

ELITE™ 5500G

Enhanced Polyethylene Resin

Overview

ELITE* 5500G Enhanced Polyethylene Resin is a copolymer produced via INSITE* Technology. It offers an exceptional combination of processability, low heat seal initiation temperature, package integrity, optical properties, and tear strength.

- A high performance sealant for food and specialty packaging films
- Outstanding combination of seal performance, caulkability, optics, and tear strength
- Easy processability on blown and cast film extrusion equipment

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	0.914 g/cm ³	0.914 g/cm ³	ASTM D792
Base Density ¹	0.914 g/cm ³	0.914 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	1.5 g/10 min	1.5 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.0 mil	25 µm	
Film Puncture Energy	50.0 in·lb	5.65 J	Dow Method
Film Puncture Force	14.0 lbf	62.3 N	Dow Method
Film Puncture Resistance	350 ft·lb/in ³	29.0 J/cm ³	Dow Method
Film Toughness			ASTM D882
MD	1000 ft·lb/in ³	82.7 J/cm ³	
TD	1100 ft·lb/in ³	91.0 J/cm ³	
Secant Modulus			ASTM D882
1% Secant, MD	23500 psi	162 MPa	
2% Secant, MD	20500 psi	141 MPa	
1% Secant, TD	28000 psi	193 MPa	
2% Secant, TD	24000 psi	165 MPa	
Tensile Strength			ASTM D882
MD : Yield	2650 psi	18.3 MPa	
TD : Yield	1500 psi	10.3 MPa	
MD : Break	6000 psi	41.4 MPa	
TD : Break	5500 psi	37.9 MPa	
Tensile Elongation			ASTM D882
MD : Break	400 %	400 %	
TD : Break	500 %	500 %	
Dart Drop Impact	650 g	650 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD	350 g	350 g	
TD	600 g	600 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	207 °F	97.0 °C	ASTM D1525
Melting Temperature (DSC)	252 °F	122 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	45	45	ASTM D2457



Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Haze	12 %	12 %	ASTM D1003

Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	438 °F	226 °C

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: 425°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 42 rpm
- Frost Line Height: 47 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.

