



**TotalEnergies**

TotalEnergies Petrochemicals & Refining USA, Inc.  
Polymers Americas

# Polystyrene 844E

Technical Data Sheet  
Polystyrene - Impact  
Produced in the United States

Rev: Sept 2021

## Description

**Polystyrene 844E:** Is high impact polystyrene specially designed for the custom sheet market. This polymer produces tough, ductile sheet with a rich matte finish. 844E is specially formulated to minimize die buildup.

### Application:

- This low gloss resin is an excellent choice for printing and thermoforming applications.
- The impact and tensile properties are preferred in deep draw and thermoforming 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 VI
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

## Characteristics

	Method	Unit	Typical Value
<b>Rheological Properties</b>			
Melt Flow (200°C-5kg)	D-1238	g/10mn	3.0
<b>Mechanical Properties</b>			
Falling Dart	D-3029	in-lb	110
Izod - notched	D-256	ft-lbs/in	2.4
Tensile Strength	D-638	psi	3,200
Tensile Modulus	D-638	psi (10 <sup>5</sup> )	2.8
Elongation	D-638	%	55
Flexural Strength	D-790	psi	6,200
Flexural Modulus	D-790	psi (10 <sup>5</sup> )	2.8
<b>Thermal Properties</b>			
Heat Distortion - Annealed	D-648	°F	199
Vicat Softening	D-1525	°F	212
<b>Other Physical Properties</b>			
Gloss	D-523	60°	63
Density		g/cm <sup>3</sup>	1.04
Linear Shrinkage	D-955	in/in	.004 - .008
Moisture		%	<0.1

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Polystyrene

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 TotalEnergies products must be guided by the users own methods for selection of proper formulation. TotalEnergies Petrochemicals & Refining USA, Inc. disclaims any responsibility for misuse or misapplication of its products. TotalEnergies MAKES NO WARRANTY OF MERCHANTABILITY AND THERE IS NO WARRANTY THAT GOODS SUPPLIED SHALL BE FIT FOR ANY PARTICULAR PURPOSE. TotalEnergies' 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.