



SAFFRON GROUP

Polystyrene Crystal 1160

Product Specification

DESCRIPTION

Polystyrene Crystal 1160 is a high heat resistance, high molecular weight crystal polystyrene mainly for the extrusion industry. Most notably for the production of bi-oriented polystyrene (BOPS). It is particularly useful in the production of sheet for food packaging and insulation board made by direct gassing, where it gives expanded sheets with high mechanical properties.

Polystyrene Crystal 1160 can be used pure for the production of transparent cups or in dilution with Polystyrene Impact 7240 for the extrusion of sheet for hot-fill thermoforming applications.

APPLICATIONS

Foamed trays, shower screens, high heat resistant thermoformed products, transparent cups, XPS.

PROPERTIES

RHEOLOGICAL	METHOD	UNIT	VALUE
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	2.4
THERMAL			
Vicat softening point 10N (T° increase = 50°C/h)	ISO 306A50	°C	105
Vicat softening point 50N (T° increase = 50°C/h)	ISO 306B50	°C	101
HDT unannealed under 1.8MPa	ISO 75-2A	°C	83
HDT annealed under 1.8MPa	ISO 75-2A	°C	97
Coefficient of linear thermal expansion		mm/°C	7.10 E-5
MECHANICAL			
Notched Charpy impact strength	ISO 179/1eA	KJ/m2	8
Tensile strength at break	ISO 527-2	Mpa	48
Elongation at Break	ISO 527-2	%	3
Tensile modulus	ISO 527-2	Mpa	3200
Flexural modulus	ISO 178	p	2900
Rockwell hardness	ISO 2039-2		L70

FOR MORE INFORMATION :

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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 test 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.

Technical Disclaimer

The values reported in this technical data sheet are the results of tests carried out in accordance with standard test procedures in a laboratory environment. Actual properties may vary depending on batch and extrusion conditions. Therefore, these values should not be used for specification purposes. Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question, and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suitable for, and the information is applicable to, the user's specific application. Muntajat does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, expressed or implied, or allegedly arising from any usage of any trade or from any course of dealing, in connection with the use of the information contained herein or the product itself. The user expressly assumes all risks and liabilities, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Trademarks may not be used in any manner other than expressly authorized in a written agreement and no trademark or license rights of any kind are granted hereunder, by implication or otherwise.

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