



TotalEnergies

Refining & Chemicals
Polymers

Description

POLYSTYRENE IMPACT 6540 is an easy flowing, high impact polystyrene with a good balance of mechanical and thermal properties. This resin combines physical properties such as the flow necessary for large or complex mouldings, the impact resistance for good mechanical properties in thin wall sections and good thermal properties for articles subjected to elevated temperatures in use. The combination of properties also offers high productivity.

POLYSTYRENE IMPACT 6540 satisfies the requirements of a wide range of moulding applications.

The main applications are toys, television housing, food packaging, refrigerator, computer keyboards, office equipment, household items...

Characteristics

	Method	Unit	Value
Rheological properties			
Melt flow index (200°C-5kg)	ISO 1133 H	g/10mn	11.5
Thermal properties			
Vicat softening point 10N (T° increase = 50°C/h)	ISO 306A50	°C	92
Vicat softening point 50N (T° increase = 50°C/h)	ISO 306B50	°C	83
HDT unannealed under 1.8 MPa	ISO 75-2A	°C	68
HDT annealed under 1.8 MPa	ISO 75-2A	°C	80
Coefficient of linear thermal expansion		mm/°C	9.10 E-5
Mechanical properties			
Notched Izod impact strength	ISO 180/1A	kJ/m ²	9.5
Tensile strength at yield	ISO 527-2	MPa	25
Tensile strength at break	ISO 527-2	MPa	20
Elongation at break	ISO 527-2	%	45
Flexural modulus	ISO 178	MPa	2100
Rockwell hardness	ISO 2039-2		R 78
Electrical properties			
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

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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.

Handling and storage

Please refer to the safety data sheet (SDS) for handling and storage information. It is advisable to convert the product within one year after delivery provided storage conditions are used as given in the SDS of our product. SDS may be obtained from the website: www.polymers.totalenergies.com.

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