



Technical Data Sheet

DOWLEX™ GM 8070G Linear Low Density Polyethylene Resin

Overview

DOWLEX™ GM 8070G Polyethylene Resin is suitable for a wide variety of blown film applications with good processability, superior extensibility and good physical properties.

Main Characteristics

- Superior extensibility
- High strength and good optical properties

Complies with:

- EU, No 10/2011
- U.S. FDA FCN 741
- Canadian HPFB No Objection

Consult the regulations for complete details

Sustainability Attribute:



Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Physical Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method ¹
Density	0.917	g/cm ³	0.917	g/cm ³	ASTM D792
Base Density ²	0.917	g/cm ³	0.917	g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	0.90	g/10 min	0.90	g/10 min	ASTM D1238
Mechanical					
Tensile Elongation (Break)	510	%	510	%	ASTM D882
Films					
Film Thickness — Tested	1	mil	20	µm	
Film Puncture Resistance	194	ft·lb/in ³	16.1	J/cm ³	Dow Method

1. ASTM: American Society for Testing and Materials

2. 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.

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

Physical Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Secant Modulus					ASTM D882
2% Secant, MD	51200	psi	353	MPa	
2% Secant, TD	46300	psi	319	MPa	
Tensile Strength					ASTM D882
MD: Yield	2510	psi	17.3	MPa	
TD: Yield	2630	psi	18.1	MPa	
MD: Break	12700	psi	87.3	MPa	
Tensile Elongation					ASTM D882
MD: Break	510	%	510	%	
TD: Break	490	%	490	%	
Dart Drop Impact	450	g	450	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	320	g	320	g	
TD	490	g	490	g	
Thermal					
Vicat Softening Temperature	217	°F	103	°C	ASTM D1525
Melting Temperature (DSC)	250	°F	121	°C	Dow Method
Optical					
Gloss (45°, 0.800 mil (20.3 µm))	54		54		ASTM D2457
Haze (0.800 mil (20.3 µm))	10.0	%	10.0	%	ASTM D1003
Extrusion Notes					
Fabrication Conditions for Blown Film:					
<ul style="list-style-type: none"> Machine: Monolayer blown film extrusion line Monolayer Film (0.8 mil) Screw Size: 2.5 inch (63.5 mm) 30:1 L/D Screw Type: DSBII Die Gap: 70 mil Output: 10 lbs/hr./in. of die circumference Die Diameter: 6 in. Blow-up Ratio: 2.5:1 					

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