DOW™ LDPE 432E
Low Density Polyethylene Resin

Overview

DOW LDPE 432E is a high clarity resin designed for lamination film and clarity overwrap applications. This resin contains slip and antiblock additives. When properly fabricated, this product displays excellent processability and draw down, and a very good balance of film impact resistance, tensile strength and tear resistance.

Main Applications:

- Lamination films
- Food packaging films

Complies with:

- U.S. FDA 21 CFR 177.1520(c)2.2
- EU, No 10/2011

Consult the regulations for complete details.

Additive

- Antiblock: 1800 ppm
- Slip: 330 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.925	g/cm³	0.925	g/cm³	ASTM D792
Base Density [1]	0.925	g/cm³	0.925	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Coefficient of Friction					ASTM D1894
vs. Itself - Dynamic	0.10 to 0.30		0.10 to 0.30		
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2	mil	50	µm	
Secant Modulus					ASTM D882
2% Secant, MD : 2.0 mil (50 µm)	27600	psi	190	MPa	
2% Secant, TD : 2.0 mil (50 µm)	29000	psi	200	MPa	
Tensile Strength					ASTM D882
MD : Yield, 2.0 mil (50 µm)	1450	psi	10.0	MPa	
TD : Yield, 2.0 mil (50 µm)	1600	psi	11.0	MPa	
MD : Break, 2.0 mil (50 µm)	3190	psi	22.0	MPa	
TD : Break, 2.0 mil (50 µm)	2900	psi	20.0	MPa	
Tensile Elongation					ASTM D882
MD : Break, 2.0 mil (50 µm)	450	%	450	%	
TD : Break, 2.0 mil (50 µm)	650	%	650	%	
Dart Drop Impact (2.0 mil (50 µm))	110	g	110	g	ASTM D1709A
Elmendorf Tear Strength [2]					ASTM D1922
MD : 2.0 mil (50 µm)	500	g	500	g	
TD : 2.0 mil (50 µm)	400	g	400	g	
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°, 1.97 mil (50.0 µm))	67		67		ASTM D2457
Haze (1.97 mil (50.0 µm))	9.00	%	9.00	%	ASTM D1003

Extrusion Notes

Fabrication Conditions for Blown Film:

- Blow-up Ratio: 1.5 - 3
- Melt Temperature: 170 to 210°C

Form No. 400-00234759en
Rev: 2014-11-05

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

[2] Method B

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This document is intended for use within Europe

Published: 2013-09-30

Form No. 400-00234759en
Rev: 2014-11-05