

## DOWLEX™ 2036G

## The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

### **General Information**

#### **Product Description**

- Linear Low Density Polyethylene
- · Improved thermal stability for high stiffness film applications
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a
- · Complies with U.S. FDA-DMF
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with EU, No 10/2011
- Complies with Japan Hygienic Olefin and Styrene Plastics Association
- · Consult the regulations for complete details.

General			
Material Status	Commercial: Active		
Availability	Latin America	North America	
Additive	Antiblock: No	Processing Aid: No	Slip: No
Agency Ratings	<ul><li>EU No 10/2011</li><li>FDA 21 CFR 177.1520(c) 3.2a</li></ul>	HPFB (Canada) No Objection <sup>1</sup> JHOSPA Unspecified Rating	
Forms	• Pellets		
Processing Method	Blown Film	Cast Film	

ASTM & ISO Properties <sup>2</sup>					
Physical	Nominal Value	Unit	Test Method		
Density / Specific Gravity	0.937		ASTM D792		
Melt Mass-Flow Rate (190°C/2.16 kg)	2.5	g/10 min	ASTM D1238		
Films	Nominal Value	Unit	Test Method		
Film Thickness - Tested	1	mil			
Film Puncture Resistance (1.0 mil)	125	ft·lb/in³	Internal Method		
Film Toughness - MD (1.0 mil)	3910	ft·lb/in³	ASTM D882		
Film Toughness - TD (1.0 mil)	3720	ft·lb/in³	ASTM D882		
Tensile Strength - MD (Yield, 1.0 mil)	2450	psi	ASTM D882		
Tensile Strength - TD (Yield, 1.0 mil)	2550	psi	ASTM D882		
Tensile Strength - MD (Break, 1.0 mil)	8590	psi	ASTM D882		
Tensile Strength - TD (Break, 1.0 mil)	5790	psi	ASTM D882		
Tensile Elongation - MD (Break, 1.0 mil)	620	%	ASTM D882		
Tensile Elongation - TD (Break, 1.0 mil)	750	%	ASTM D882		
Dart Drop Impact (1.0 mil)	57	g	ASTM D1709A		
Elmendorf Tear Strength - MD (1.0 mil)	83	g	ASTM D1922		
Elmendorf Tear Strength - TD (1.0 mil)	290	g	ASTM D1922		
Thermal	Nominal Value	Unit	Test Method		
Vicat Softening Temperature	246	°F	ASTM D1525		
Melting Temperature (DSC)	257	°F	Internal Method		
Optical	Nominal Value	Unit	Test Method		
Gloss (45°, 1.00 mil)	90		ASTM D2457		
Haze (1.00 mil)	2.60	%	ASTM D1003		



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# Processing Information Extrusion Nominal Value Unit Melt Temperature 525 °F

#### **Extrusion Notes**

Fabrication Conditions For Cast Film:

Monolayer cast film produced on 5 layer cast line:

- Screw Size: 2 in. (51 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2 in. (51 mm); 30:1 L/D
- Die Gap: 25 mil (0.6 mm)
- Chill Roll Temperature: 70°F (21°C)
- Melt Temperature: 525°F (274°C)
- Line Speed: 600 fpm (183 m/min)

#### **Notes**

<sup>1</sup> With limitations



<sup>&</sup>lt;sup>2</sup> Typical properties: these are not to be construed as specifications.