

# ELITE™ 5960G

# The Dow Chemical Company - Enhanced Polyethylene Resin

Tuesday, November 5, 2019

### **General Information**

### **Product Description**

Main Characteristics:

- · HDPE with excellent moisture barrier
- Processes with low back pressure and excellent bubble stability

### Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 2.2
- EU, No 10/2011
- · Canadian HPFB No Objection

Consult the regulations for complete details.

General				
Material Status	Commercial: Active			
Availability	Asia Pacific	Latin America	North America	
Additive	Antiblock: 3000 ppm	Processing Aid: No	Slip: No	
Agency Ratings	• EU No 10/2011	• FDA 21 CFR 177.1520(c) 2.2	<ul> <li>HPFB (Canada) No Objection</li> </ul>	
Forms	Pellets			

ASTM & ISO Properties 1					
Physical	Nominal Value	Unit	Test Method		
Density / Specific Gravity	0.964		ASTM D792		
Melt Mass-Flow Rate (190°C/2.16 kg)	0.85	g/10 min	ASTM D1238		
Films	Nominal Value	Unit	Test Method		
Film Thickness - Tested	1	mil			
Film Puncture Energy	3.00	in·lb			
Film Puncture Force	3.00	lbf			
Film Puncture Resistance	17.0	ft·lb/in³	Internal Method		
Film Toughness - MD	1700	ft·lb/in³	ASTM D882		
Film Toughness - TD	1550	ft·lb/in³	ASTM D882		
Secant Modulus			ASTM D882		
1% Secant, MD	163000	psi			
2% Secant, MD	127000	psi			
Secant Modulus			ASTM D882		
1% Secant, TD	193000	psi			
2% Secant, TD	148000	psi			
Tensile Strength - MD (Yield)	4100	psi	ASTM D882		
Tensile Strength - TD (Yield)	4400	psi	ASTM D882		
Tensile Strength - MD (Break)	5400	psi	ASTM D882		
Tensile Strength - TD (Break)	3500	psi	ASTM D882		
Tensile Elongation - MD (Break)	500	%	ASTM D882		
Tensile Elongation - TD (Break)	600	%	ASTM D882		
Dart Drop Impact	40	g	ASTM D1709A		
Elmendorf Tear Strength - MD <sup>2</sup>	13	g	ASTM D1922		
Elmendorf Tear Strength - TD <sup>2</sup>	400	g	ASTM D1922		



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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	266	°F	ASTM D1525
Melting Temperature (DSC)	273	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°)	14		ASTM D2457
Haze	42.0	%	ASTM D1003

### **Processing Information**

### **Extrusion Notes**

Fabrication Conditions For Blown Film:

Screw Size: 3.5 in Screw Type: DSB II Die Gap: 70 mil (1.7 mm) Melt Temperature: 425°F

Output: 12 lb/hr/in of die circumference

Die Diameter: 8 in. Blow-Up Ratio: 2.5 to 1 Frost Line Height: 33 in.

### **Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.



<sup>&</sup>lt;sup>2</sup> Method B