

DOWLEX™ 2740

Polyethylene Resin

Overview

DOWLEX™ 2740G Polyethylene Resin is suitable for the production of high modulus blown films. 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.

Note: DOWLEX 2740G Polyethylene Resin should comply with FDA regulation 177.1520 and most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Various industrial, consumer and specialty films.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.940 g/cm ³	0.940 g/cm ³	ASTM D792 ¹
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Puncture Energy (1.97 mil (50.0 µm))	17.7 in·lb	2.00 J	ASTM D5748 ²
Film Puncture Force (1.97 mil (50.0 µm))	10.3 lbf	46.0 N	ASTM D5748 ²
Film Puncture Resistance			ASTM D5748 ²
1.97 mil (50.0 µm)	48.3 ft·lb/in ³	4.00 J/cm ³	
Tensile Modulus			ISO 527-3 ²
2% Secant, MD: 1.97 mil (50.0 µm)	53700 psi	370 MPa	
2% Secant, TD: 1.97 mil (50.0 µm)	60900 psi	420 MPa	
Tensile Stress			ISO 527-3 ²
MD: Yield, 1.97 mil (50.0 µm)	3770 psi	26.0 MPa	
TD: Yield, 1.97 mil (50.0 µm)	3630 psi	25.0 MPa	
MD: Break, 1.97 mil (50.0 µm)	6380 psi	44.0 MPa	
TD: Break, 1.97 mil (50.0 µm)	6240 psi	43.0 MPa	
Tensile Elongation			ISO 527-3 ²
MD: Break, 1.97 mil (50.0 µm)	690 %	690 %	
TD: Break, 1.97 mil (50.0 µm)	740 %	740 %	
Dart Drop Impact (1.97 mil (50.0 µm))	120 g	120 g	ISO 7765-1/A ²
Elmendorf Tear Strength			ASTM D1922 ²
MD: 1.97 mil (50.0 µm)	130 g	130 g	
TD: 1.97 mil (50.0 µm)	240 g	240 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	257 °F	125 °C	ASTM D1525 ¹
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	374 to 464 °F	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

Notes

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

¹ Compression Molded

² Blown film extruded at 235°C, 50 microns, 2.5 BUR, 1.5mm die gap.

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This document is intended for use within Europe

Published December 2008

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