



ELITE™ 5940G

The Dow Chemical Company - Enhanced Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

ELITE™ 5940G Enhanced Polyethylene Resin is a copolymer produced via INSITE™ Technology from Dow.

Main Characteristics:

- MDPE with excellent balance of stiffness and toughness.
- Excellent processability.

Complies with

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Canadian HPFB No Objection

Consult the regulations for complete details

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection
Forms	• Pellets

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.942		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	17.0	in-lb	
Film Puncture Force	10.0	lbf	
Film Puncture Resistance	115	ft-lb/in ³	Internal Method
Film Toughness - MD	1300	ft-lb/in ³	ASTM D882
Film Toughness - TD	1500	ft-lb/in ³	ASTM D882
Secant Modulus			ASTM D882
1% Secant, MD	90700	psi	
2% Secant, MD	73000	psi	
Secant Modulus			ASTM D882
1% Secant, TD	110000	psi	
2% Secant, TD	88000	psi	
Tensile Strength - MD (Yield)	3000	psi	ASTM D882
Tensile Strength - TD (Yield)	3500	psi	ASTM D882
Tensile Strength - MD (Break)	5200	psi	ASTM D882
Tensile Strength - TD (Break)	4700	psi	ASTM D882
Tensile Elongation - MD (Break)	460	%	ASTM D882
Tensile Elongation - TD (Break)	640	%	ASTM D882
Dart Drop Impact	120	g	ASTM D1709A
Elmendorf Tear Strength - MD ²	40	g	ASTM D1922
Elmendorf Tear Strength - TD ²	650	g	ASTM D1922

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	252	°F	ASTM D1525
Melting Temperature (DSC)	259	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°)	20		ASTM D2457
Haze	30.0	%	ASTM D1003

Processing Information

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 35 in.
- Screw Type: DSB II
- Die Gap: 70 mil (1.7 mm)
- Melt Temperature: 395°F
- Output: 10 lb/hr/in of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 39 rpm
- Frost Line Height: 30 in.

Notes

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

² Method B