

Technical Data Sheet
Polystyrene - Impact
Produced in the United States

TotalEnergies Petrochemicals & Refining USA, Inc. Polymers Americas

Description

Polystyrene 975E: Is a high-impact polystyrene designed for extrusion/thermoforming applications. The good environmental stress crack resistance (ESCR) properties of 975E dictate its use for dairy applications that are subjected to high butterfat. The matte finish of 975E makes it useful in a variety of custom sheet applications. Other features include excellent processability, low gloss, and FDA compliance.

Application:

- Dairy ESCR application
- Hot drink lids
- Lithographic printing
- Refrigeration liners

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.
- USP Class VI
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

Characteristics

	Method	Unit	Typical Value
Rheological Properties			
Melt Flow (200°C-5kg)	D-1238	g/10mn	2.8
Mechanical Properties			
Falling Dart	D-3029	in-lb	105
Izod - notched	D-256	ft-lbs/in	2.2
Tensile Strength	D-638	psi	2,900
Tensile Modulus	D-638	psi (10 ⁵)	2.3
Elongation	D-638	%	55
Flexural Strength	D-790	psi	5,800
Flexural Modulus	D-790	psi (10 ⁵)	2.7
Thermal Properties			
Heat Distortion - Annealed	D-648	°F	197
Vicat Softening	D-1525	°F	210
Other Physical Properties			
Gloss	D-523	60°	60
Density		g/cm ³	1.04
Linear Shrinkage	D-955	in/in	.004007
Moisture		%	<0.1