Technical Information

ELITE™ 5960G
Enhanced Polyethylene Resin

Overview

Main Characteristics:

- HDPE with excellent moisture barrier
- Processes with low back pressure and excellent bubble stability

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 2.2
- EU, No 10/2011
- Canadian HPFB No Objection

Consult the regulations for complete details.

Additive

- Antiblock: 3000 ppm
- Slip: No
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.962	g/cm³	0.962	g/cm³	ASTM D792
Base Density [1]	0.960	g/cm³	0.960	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	0.85	g/10 min	0.85	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	3.00	in·lb	0.339	J	
Film Puncture Force	3.00	lbf	13.3	N	
Film Puncture Resistance	17.0	ft·lb/in³	1.41	J/cm³	Dow Method
Film Toughness					ASTM D882
MD	1700	ft·lb/in³	141	J/cm³	
TD	1550	ft·lb/in³	128	J/cm³	
Secant Modulus					ASTM D882
1% Secant, MD	163000	psi	1120	MPa	
2% Secant, MD	127000	psi	876	MPa	
1% Secant, TD	193000	psi	1330	MPa	
2% Secant, TD	148000	psi	1020	MPa	
Tensile Strength					ASTM D882
MD : Yield	4100	psi	28.3	MPa	
TD : Yield	4400	psi	30.3	MPa	
MD : Break	5400	psi	37.2	MPa	
TD : Break	3500	psi	24.1	MPa	
Tensile Elongation					ASTM D882
MD : Break	500	%	500	%	
TD : Break	600	%	600	%	
Dart Drop Impact	40	g	40	g	ASTM D1709A
Elmendorf Tear Strength [2]					ASTM D1922
MD	13	g	13	g	
TD	400	g	400	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	266	°F	130	°C	ASTM D1525
Melting Temperature (DSC)	273	°F	134	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°)	14		14		ASTM D2457
Haze	42	%	42	%	ASTM D1003

Extrusion Notes
Fabrication Conditions For Blown Film: Screw Size: 3.5 in Screw Type: DSB II Die Gap: 70 mil (1.7 mm) Melt Temperature: 425°F Output: 12 lb/hr/in of die circumference Die Diameter: 8 in. Blow-Up Ratio: 2.5 to 1 Frost Line Height: 33 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.

[2] Method B