Formolene® E927

Tuesday, November 5, 2019

Formosa Plastics Corporation, U.S.A. - High Density (HMW) Polyethylene

General Information

Product Description

Formolene® E927 is a high molecular weight grade of HDPE designed for high drawdown to produce thin films with good processing and physical properties. Formolene® E927 is well balanced in overall physical properties and provides good stiffness for thin gauge film applications.

Formolene® E927 meets all requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles intended for direct food contact.

Suggested Applications:

- T-Shirt Bags
- Trash Can Liner and Heavy Duty Bags
- Multi-Wall Bag Liners
- Merchandise Bags

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Food Contact Acceptable • Good Drawdown	• Good Processability • Good Stiffness	• High Molecular Weight
Uses	• Bags • Film	• Heavy-duty Bags • Laundry Bags	• Liners
Agency Ratings	• EC 1907/2006 (REACH)	• FDA 21 CFR 177.1520	
Forms	• Pellets		
Processing Method	• Film Extrusion		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm³	ASTM D1505
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.070	g/10 min	
190°C/21.6 kg	12	g/10 min	
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	1	mil	
Secant Modulus - 1% Secant, MD (0.50 mil, Blown Film)	74000	psi	ASTM D882
Secant Modulus - 1% Secant, TD (0.50 mil, Blown Film)	132000	psi	ASTM D882
Tensile Strength - MD (Break, 0.50 mil, Blown Film)	9300	psi	ASTM D882
Tensile Strength - TD (Break, 0.50 mil, Blown Film)	6700	psi	ASTM D882
Tensile Elongation - MD (Break, 0.50 mil, Blown Film)	310	%	ASTM D882
Tensile Elongation - TD (Break, 0.50 mil, Blown Film)	540	%	ASTM D882
Dart Drop Impact (0.50 mil, Blown Film)	370	g	ASTM D1709
Elmendorf Tear Strength - MD (0.50 mil, Blown Film)	16	g	ASTM D1922
Elmendorf Tear Strength - TD (0.50 mil, Blown Film)	190	g	ASTM D1922
Thermal	**Nominal Value**	**Unit**	**Test Method**
Melting Temperature	268	°F	DSC
Additional Information	**Nominal Value**	**Unit**	
Blow-up Ratio	4		

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Notes

[1] Typical properties: these are not to be construed as specifications.