

# TOTAL Polystyrene Impact 3450

High Impact Polystyrene  
TOTAL Refining & Chemicals

Message:

POLYSTYRENE IMPACT 3450 is a high impact polystyrene with high heat resistance, good flow, high stiffness and good aesthetics. With such an ideal balance of properties, POLYSTYRENE IMPACT 3450 is well suited for the fabrication of heat resistant items by injection molding and extrusion-thermoforming. In injection molding, the combination of good flow and high heat resistance of POLYSTYRENE IMPACT 3450 makes short cycle times possible. In extrusion-thermoforming, POLYSTYRENE IMPACT 3450 is perfectly designed for hot-fill applications.

General Information	
UL YellowCard	E72824-463539
Features	Fast Molding Cycle
	Food Contact Acceptable
	Good Flow
	High Heat Resistance
	High Stiffness
Uses	Cups
	Electrical/Electronic Applications
	Food Packaging
	Household Goods
	Toys
Agency Ratings	EC 1907/2006 (REACH)
Forms	Pellets
Processing Method	Extrusion
	Injection Molding
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ISO 1133
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4
Water Absorption (23°C, 24 hr)	< 0.10	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	77		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2250	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	32.5	MPa	
Break	28.0	MPa	

Tensile Strain (Break)	55	%	ISO 527-2
Flexural Modulus	2250	MPa	ISO 178
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength	8.0	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact Strength	8.0	kJ/m <sup>2</sup>	ISO 180/1A
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed	77.0	°C	
1.8 MPa, Annealed	94.0	°C	
Vicat Softening Temperature			
--	103	°C	ISO 306/A50
--	95.0	°C	ISO 306/B50
CLTE - Flow	9.1E-5	cm/cm/°C	ISO 11359-2
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	> 1.0E+14	ohms	IEC 60093
Electric Strength	150	kV/mm	IEC 60243-1
<b>Optical</b>	<b>Nominal Value</b>		<b>Test Method</b>
Gloss (60°)	80		Internal Method

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

