



# DOWLEX™ NG 2049B

## Polyethylene Resin

### Overview

DOWLEX™ NG 2049B is a Linear Low Density Polyethylene, 1-Octene copolymer, produced with the SOLUTION™ technology. This resin is an excellent option when an increase in modulus is required while maintaining mechanical properties. This resin presents outstanding optical properties, allowing high quality impression.

Main Characteristics:

- Excellent combination of modulus and mechanical properties
- Outstanding optical properties

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Suitable for food contact: Report # 2183/07 issued by INAL according to MERCOSUR.

Consult the regulations to obtain complete details.

### Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.926 g/cm <sup>3</sup>	0.926 g/cm <sup>3</sup>	ASTM D792
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 (150 mil (3700 µm))	121 ft-lb/in <sup>3</sup>	10.0 J/cm <sup>3</sup>	Dow Method
Secant Modulus			ASTM D882
2% Secant, MD	34100 psi	235 MPa	
2% Secant, TD	40800 psi	281 MPa	
Tensile Strength			ASTM D882
MD : Yield, 1.5 mil (38 µm)	1890 psi	13.0 MPa	
TD : Yield, 1.5 mil (38 µm)	2180 psi	15.0 MPa	
MD : Break, 1.5 mil (38 µm)	6960 psi	48.0 MPa	
TD : Break, 1.5 mil (38 µm)	6090 psi	42.0 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.5 mil (38 µm)	630 %	630 %	
TD : Break, 1.5 mil (38 µm)	740 %	740 %	
Dart Drop Impact (1.5 mil (38 µm))	220 g	220 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 1.5 mil (38 µm)	350 g	350 g	
TD : 1.5 mil (38 µm)	800 g	800 g	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.48 mil (37.5 µm))	80	80	ASTM D2457
Haze (1.48 mil (37.5 µm))	9.0 %	9.0 %	ASTM D1003

### Additional Information

Processing Conditions for Blown Film:

- Die gap: 0.8-2-8 mm
- Melt temperature: 190 - 250 °C
- Blow up ratio: 1.5 - 3.5

### Notes

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

