

ELITE™ AT 6201 Enhanced Polyethylene Resin

Overview

ELITE™ AT 6201 Enhanced Polyethylene Resin is an enhanced ethylene-octene copolymer based on ELITE AT technology from Dow. This resin offers excellent ultimate hot tack strength, broad hot tack window, and low heat seal initiation temperature.

Main Characteristics

- · High Hot Tack Strength
- · Broad Hot Tack Window
- Low Heat Seal Initiation Temperature
- · High Throughput Resin with excellent bubble stability

Complies with:

- U.S. FDA FCN 424
- EU, No 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	0.907	g/cm³	0.907	g/cm³	ASTM D792
Base Density	0.907	g/cm³	0.907	g/cm³	Dow Method ¹
Melt Index (190°C/2.16 kg)	0.85	g/10 min	0.85	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 (1.0 mil (25 µm))	34.0	in·lb	3.84	J	Dow Method
Film Puncture Force (1.0 mil (25 µm))	11.5	lbf	51.2	N	Dow Method
Film Puncture Resistance (1.0 mil (25 μm))	256	ft·lb/in³	21.2	J/cm³	Dow Method
Secant Modulus					ASTM D882
2% Secant, MD: 1.0 mil (25 μm)	14500	psi	100	MPa	
2% Secant, TD: 1.0 mil (25 μm)	16300	psi	112	MPa	
Tensile Strength					ASTM D882
MD: Yield, 1.0 mil (25 μm)	1160	psi	7.98	MPa	
TD: Yield, 1.0 mil (25 µm)	1030	psi	7.07	MPa	
MD: Break, 1.0 mil (25 μm)	6850	psi	47.2	MPa	
TD: Break, 1.0 mil (25 µm)	4920	psi	33.9	MPa	
Tensile Elongation					ASTM D882
MD: Break, 1.0 mil (25 μm)	390	%	390	%	
TD: Break, 1.0 mil (25 µm)	520	%	520	%	
Dart Drop Impact					
1.0 mil (25 μm)	> 850	g	> 850	g	ASTM D1709A
1.0 mil (25 μm)	960	g	960	g	ASTM D1709E
Elmendorf Tear Strength					ASTM D1922 2
MD: 1.0 mil (25 µm)	170	g	170	g	
TD: 1.0 mil (25 µm)	430	g	430	g	
Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Melting Temperature (DSC)	222	°F	106	°C	Dow Method
Optical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	62		62		ASTM D2457
Haze (1.00 mil (25.4 µm))	8.1	%	8.1	%	ASTM D1003
Additional Information	Nominal Value	(English)	Nominal Value	(SI)	Test Method
VFFS Hot Tack Window	45°F (205-250) or 25°C (96-121)	•	45°F (205-250) or 25°C (96-121)		Dow Method ³

Form No. 400-00150107en

Rev: 2012-07-02

Extrusion Notes

Fabrication Conditions For Blown Film:

Monolayer Film

• Screw Size: 3.5in. (88.9mm); 30:1ratio L/D

Screw Type: DSBIIDie Gap: 70mil (1.8 mm)

• Melt Temperature: 423°F (218°C)

• Output: 10.9 lb/hr/in. of die circumference

Die Diameter: 8 in.Blow-Up Ratio: 2.5 to 1

• Frost Line Height: 31.4 in. (800 mm)

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.

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² Method B

³ 2 mil coex film, 20/60/20 with MDPE core, sealant layer formulated with 10% LDPE and slip and AB. Tested on VFFS machine with 4 lbs fill weight, 0.25 second dwell time.

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Additional Information

North America		Europe/Middle East	+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	•	
Latin America		South Africa	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dowplastics.com

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