Technical Information

DOWLEX™ 4056G
Polyethylene Resin

Overview

DOWLEX™ 4056G is a linear low density resin designed for high quality blown film applications requiring a combination of excellent optical properties, tear strength, sealability and excellent processability. DOWLEX 4056G is also designed to offer a low gel level making it ideal for use in lamination films and other specialty packaging applications.

Complies with:

- EU, No 10/2011
- U.S FDA FCN 741

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.917	g/cm³	0.917	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	1.3	g/10 min	1.3	g/10 min	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Puncture Energy					Dow Method
0.98 mil (25 µm)	15.0	in·lb	1.70	J	
2.0 mil (50 µm)	38.1	in·lb	4.30	J	
Film Puncture Force					Dow Method
0.98 mil (25 µm)	1.93	lbf	8.60	N	
2.0 mil (50 µm)	2.43	lbf	10.8	N	
Film Puncture Resistance					Dow Method
0.98 mil (25 µm)	1240	ft·lb/in³	103	J/cm³	
2.0 mil (50 µm)	1500	ft·lb/in³	124	J/cm³	
Dart Drop Impact					ASTM D1709A
0.98 mil (25 µm)	250	g	250	g	
2.0 mil (50 µm)	370	g	370	g	
Elmendorf Tear Strength [1]					ASTM D1922
MD : 0.98 mil (25 µm)	280	g	280	g	
MD : 2.0 mil (50 µm)	650	g	650	g	
TD : 0.98 mil (25 µm)	420	g	420	g	
TD : 2.0 mil (50 µm)	750	g	750	g	
Seal Initiation Temperature [2]					
0.98 mil (25 µm)	221	°F	105	°C	
2.0 mil (50 µm)	221	°F	105	°C	
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss					ASTM D2457
45°, 0.984 mil (25.0 µm)	65		65		
45°, 0.984 mil (25.0 µm) [3]	81		81		
45°, 0.984 mil (25.0 µm) [4]	75		75		
45°, 1.97 mil (50.0 µm)	64		64		
45°, 1.97 mil (50.0 µm) [3]	80		80		
45°, 1.97 mil (50.0 µm) [4]	71		71		

Optical	Nominal Value (English)		Nominal Value (SI)		Test Method
Haze					ASTM D1003
0.984 mil (25.0 µm)	6.30	%	6.30	%	
0.984 mil (25.0 µm) [3]	4.20	%	4.20	%	
0.984 mil (25.0 µm) [4]	4.20	%	4.20	%	
1.97 mil (50.0 µm)	9.60	%	9.60	%	
1.97 mil (50.0 µm) [3]	5.10	%	5.10	%	
1.97 mil (50.0 µm) [4]	5.10	%	5.10	%	

Extrusion	Nominal Value (English)		Nominal Value (SI)	
Melt Temperature	423	°F	217	°C

Extrusion Notes

Fabrication Conditions For Blown Film:

- Melt Temperature: 217°C
- Die Diameter: 200 mm.
- Blow-Up Ratio: 2 to 1

Notes

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

[1] Method B

[2] Temperatures at which 8.8N/25MM heat seal strength is achieved.
Heat Seal Strengths, Topwave HT Tester 0.5 S dwell, 40 psi bar pressure, pull speed (100 mm/sec).

[3] With 20% LDPE

[4] With 40% LDPE