DOW™ LDPE 611A

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- A shrink film resin with good optics for packaging applications
- Optimum gauge range: 1.0-3.0 mil
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
- Complies with U.S. FDA-DMF
- Complies with Canadian HPFB No Objections(With Limitations)
- Complies with EU, No 10/2011
- Consult the regulations for complete details.

General			
Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Additive	• Antiblock: 1245 ppm	• Processing Aid: No	• Slip: No
Agency Ratings	• DMF Unspecified Rating • EU No 10/2011	• FDA 21 CFR 177.1520(c) 2.2 • HPFB (Canada) No Objection [1]	
Forms	• Pellets		
Processing Method	• Blown Film		

ASTM & ISO Properties [2]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.926		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.88	g/10 min	ASTM D1238
Films	**Nominal Value**	**Unit**	**Test Method**
Film Toughness - MD			ASTM D882
1.0 mil	666	ft·lb/in³	
2.0 mil	780	ft·lb/in³	
Film Toughness - TD			ASTM D882
1.0 mil	770	ft·lb/in³	
2.0 mil	808	ft·lb/in³	
Secant Modulus - 2% Secant, MD			ASTM D882
1.0 mil	28600	psi	
2.0 mil	29200	psi	
Secant Modulus - 2% Secant, TD			ASTM D882
1.0 mil	32600	psi	
2.0 mil	32900	psi	
Tensile Strength - MD			ASTM D882
Yield, 1.0 mil	1730	psi	
Yield, 2.0 mil	1710	psi	
Tensile Strength - TD			ASTM D882
Yield, 1.0 mil	1780	psi	
Yield, 2.0 mil	1770	psi	
Tensile Strength - MD			ASTM D882
Break, 1.0 mil	3680	psi	
Break, 2.0 mil	3130	psi	

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Films	Nominal Value	Unit	Test Method
Tensile Strength - TD			ASTM D882
Break, 1.0 mil	2510	psi	
Break, 2.0 mil	2450	psi	
Tensile Elongation - MD			ASTM D882
Break, 1.0 mil	270	%	
Break, 2.0 mil	370	%	
Tensile Elongation - TD			ASTM D882
Break, 1.0 mil	540	%	
Break, 2.0 mil	560	%	
Dart Drop Impact			ASTM D1709A
1.0 mil	78	g	
2.0 mil	120	g	
Elmendorf Tear Strength - MD			ASTM D1922
1.0 mil	190	g	
2.0 mil	400	g	
Elmendorf Tear Strength - TD			ASTM D1922
1.0 mil	180	g	
2.0 mil	450	g	

Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	207	°F	ASTM D1525
Melting Temperature (DSC)	234	°F	Internal Method

Optical	Nominal Value	Unit	Test Method
Gloss			ASTM D2457
45°, 1.00 mil	71		
45°, 2.00 mil	76		
Haze			ASTM D1003
1.00 mil	6.00	%	
2.00 mil	7.00	%	

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	416	°F

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Type: Single Flight
- Die Gap: 40 mil (1.02 mm)
- Melt Temperature: 416°F (213°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 130 rpm
- Frost Line Height: 28 in. (711 mm)

Notes

[1] With limitations

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