



# ELITE™ NG 5400B

## Enhanced Polyethylene Resin

### Overview

ELITE™ NG 5400B is a Linear Low Density Polyethylene, 1-Octene copolymer, produced with the SOLUTION™ technology. This resin presents excellent tensile, tear and puncture resistance even at low temperatures with great gloss and clarity. It has a low seal initiation temperature with high seal performance.

#### Main Characteristics:

- Film for packaging for frozen food
- Excellent mechanical properties even at low temperatures
- Low seal initiation temperature and high seal properties
- Excellent optics
- Suitable for food contact: Report # 690/05 issued by INAL according to MERCOSUR.
- Consult the regulation to obtain complete details

### Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.916 g/cm <sup>3</sup>	0.916 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.916 g/cm <sup>3</sup>	0.916 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.5 mil	38 µm	
Film Puncture Resistance (1.5 mil (38 µm))	121 ft-lb/in <sup>3</sup>	10.0 J/cm <sup>3</sup>	Dow Method
Secant Modulus			ASTM D882
2% Secant, MD : 1.5 mil (38 µm)	19400 psi	134 MPa	
2% Secant, TD : 1.5 mil (38 µm)	20700 psi	143 MPa	
Tensile Strength			ASTM D882
MD : Yield, 1.5 mil (38 µm)	1450 psi	10.0 MPa	
TD : Yield, 1.5 mil (38 µm)	1450 psi	10.0 MPa	
MD : Break, 1.5 mil (38 µm)	5800 psi	40.0 MPa	
TD : Break, 1.5 mil (38 µm)	5220 psi	36.0 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.5 mil (38 µm)	750 %	750 %	
TD : Break, 1.5 mil (38 µm)	930 %	930 %	
Dart Drop Impact (1.5 mil (38 µm))	1400 g	1400 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 1.5 mil (38 µm)	700 g	700 g	
TD : 1.5 mil (38 µm)	910 g	910 g	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.48 mil (37.5 µm))	64	64	ASTM D2457
Haze (1.48 mil (37.5 µm))	9.0 %	9.0 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	450 °F	232 °C	



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## Extrusion Notes

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Processing Conditions for Blown Film:

- Screw Diameter: 63.5 mm (2.5 in); 24.5 L/D
- Die Gap: 1.8 mm (70 mil)
- Melt Temperature: 232°C (450°F)
- Output: 52 kg/h (113 lb/h)
- Die Diameter: 152 mm (6 in)
- Blow-up Ratio: 2.5:1
- Screw Speed: 83 rpm
- Frost Line Height: 635 mm (25 in)

## Notes

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

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<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.

