

ELITE™ AT 6111

Enhanced Polyethylene Resin

The Dow Chemical Company

Message:

ELITE™ AT 6111 Enhanced Polyethylene Resin is an ethylene-octene copolymer based on ELITE™ AT technology from Dow. This resin is designed for cast stretch machine wrap films in pallet wrap application and offers an optimized balance of extensibility, impact strength, and puncture resistance.

Main Characteristics:

Excellent extensibility

High impact and exceptional puncture resistance

Excellent processibility with low back pressure and power consumption.

Complies with:

U.S. FDA FCN 424

EU, No 10/2011

Canadian HPFB No Objection

Consult the regulations for complete details.

General Information			
Agency Ratings	FDA FCN 424		
	HPFB (Canada) No Objection		
	Europe No 10/2011		
Forms	Particle		
Processing Method	cast film		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.912	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.7	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	20	µm	
Film Puncture Energy (20 µm)	2.87	J	Internal method
Film Puncture Force (20 µm)	36.9	N	Internal method
Film Puncture Resistance (20 µm)	23.0	J/cm ³	Internal method
Tensile Strength			ASTM D882
MD: Yield, 20 µm	6.37	MPa	ASTM D882
TD: Yield, 20 µm	6.30	MPa	ASTM D882
MD: Break, 20 µm	44.3	MPa	ASTM D882
TD: Break, 20 µm	38.1	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Break, 20 µm	440	%	ASTM D882
TD: Break, 20 µm	560	%	ASTM D882
Dart Drop Impact (20 µm)	740	g	ASTM D1709A
Elmendorf Tear Strength ¹			ASTM D1922
MD : 20 µm	240	g	ASTM D1922
TD : 20 µm	470	g	ASTM D1922

Final stretch-On-Pallet testing ² (20.3 μm)	300	%	Internal method
Thermal	Nominal Value	Unit	Test Method
Melting Temperature (DSC)	109	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 20.3 μm)	90		ASTM D2457
Haze (20.3 μm)	1.3	%	ASTM D1003

Extrusion instructions

Fabrication Conditions For Cast Film:
 EGAN/Davis-Standard 5 layer cast line
 Melt Temperature: 520°F (271°C)
 Chill Roll (primary/secondary) Temperature: 70°F (21°C)
 Line Speed: 600 fpm (183m/min)
 Output: 400 lb/hr
 Die Width: 36in. (915 mm)
 Die Gap: 20mil (0.5mm)
 Air Gap: 3in. (7.6mm)

NOTE

1. Method B
2. Determined by Highlight Industries, Inc.

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