DOWLEX™ GM 8051

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

DOWLEX™ GM 8051 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.

General		
Material Status	• Commercial: Active	
Availability	• Latin America	• North America
Additive	• Antiblock: Yes	• Slip: Yes
Agency Ratings	• FDA FCN 741	
Forms	• Pellets	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.923		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.90	g/10 min	ASTM D1238
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	2	mil	
Film Puncture Resistance	346	ft·lb/in³	Internal Method
Secant Modulus - 2% Secant, MD	25800	psi	
Secant Modulus - 2% Secant, TD	29400	psi	
Tensile Strength - MD (Yield)	1040	psi	ASTM D882
Tensile Strength - TD (Yield)	1070	psi	ASTM D882
Tensile Strength - MD (Break)	6290	psi	ASTM D882
Tensile Strength - TD (Break)	5700	psi	ASTM D882
Tensile Elongation - MD (Break)	830	%	ASTM D882
Tensile Elongation - TD (Break)	850	%	ASTM D882
Dart Drop Impact	600	g	ASTM D1709A
Elmendorf Tear Strength - MD	740	g	ASTM D1922
Elmendorf Tear Strength - TD	890	g	ASTM D1922
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	226	°F	ASTM D1525
Melting Temperature (DSC)	250	°F	Internal Method
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss (45°, 1.97 mil)	63		ASTM D2457
Haze (1.97 mil)	11.4	%	ASTM D1003

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Processing Information

Extrusion Notes

Fabrication Conditions For Blown Film:

- Machine: Monolayer blown film extrusion line
- Monolayer Film (50 microns)
- Screw Size: 25 mm 25:1 L/D
- Die Gap: 1.8 mm
- Output: 15 kg/hr
- Die Diameter: 80mm
- Blow-up Ratio: 2.5 : 1

Notes

[1] Typical properties: these are not to be construed as specifications.