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)

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/cm³	0.905	g/cm³	ASTM D792
Base Density	0.905	g/cm³	0.905	g/cm³	Dow Method [1]
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/in³	29.0	J/cm³	Dow Method
Film Toughness					ASTM D882
MD	800	ft·lb/in³	66.2	J/cm³	
TD	850	ft·lb/in³	70.3	J/cm³	
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					ASTM D1922 [2]
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
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.

[1] 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/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

[2] Method B

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