contact our technical office for more details.

DISCLAIMER

Information contained in this publication is true and accurate at the time of publication and to the best of our knowledge. The nominal values stated herein are obtained using laboratory test specimens. Before using one of the products mentioned herein, customers and other users should take all care in determining the suitability of such product for the intended use, and particularly the conformity with current regulations. TOTAL PETROCHEMICALS do not recommend its polystyrene resins for use in any application in direct or indirect contact with human body fluids and tissues. The Companies within TOTAL PETROCHEMICALS do not accept any liability whatsoever arising from the use of this information or the use, application or processing of any product described herein. No information contained in this publication can be considered as a suggestion to infringe patents. The Companies disclaim any liability that may be claimed for infringement or alleged infringement of patents.



TOTAL PETROCHEMICALS RESEARCH FELUY
Zone Industrielle C
B-7181 Feluy
Belgium

Website: www.totalpetrochemicals.biz

