



## Technical Data Sheet

### DOWLEX™ GM 8051F Polyethylene Resin

#### Description

DOWLEX™ GM 8051F Polyethylene Resin is designed for use in a wide variety of film applications, in special for FFS and lamination multilayered films combining excellent optical properties, mechanicals and an additive package designed to enhance COF stability.

#### Main Characteristics

- High toughness, processability and optical properties
- Fully formulated, enhanced COF stability

#### Complies with

- U.S. FDA FCN 741

Consult the regulations for complete details.

#### Additive

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

#### Properties<sup>1</sup>

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method <sup>2</sup>
Density	0.921	g/cm <sup>3</sup>	0.921	g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	0.90	g/10 min	0.90	g/10 min	ASTM D1238
<b>Films</b>					
Film Thickness - Tested	2.0	mil	50	µm	
Film Puncture Resistance	346	ft·lb/in <sup>3</sup>	28.6	J/cm <sup>3</sup>	Internal Method
<b>Secant Modulus</b>					
2% Secant, MD	25800	psi	178	MPa	
2% Secant, TD	29400	psi	203	MPa	
<b>Tensile Strength</b>					
MD: Yield	1040	psi	7.20	MPa	ASTM D882
TD: Yield	1070	psi	7.40	MPa	
MD: Break	6290	psi	43.4	MPa	
TD: Break	5700	psi	39.3	MPa	
<b>Tensile Elongation</b>					
MD: Break	830	%	830	%	ASTM D882
TD: Break	850	%	850	%	
Dart Drop Impact	600	g	600	g	ASTM D1709A

1. Typical properties: these are not to be construed as specifications. Users should confirm the results by their own tests.
2. ASTM: American Society for Testing and Materials



## Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Elmendorf Tear Strength					ASTM D1922
MD	740	g	740	g	
TD	890	g	890	g	
<b>Thermal</b>					
Vicat Softening Temperature	226	°F	108	°C	ASTM D1525
Melting Temperature (DSC)	250	°F	121	°C	Internal Method
<b>Optical</b>					
Gloss (45, 1.97 mil (50.0 µm))	63		63		ASTM D2457
Haze (1.97 mil (50.0 µm))	11.4	%	11.4	%	ASTM D1003
<b>Extrusion Notes</b>					
Fabrication Conditions for Blown Film:					
<ul style="list-style-type: none"><li>• Machine: Monolayer blown film extrusion line</li><li>• Monolayer Film (50 microns)</li><li>• Screw Size: 25 mm 25:1 L/D</li><li>• Die Gap: 1.8 mm</li><li>• Output: 15 kg/hr</li><li>• Die Diameter: 80 mm</li><li>• Blow-up Ratio: 2.5 : 1</li></ul>					

3. Typical properties: these are not to be construed as specifications. Users should confirm the results by their own tests.
4. ASTM: American Society for Testing and Materials

