Technical Data Sheet

DOWLEX™ 2740G (Blown Film) Polyethylene Resin

Description

DOWLEX™ 2740G Polyethylene Resin is suitable for the production of high modulus blown film. The resin offers excellent optical properties and good tear and impact strength and can be used to enable the reduction in gauge of various film structures.

Applications

- Various industrial, consumer and specialty films.

Complies with

- U.S. FDA 21 CFR 177.1520
- EU No 10/2011

Consult the regulations for complete details.

Additive

- Antiblock: No
- Processing aid: No
- Slip: No

ASTM & ISO Properties[1]

Physical	Nominal Value	Unit	Test Method[2]
Density[3]	0.940	g/cm³	ASTM D792
Melt Index[3] (190°C/2.16 kg)	1.0	g/10 min	ISO 1133
Films			
Film Thickness - Tested	50	µm	
Film Puncture Energy[4] (2.0 mil (50 µm))	2.00	J	ASTM D5748
Film Puncture Force[4] (2.0 mil (50 µm))	46.0	N	ASTM D5748
Film Puncture Resistance[4] (2.0 mil (50 µm))	4.0	J/cm³	ASTM D5748
Tensile Modulus[4]			ISO 527-3
2% Secant, MD: 2.0 mil (50 µm)	370	MPa	
2% Secant, TD: 2.0 mil (50 µm	420	MPa	
Tensile Stress[4]			ISO 527-3
MD: Yield, 2.0 mil (50 µm)	26.0	MPa	
TD: Yield, 2.0 mil (50 µm)	25.0	MPa	
MD: Break, 2.0 mil (50 µm)	44.0	MPa	
TD: Break, 2.0 mil (50 µm)	43.0	MPa	

1. Typical properties: these are not to be construed as specifications.
2. ASTM: American Society for Testing and Materials
   ISO: International Standardization Organization
3. Compression Molded.
4. Blown film extruded at 235°C, 50 microns, 2.5 BUR, 1.5 mm die gap.

ASTM & ISO Properties (Cont.)

Films	Nominal Value	Unit	Test Method
Tensile Elongation[4]			ISO 527-3
MD: Break, 2.0 mil (50 µm)	690	%	
TD: Break, 2.0 mil (50 µm)	740	%	
Dart Drop Impact[4] (2.0 mil (25 µm))	120	g	ISO 7765-1/A
Elmendorf Tear Strength[4]			ASTM D1922
MD: 2.0 mil (50 µm)	130	g	
TD: 2.0 mil (50 µm)	240	g	
Thermal			
Vicat Softening Temperature[3]	125	°C	ASTM D1525
Extrusion			
Melt Temperature	190 to 240	°C	
Extrusion Notes			

Fabrication Conditions for Blown Film Resin:

- Die gap: 1.6 to 2.5 mm
- Melt Temperature: 190 to 240°C
- Blow-Up Ratio: 1.5 to 3.5
- Recommended Gauge Range: 10 to 150 µm.

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c. use as a critical component in medical devices that support or sustain human life; or
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Medical Applications Policy (Cont.)

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