+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

TOTAL

Refining & Chemicals
Polymers

POLYSTYRENE CRYSTAL 1070

Technical Data Sheet
High heat resistance, High Molecular Weight
Crystal Polystyrene
Manufactured in Europe

Description

POLYSTYRENE CRYSTAL 1070 is a high heat resistance, high molecular weight crystal polystyrene used in extrusion. It is particularly designed for the production of foam sheet and OPS sheet and film.
The high molecular weight gives a high viscosity which gives stable output at the die during direct gassing and good mechanical properties which give strength to both crystal sheets and direct gassed sheets.

Applications

Clamshells for fast food, meat trays, insulation board, OPS sheet, shower screens.

Properties

Rheological	Method	Unit	Value
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	1.6
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 1.8 MPa	ISO 75-2A	°C	82
HDT annealed under 1.8 MPa	ISO 75-2A	°C	96
Coefficient of linear thermal expansion		mm/°C	7.10 E-5
Mechanical			
Unnotched 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	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/cm³	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.

Polystyrene