



ELITE 5100G

Enhanced Polyethylene Resin

Melt Index:	0.85
Density:	0.920

ELITE™ 5100G Enhanced Polyethylene Resin is a copolymer produced via INSITE™ Technology from Dow. It offers extremely high impact resistance, combined with excellent tear, tensile and puncture properties for thick and thin gauge industrial and consumer blown film applications. ELITE 5100G Enhanced Polyethylene Resin exhibits a broader seal range and higher hot tack strengths than LLDPE, making it ideal for automatic packaging applications.

Note: It complies with U.S. FDA regulation 21 CFR 177.1520 (c) 3.2 (a) when used unmodified and processed according to good manufacturing practices. Please contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Industrial and consumer film applications.
- Film with low blocking tendencies for improved handling and convertibility.

Resin Properties ⁽¹⁾	Unit	Test Method	Values	
Melt Index, 190°C/2.16 kg	g/10min	ASTM D-1238	0.85	
Density	g/cm ³	ASTM D-792	0.920	
Melting Point	°C	DSC	122	
Vicat Softening Point	°C	ISO 306	107	
Blown Film Properties ^(1,2)	Unit	Test Method	20 µm	51 µm
Puncture Resistance, Energy Force	J	Dow Method	5	8.2
	N		58	101
Dart Impact, (Method B)	g	ASTM D-1709	>850	>850
Elmendorf Tear (Type B)	g	MD	360	907
		CD	540	1105
Tensile Yield	MPa	MD	10.9	11.4
		CD	11.4	11.5
Ultimate Tensile	MPa	MD	42	56
		CD	36	44
Ultimate Elongation	%	MD	630	645
		CD	720	655
Tensile Modulus 2% Secant	MPa	MD	220	200
		CD	228	234
Optical Properties				
Gloss, 20°	units	ASTM D-2457	60	65
Haze	%	ASTM D-1003	13	11
Seal Initiation Temperature	°C ⁽³⁾	Dow Method	-	101

Fabrication Conditions For Blown Film Extrusion:

- Die Gap: 0.8-2.8 mm.
- Melt Temperature: 190-246 °C.
- Blow-Up Ratio: 1.5:1 to 3.5:1.

(1) Typical values; not to be construed as specifications.

(2) Blown film extruded at 232-246 °C, 2.5:1 BUR, 1.9mm die gap.

(3) Temperature at which 5.25 N/15 mm heat seal strength is achieved.

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- use as a critical component in medical devices that support or sustain human life; or
- use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

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Additional Information

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