



DOWLEX™ NG 5056G Polyethylene Resin

Overview

DOWLEX™ NG 5056G Polyethylene Resin is a next generation linear low density polyethylene resin designed for high quality blown film applications requiring a combination of excellent optical properties, tear strength and sealability, and a very good toughness/stiffness balance. DOWLEX NG 5056G Polyethylene Resin is also designed to offer a very low gel level making it ideal for use in lamination films and other specialty packaging.

Note: DOWLEX NG 5056G Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- High clarity tissue overwrap
- Produce bags
- Food packaging films
- Lamination film

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.919 g/cm ³	0.919 g/cm ³	ASTM D792 ¹
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.1 g/10 min	1.1 g/10 min	ISO 1133 ¹
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2.0 mil	50 µm	
Film Puncture Energy (2.0 mil (50 µm))	31.0 in·lb	3.50 J	ASTM D5748 ⁴
Film Puncture Force (2.0 mil (50 µm))	12.1 lbf	54.0 N	ASTM D5748 ²
Tensile Modulus			ISO 527-3 ²
2% Secant, MD: 2.0 mil (50 µm)	28700 psi	198 MPa	
2% Secant, TD: 2.0 mil (50 µm)	34500 psi	238 MPa	
Tensile Stress			ISO 527-3 ⁴
MD: Yield, 2.0 mil (50 µm)	1090 psi	7.50 MPa	
TD: Yield, 2.0 mil (50 µm)	1160 psi	8.00 MPa	
MD: Break, 2.0 mil (50 µm)	5510 psi	38.0 MPa	
TD: Break, 2.0 mil (50 µm)	5370 psi	37.0 MPa	
Tensile Elongation			ISO 527-3 ⁴
MD: Break, 2.0 mil (50 µm)	810 %	810 %	
TD: Break, 2.0 mil (50 µm)	920 %	920 %	
Dart Drop Impact (2.0 mil (50 µm))	450 g	450 g	ISO 7765-1/A ⁴
Elmendorf Tear Strength			ASTM D1922 ²
MD: 2.0 mil (50 µm)	890 g	890 g	
TD: 2.0 mil (50 µm)	1100 g	1100 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	219 °F	104 °C	ASTM D1525 ¹
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.97 mil (50.0 µm))	61	61	ASTM D2457 ²
Haze (1.97 mil (50.0 µm))	8.9 %	8.9 %	ISO 14782 ²
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	374 to 464 °F	190 to 240 °C	

Extrusion Notes

Fabrication Conditions For Tubular Film Extrusion:

- Melt Temperature: 190 to 240°C.
- Blow-Up Ratio Range: 1.5 to 3:1.
- Recommended Gauge Range: 10 to 150 µm.

Notes

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

¹ Compression Molded

² Blown film extruded at 235°C, 50 microns, 2.5 BUR, 1.55mm die gap.

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