

## Description

TOTAL Petrochemicals 945 is a super high impact polystyrene designed for injection molding applications requiring superior toughness. This polymer has excellent gloss, impact and falling dart properties, allowing design engineers to use it instead of more expensive engineering polymers.

## Applications

Industrial guards, appliance housings, toys, and industrial spools and ABS replacement applications.

## General Information

- This material complies with FDA requirements as described in 21 CFR §177.1640.
- This material holds Underwriters Laboratory recognition 94HB; see UL File E55470 at [www.UL.com](http://www.UL.com).
- USP Class IV
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

## Properties

Rheological Properties	ASTM Test	Unit	Typical Value
Melt Flow (200°C-5kg)	D-1238	g/10mn	9.0
<b>Thermal Properties</b>			
Heat Distortion - Annealed	D-648	°F	190
Vicat Softening	D-1525	°F	202
<b>Impact Properties</b>			
Falling Dart	D-3029	in-lb	140
Izod - notched	D-256	ft-lbs/in	2.6
<b>Tensile Properties</b>			
Strength	D-638	psi	3,100
Modulus	D-638	psi (10 <sup>5</sup> )	2.8
Elongation	D-638	%	55
<b>Flexural Properties</b>			
Strength	D-790	psi	5,600
Modulus	D-790	psi (10 <sup>5</sup> )	3.1
<b>Other Properties</b>			
Gloss	D-523	60°	90
Density		g/cm <sup>3</sup>	1.04
Linear Shrinkage	D-955	in/in	.004 - .007
Moisture		%	<0.1

10/2010

Polystyrene



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All tests were run under laboratory conditions. ASTM (where applicable) testing procedures. The data are intended as a general guide only and do not necessarily represent results that may be obtained elsewhere. The use of these products must be guided by the user's own methods for selection of proper formulation. TOTAL PETROCHEMICALS USA, INC. disclaims any responsibility for misuse or misapplication of its products. TOTAL PETROCHEMICALS USA, INC. MAKES NO WARRANTY OF MERCHANTABILITY AND THERE IS NO WARRANTY THAT GOODS SUPPLIED SHALL BE FIT FOR ANY PARTICULAR PURPOSE. TOTAL PETROCHEMICALS USA, INC. liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited at customer option to replacement of non-performing goods or payment not to exceed the purchase price plus transportation charges thereon in respect to any material which damage is claimed.