

**ELITE™ AT 6112S Enhanced Polyethylene Resin****Overview**

ELITE™ AT 6112S Enhanced Polyethylene Resin is an ethylene-hexene 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 processability with low back pressure and power consumption

Complies with

- U.S. FDA FCN 1539

Consult the regulations for complete details.

Additive

- Antiblock: No
- Processing Aid: No
- Slip: No

Properties¹

Physical	Nominal Value	Unit	Test Method ²
Density	0.912	g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	3.8	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness – Tested	1.0	mil	
Film Puncture Energy (1.0 mil (25 µm))	56.8	in•lb	Internal Method
Film Puncture Force (1.0 mil (25 µm))	8.30	lbf	Internal Method
Film Puncture Resistance (1.0 mil (25 µm))	371	ft-lb/in ³	Internal Method
Tensile Strength			ASTM D882
MD: Yield, 1.0 mil (25 µm)	982	psi	
TD: Yield, 1.0 mil (25 µm)	930	psi	
MD: Break, 1.0 mil (25 µm)	7370	psi	
TD Break, 1.0 mil (25 µm)	6170	psi	
Tensile Elongation			ASTM D882
MD: Break, 1.0 mil (25 µm)	550	%	
TD: Break, 1.0 mil (25 µm)	610	%	

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



Properties (Cont.)

Films	Nominal Value	Unit	Test
Dart Drop Impact (1.0 mil (25 µm))	500	g	ASTM D1709A
Elmendorf Tear Strength ³			ASTM D1922
MD: 1.0 mil (25 µm)	360	g	
TD: 1.0 mil (25 µm)	520	g	
Ultimate Stretch – On-Pallet Testing ⁴ (1.0 mil (25.4 µm))	380	%	Internal Method
Thermal	Nominal Value	Unit	Test
Melting Temperature (DSC)	228	°F	Internal Method
Optical	Nominal Value	Unit	Test
Gloss (45°, 1.00 mil (25.4 µm))	93		ASTM D2457
Haze (1.00 mil (25.4 µm))	1.06	%	ASTM D1003

Extrusion Notes

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 (183 m/min)
- Output: 400 lb/hr
- Die Width: 36 in. (915 mm)
- Die Gap: 20 mil (0.5 mm)
- Air Gap: 3 in (7.6 mm)

3. Method B.
4. Determined by Highlight Industries, Inc.

