Technical Data Sheet

DOW™ LDPE 352E REN Low Density Polyethylene Resin

Description

DOW™ LDPE 352E REN Low Density Polyethylene Resin is a high clarity resin designed for clarity over wrap applications. This resin does contain erucamide slip and antiblock additives. It can be readily extruded using conventional blown film techniques utilizing melt temperatures between 160 and 175°C.

Sustainability Attribute:

Ecolibrium™ Bio-based materials by Dow

Main Characteristics

- Excellent processability and draw down
- Outstanding toughness and impact properties
- Superior optical properties
- Excellent tensile and tear strength

Applications

- Light-produce bags
- Soft goods packaging
- Textile packaging
- Good optical general purpose bags
- Hygiene films
- Food packaging films

Complies with

- EU, No 10/2011
- U.S. FDA 21 CFR 177.1520(c)2.2
- U.S. FDA-DMF
- Canadian HPFB No Objection (with limitations)
- ISCC PLUS certification for bio-circular plastics

Consult the regulations for complete details.

Additive

- Antiblock: Yes
- Erucamide slip: Yes
- Processing aid: No

Properties[1]

Physical	Nominal Value	Unit	Test Method[2]
Density	0.925	g/cm³	ASTM D792
Melt Index (190°C/2.16kg)	2.0	g/cm³	ISO 1133
Mechanical			
Coefficient of Friction vs. Itself-Dynamic	0.15 to 0.20		ASTM D1894

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials
   ISO: International Standardization Organization

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Properties (Cont.)

Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	50	µm	
Secant Modulus			ASTM D882
2% Secant, MD: 2.0 mil (50 µm)	190	MPa	
2% Secant, TD: 2.0 mil (50 µm)	210	MPa	
Tensile Strength			ASTM D882
MD: Yield, 2.0 mil (50 µm)	10.0	MPa	
TD: Yield, 2.0 mil (50 µm)	11.0	MPa	
MD: Break, 2.0 mil (50 µm)	22.0	MPa	
TD: Break, 2.0 mil (50 µm)	20.0	MPa	
Tensile Elongation			ASTM D882
MD Break: 2.0 mil (50 µm)	450	%	
TD Break: 2.0 mil (50 µm)	650	%	
Dart Drop Impact (2.0 mil (50 µm))	110	g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD: 2.0 mil (50 µm)	450	g	
TD: 2.0 mil (50 µm)	350	g	
Thermal			
Vicat Softening Temperature	96.0	°C	ISO 306/A
Optical			
Gloss (20°, 1.97 mil (50 µm)	60		ASTM D2457
Haze (1.97 mil (50 µm)	8.00	%	ASTM D1003
Extrusion			
Melt Temperature	160 to 175	°C	
Extrusion Notes			
Blow-up Ratio: 1:2.5			

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b. use in cardiac prosthetic devices regardless of the length of time involved (“cardiac prosthetic devices” include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
c. use as a critical component in medical devices that support or sustain human life;
d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction; or
e. use as an ingredient of a pharmaceutical injectable application.

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