Technical Data Sheet

DOWLEX™ GM 8370G Precision Packaging Resin

Description

DOWLEX™ GM 8370G Polyethylene Packaging Resin is a medium density resin that provides excellent optical properties and is designed for use in a variety of blown film applications needing both stiffness and good optics.

Complies with

- U.S. FDA 21 CFR 177.1520(c)3.2a
- EU, No 10/2011

Consult the regulations for complete details.

Additive

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

Properties[1]

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[2]
Density	0.935	g/cm^3	0.935	g/cm^3	ASTM D792
Melt Index (190°C/2.16 kg)	0.75	g/10 min	0.75	g/10 min	ASTM D1238
Films					
Film Thickness - Tested	2.0	mil	50	µm	
Film Puncture Resistance	109	ft·lb/in^3	9.02	J/cm^3	Internal Method
Tensile Strength					ASTM D882
MD: Yield	2602	psi	18.0	MPa	
TD: Yield	2980	psi	20.6	MPa	
MD: Break	7660	psi	52.8	MPa	
TD: Break	6860	psi	47.3	MPa	
Tensile Elongation					ASTM D882
MD: Break	720	%	720	%	
TD: Break	780	%	780	%	
Dart Drop Impact	170	g	170	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	120	g	120	g	
TD	420	g	420	g	
Thermal					
Vicat Softening Temperature	252	°F	122	°C	ASTM D1525
Melting Temperature (DSC)	257	°F	125	°C	Internal Method

1. Typical properties: these are not to be construed as specifications. Users should confirm the results by their own tests.
2. ASTM: American Society for Testing and Materials

Properties (Cont.)

Optical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Gloss (45º)	56		56		ASTM D2457
Haze	13.1	%	13.1	%	ASTM D1003

Extrusion Notes

Fabrication Conditions:

- Die Diameter: 8 in
- Die Gap: 70 mil
- Melt Temperature: 451°F
- Output: 9.9 lb/hr/in. of die circumference
- Screw Size: 3.5 in.
- Blow-up Ratio: 2.5 to 1
- Screw Speed: 57 rpm
- Frost Line Height: 35 in
- Polymer processing aid was added during film fabrication

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b. use in cardiac prosthetic devices regardless of the length of time involved ("cardiac prosthetic devices" include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
c. use as a critical component in medical devices that support or sustain human life; or
d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.
e. Use as an ingredient of a pharmaceutical injectable application.

Medical Applications Policy (Cont.)

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