

Description

POLYSTYRENE CRYSTAL 1240 is a high molecular weight crystal polystyrene, used in dilution with high impact polystyrene grades such as POLYSTYRENE IMPACT 7240. In dilution, POLYSTYRENE CRYSTAL 1240 gives excellent processing characteristics in both extrusion and thermoforming with good finished product dimensional stability and mechanical properties. POLYSTYRENE CRYSTAL 1240 can be used pure in injection moulding or by extrusion and in-line thermoforming.

Applications

Thermoformed packaging by dilution with a high impact (7240), foamed trays by direct gassing (in-line thermoforming), shower screens.

Properties

Rheological	Method	Unit	Value
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	2.6
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	92
HDT unannealed under 1.8 MPa	ISO 75-2A	°C	76
HDT annealed under 1.8 MPa	ISO 75-2A	°C	89
Coefficient of linear thermal expansion		mm/°C	7.10 E-5
Mechanical			
Unnotched Charpy impact strength	ISO 179/1eA	KJ/m ²	8
Tensile strength at break	ISO 527-2	MPa	44
Elongation at break	ISO 527-2	%	3
Tensile modulus	ISO 527-2	MPa	3100
Flexural modulus	ISO 178	MPa	2900
Rockwell hardness	ISO 2039-2		L 70
Electrical			
Dielectric strength		kV/mm	135
Surface resistivity	ISO IEC 93	Ohms	>10 E+14
Miscellaneous			
Density	ISO 1183	g/cm ³	1.05
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 for further information.
- 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.totalrefiningchemicals.com

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. Unless specifically indicated, the products mentioned herein are not suitable for applications in the pharmaceutical or medical sector. The Companies within Total Refining & Chemicals 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.