



SURPASS® FPs016-A

NOVA Chemicals - Linear Low Density Polyethylene

Tuesday, November 5, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Processing Stabilizer		
Features	• Copolymer • Food Contact Acceptable • Good Melt Strength	• Good Tear Strength • Good Toughness • Low Density	• Low Gel • Octene Comonomer
Uses	• Film	• Laminates	
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a		
Forms	• Pellets		
Processing Method	• Coextrusion	• Film Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.918		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.65	g/10 min	ASTM D1238

Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Thickness - Recommended / Available	1.0 - 5.0 mil (25 - 127 µm)		
Secant Modulus - 1% Secant, MD (0.98 mil, Blown Film)	18300	psi	ASTM D882
Secant Modulus - 1% Secant, TD (0.98 mil, Blown Film)	20000	psi	ASTM D882
Tensile Strength - MD (Yield, 0.98 mil, Blown Film)	1230	psi	ASTM D882
Tensile Strength - TD (Yield, 0.98 mil, Blown Film)	1230	psi	ASTM D882
Tensile Strength - MD (Break, 0.98 mil, Blown Film)	6820	psi	ASTM D882
Tensile Strength - TD (Break, 0.98 mil, Blown Film)	6380	psi	ASTM D882
Tensile Elongation - MD (Break, 0.98 mil, Blown Film)	470	%	ASTM D882
Tensile Elongation - TD (Break, 0.98 mil, Blown Film)	780	%	ASTM D882
Dart Drop Impact ² (0.98 mil, Blown Film)	700	g	ASTM D1709A
Elmendorf Tear Strength - MD (0.98 mil, Blown Film)	350	g	ASTM D1922
Elmendorf Tear Strength - TD (0.98 mil, Blown Film)	430	g	ASTM D1922
Seal Initiation Temperature (0.98 mil, Blown Film)	212	°F	Internal Method

Optical	Nominal Value	Unit	Test Method
Gloss			ASTM D2457
45°, 0.984 mil, Blown Film ³	38		
45°, 0.984 mil, Blown Film ⁴	72		
Haze			ASTM D1003
0.984 mil, Blown Film ³	15.0	%	
0.984 mil, Blown Film ⁴	7.00	%	

Additional Information	Nominal Value	Unit	Test Method
Low Friction Puncture - Blown Film (1.0 mil)	22.0	in-lb/mil	Internal Method

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Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	365 to 428	°F

Extrusion Notes

Optimum Blow-Up Ratio: 2:1 - 3.5:1
Die Gap: 2.0 mm - 3.0 mm (0.085 in - 0.110 in)

Notes

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

² F50

³ 100% LLDPE

⁴ LDPE Blended