ELITE™ 5400G
Enhanced Polyethylene Resin

Overview

ELITE™ 5400G Enhanced Polyethylene Resin is a copolymer produced via INSITE™ Technology from Dow. It offers a unique combination of low seal initiation, moderate stiffness and low blocking tendencies for good performance on automated packaging equipment.

- For food and specialty packaging films
- Extremely high impact resistance and good tear properties
- Good optical properties

Complies with:

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

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.916	g/cm³	0.916	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	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	1	mil	25	µm	
Film Puncture Energy	59.0	in·lb	6.67	J	Dow Method
Film Puncture Force	15.5	lbf	68.9	N	Dow Method
Film Puncture Resistance	390	ft·lb/in³	32.3	J/cm³	Dow Method
Film Toughness					ASTM D882
MD	1010	ft·lb/in³	83.6	J/cm³	
TD	1150	ft·lb/in³	95.1	J/cm³	
Secant Modulus					ASTM D882
1% Secant, MD	31600	psi	218	MPa	
2% Secant, MD	27300	psi	188	MPa	
1% Secant, TD	36500	psi	251	MPa	
2% Secant, TD	30300	psi	209	MPa	
Tensile Strength					ASTM D882
MD : Yield	1510	psi	10.4	MPa	
TD : Yield	1530	psi	10.5	MPa	
MD : Break	5590	psi	38.5	MPa	
TD : Break	5260	psi	36.3	MPa	
Tensile Elongation					ASTM D882
MD : Break	450	%	450	%	
TD : Break	630	%	630	%	
Dart Drop Impact	1000	g	1000	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	280	g	280	g	
TD	600	g	600	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	219	°F	104	°C	ASTM D1525
Melting Temperature (DSC)	253	°F	123	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°)	32		32		ASTM D2457

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Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Haze	20.0 %	20.0 %	ASTM D1003

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5 in.
- Screw Type: DSB II
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 409°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 39 rpm
- Frost Line Height: 38 in.

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.

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