



## ELITE™ AT 6101 Enhanced Polyethylene Resin

### Overview

ELITE™ AT 6101 Enhanced Polyethylene Resin is a copolymer produced via INSITE™ technology from Dow. It is designed for stretch hooder application and offers a unique combination of holding force, elastic recovery, optics and toughness.

#### Main Characteristics:

- Excellent elastic recovery and holding force
- Very high impact resistance and tear properties
- Ease of processing

#### Complies with:

- U.S. FDA 21 CFR 175.105(c)(5)
- EU, 10/2011

Consult the regulations for complete details.

### Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.905 g/cm <sup>3</sup>	0.905 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.905 g/cm <sup>3</sup>	0.905 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.0 mil	25 µm	
Film Puncture Energy	50.0 in·lb	5.65 J	Dow Method
Film Puncture Force	13.0 lbf	57.8 N	Dow Method
Film Puncture Resistance	350 ft·lb/in <sup>3</sup>	29.0 J/cm <sup>3</sup>	Dow Method
Film Toughness			ASTM D882
MD	800 ft·lb/in <sup>3</sup>	66.2 J/cm <sup>3</sup>	
TD	850 ft·lb/in <sup>3</sup>	70.3 J/cm <sup>3</sup>	
Secant Modulus			ASTM D882
1% Secant, MD	12800 psi	88.3 MPa	
2% Secant, MD	12000 psi	82.7 MPa	
1% Secant, TD	13000 psi	89.6 MPa	
2% Secant, TD	12000 psi	82.7 MPa	
Tensile Strength			ASTM D882
MD : Yield	850 psi	5.86 MPa	
TD : Yield	800 psi	5.52 MPa	
MD : Break	6500 psi	44.8 MPa	
TD : Break	5500 psi	37.9 MPa	
Tensile Elongation			ASTM D882
MD : Break	390 %	390 %	
TD : Break	500 %	500 %	
Dart Drop Impact	800 g	800 g	ASTM D1709B
Elmendorf Tear Strength <sup>2</sup>			ASTM D1922
MD	200 g	200 g	
TD	360 g	360 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	203 °F	95.0 °C	ASTM D1525
Melting Temperature (DSC)	214 °F	101 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	75	75	ASTM D2457

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Haze	4.0 %	4.0 %	ASTM D1003

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#### Extrusion Notes

##### Fabrication Conditions For Blown Film

- Screw Size: 3.5 in.
- Screw Type: DSBII
- Die Gap: 70 mil
- Melt Temperature: 421°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 38 rpm
- Frost Line Height: 58 in.

#### Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

<sup>1</sup> Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

<sup>2</sup> Method B

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<b>North America</b>		<b>Europe/Middle East</b>	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+31-11567-2626
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
<b>Latin America</b>		<b>South Africa</b>	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	<b>Asia Pacific</b>	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

[www.dowplastics.com](http://www.dowplastics.com)

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