# **TOTAL Polystyrene Impact 3441**

## High Impact Polystyrene

## **TOTAL Refining & Chemicals**

#### Message:

Polystyrene Impact 3441 is a high heat resistant polystyrene for injection molding application. It is recommended for manufacturing of articles which require good dimensional stability at elevated temperatures.

Applications:

TV Cover

Office Automation

**Electrical and Electronic** 

Toy

General Information			
UL YellowCard	E314268-100063392	E472299-102068889	
Features	Good dimensional stability		
	Heat resistance, high		
Uses	Protective cover		
	Electrical/Electronic Applications		
	Shell		
	Toys		
Agency Ratings	EC 1907/2006 (REACH)		
UL File Number	E314268		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm³	ASTM D792
Apparent Density <sup>1</sup>	0.60	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Spiral Flow <sup>2</sup>	48.0	cm	ASTM D3123
Molding Shrinkage - Flow	0.40 - 0.70	%	ASTM D955
Water Absorption (24 hr)	0.070	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	99		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 23°C, Injection Molded)	29.0	МРа	ASTM D638
Tensile Elongation (Break, 23°C, Injection Molded)	65	%	ASTM D638
Flexural Modulus (23°C, Injection Molded)	2100	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact (23°C, Injection				
Molded)	95	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Vicat Softening Temperature	99.0	°C	ASTM D1525 <sup>3</sup>	
CLTE - Flow	9.1E-5	cm/cm/°C	ASTM D696	
Heat Distortion	81	°C	ASTM D648	
Electrical	Nominal Value	Unit	Test Method	
Surface Resistivity	> 1.0E+14	ohms	IEC 60093	
Dielectric Strength	150	kV/mm	ASTM D149	
Injection	Nominal Value	Unit		
Rear Temperature	150 - 180	°C		
Middle Temperature	170 - 210	°C		
Front Temperature	190 - 230	°C		
Nozzle Temperature	210 - 250	°C		
Injection instructions				
Zone 4 Temperature: 200 to 240°C				
NOTE				
	Bulk Density: Bulk Density of all			
	Natural grades is approximately 0.6			
1.	g/cm³			
2.	Mold temperature: 220°C			
3.	速率 A (50°C/h), 压 力1 (10N)			

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