ELITE™ 5401GT
Enhanced Polyethylene Resin

Overview

ELITE™ 5401GT Enhanced Polyethylene Resin is a copolymer produced via INSITE™ Technology from Dow. It offers extremely high impact resistance, combined with excellent tear, tensile and optical properties for high strength blown film applications. ELITE 5401GT Enhanced Polyethylene Resin offers a unique combination of low seal initiation temperature and high modulus and low blocking tendency for automatic packaging applications. ELITE 5401GT Enhanced Polyethylene Resin contains slip and antiblock additives

Applications:

- Food and specialty packaging films.
- Very tough thin gauge films

Complies with:

- EU, No 10/2011
- U.S. FDA FCN 424

Consult the regulations for complete details.

Additive

- Antiblock: 2750 ppm
- Slip: 1000 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.917	g/cm³	0.917	g/cm³	ASTM D792
Base Density [1]	0.916	g/cm³	0.916	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	1.0	g/10 min	1.0	g/10 min	ISO 1133
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2	mil	51	µm	
Film Puncture Energy [2] (2.0 mil (51 µm))	53.1	in·lb	6.00	J	ASTM D5748
Film Puncture Force [2] (2.0 mil (51 µm))	18.0	lbf	80.0	N	ASTM D5748
Tensile Modulus [2]					ISO 527-3
2% Secant, MD : 2.0 mil (51 µm)	26300	psi	181	MPa	
2% Secant, TD : 2.0 mil (51 µm)	29600	psi	204	MPa	
Tensile Stress [2]					ISO 527-3
MD : Yield, 2.0 mil (51 µm)	1160	psi	8.00	MPa	
TD : Yield, 2.0 mil (51 µm)	1310	psi	9.00	MPa	
MD : Break, 2.0 mil (51 µm)	5510	psi	38.0	MPa	
TD : Break, 2.0 mil (51 µm)	5370	psi	37.0	MPa	
Tensile Elongation [2]					ISO 527-3
MD : Break, 2.0 mil (51 µm)	570	%	570	%	
TD : Break, 2.0 mil (51 µm)	610	%	610	%	
Dart Drop Impact [2] (2.0 mil (51 µm))	> 850	g	> 850	g	ISO 7765-1/B
Elmendorf Tear Strength [2]					ASTM D1922
MD : 2.0 mil (51 µm)	780	g	780	g	
TD : 2.0 mil (51 µm)	980	g	980	g	
Seal Initiation Temperature [3]					Dow Method
2.0 mil (51 µm)	203	°F	95.0	°C	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	212	°F	100	°C	ASTM D1525
Melting Temperature	253	°F	123	°C	DSC
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss [2] (45°, 2.01 mil (51.0 µm))	64		64		ASTM D2457
Haze [2] (2.01 mil (51.0 µm))	13.0	%	13.0	%	ISO 14782

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Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	374 to 482 °F	190 to 250 °C

Extrusion Notes

Fabrication Conditions For Blown Film Extrusion:

- Die Gap: 0.8-2.8 mm.
- Melt Temperature: 190-250 °C.
- Blow-Up Ratio: 1.5 to 3.5.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

[2] Blown film extruded at 232°C, 2.5:1 BUR, 1.8mm die gap.

[3] Blown film extruded at 232°C, 2.5:1 BUR, 1.8mm die gap.
Temperature at which 5.25 N/15 mm heat seal strength is achieved.

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