

## **ELITE™ AT 6202 Enhanced Polyethylene Resin**

## Overview

ELITE™ AT 6202 Enhanced Polyethylene Resin is an enhanced LLDPE ethylene-octene copolymer from Dow. This grade is a fully formulated sealant resin designed for demanding applications where hot tack strength is a key requirement.

## 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 20/2011

Consult the regulations for complete details.

## **Additive**

• Antiblock: 1875 ppm

• Slip: 750 ppm

· Processing Aid: Yes

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.908	g/cm³	0.908	g/cm³	ASTM D792
Base Density	0.907	g/cm³	0.907	g/cm³	Dow Method <sup>1</sup>
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))	38.0	in·lb	4.29	J	Dow Method
Film Puncture Force (1.0 mil (25 µm))	12.2	lbf	54.3	N	Dow Method
Film Puncture Resistance (1.0 mil (25 µm))	253	ft·lb/in³	20.9	J/cm³	Dow Method
Secant Modulus					ASTM D882
2% Secant, MD: 1.0 mil (25 μm)	10000	psi	68.9	MPa	
2% Secant, TD: 1.0 mil (25 μm)	11200	psi	77.2	MPa	
Tensile Strength					ASTM D882
MD: Yield, 1.0 mil (25 μm)	1150	psi	7.93	MPa	
TD: Yield, 1.0 mil (25 µm)	1130	psi	7.79	MPa	
MD: Break, 1.0 mil (25 μm)	7100	psi	49.0	MPa	
TD: Break, 1.0 mil (25 µm)	5800	psi	40.0	MPa	
Tensile Elongation					ASTM D882
MD: Break, 1.0 mil (25 μm)	450	%	450	%	
TD: Break, 1.0 mil (25 µm)	600	%	600	%	
Dart Drop Impact (1.0 mil (25 µm))	1000	g	1000	g	ASTM D1709E
Elmendorf Tear Strength					ASTM D1922 2
MD: 1.0 mil (25 μm)	210	g	210	g	
TD: 1.0 mil (25 µm)	430	g	430	g	
Thermal	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Melting Temperature (DSC)	223	°F	106	°C	Dow Method
Optical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	63		63		ASTM D2457
Haze (1.00 mil (25.4 μm))	7.9	%	7.9	%	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 <sup>3</sup>

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#### **Extrusion Notes**

Fabrication Conditions For Blown Film:

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

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

• Melt Temperature: 433°F (223°C)

• Output: 11.9 lb/hr/in. of die circumference

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

• Frost Line Height: 52 in. (1321 mm)

#### **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/cm³. 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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<sup>&</sup>lt;sup>3</sup> 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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