DOWLEX™ 2047G
Polyethylene Resin

Overview

- Linear Low Density Polyethylene
- For high performance stretch film applications
- Outstanding tear strength, impact strength and toughness

Complies with:

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

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
Base Density [1]	0.917	g/cm³	0.917	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	2.3	g/10 min	2.3	g/10 min	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	1	mil	20	µm	
Film Puncture Resistance (0.80 mil (20 µm))	267	ft·lb/in³	22.1	J/cm³	Dow Method
Film Toughness					ASTM D882
MD : 0.80 mil (20 µm)	2130	ft·lb/in³	176	J/cm³	
TD : 0.80 mil (20 µm)	2060	ft·lb/in³	171	J/cm³	
Tensile Strength					ASTM D882
MD : Yield, 0.80 mil (20 µm)	1280	psi	8.79	MPa	
TD : Yield, 0.80 mil (20 µm)	1180	psi	8.16	MPa	
MD : Break, 0.80 mil (20 µm)	7270	psi	50.1	MPa	
TD : Break, 0.80 mil (20 µm)	4180	psi	28.8	MPa	
Tensile Elongation					ASTM D882
MD : Break, 0.80 mil (20 µm)	460	%	460	%	
TD : Break, 0.80 mil (20 µm)	650	%	650	%	
Dart Drop Impact (0.80 mil (20 µm))	210	g	210	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD : 0.80 mil (20 µm)	340	g	340	g	
TD : 0.80 mil (20 µm)	510	g	510	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	208	°F	97.8	°C	ASTM D1525
Melting Temperature (DSC)	252	°F	122	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°, 0.800 mil (20.3 µm))	95		95		ASTM D2457
Haze (0.800 mil (20.3 µm))	0.400	%	0.400	%	ASTM D1003

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Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Chill Roll Temperature: 70°F (21°C)
- Screw Speed: 35 rpm
- Line Speed: 376 fpm (122 m/min)

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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