



DOWLEX™ 2107GCS

Linear Low Density Polyethylene Resin

Overview

DOWLEX™ 2107GCS Polyethylene Resin is an ultra low gel ethylene octene copolymer. Films made from DOWLEX™ 2107GCS Polyethylene Resin is processable at high line speeds, exhibits excellent stretchability, outstanding tear and impact resistance, as well as exceptional optical properties.

Main Characteristics:

- Linear Low Density Polyethylene

Applications:

- Industrial film
- Hygiene & Medical film

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/cm ³	0.917 g/cm ³	ASTM D792
Base Density ¹	0.919 g/cm ³	0.919 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	2.3 g/10 min	2.3 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	0.91 mil	23 µm	
Tensile Strength ²			ASTM D882
MD : Yield, 0.91 mil (23 µm)	914 psi	6.30 MPa	
TD : Yield, 0.91 mil (23 µm)	856 psi	5.90 MPa	
MD : Break, 0.91 mil (23 µm)	6240 psi	43.0 MPa	
TD : Break, 0.91 mil (23 µm)	4060 psi	28.0 MPa	
Tensile Elongation ²			ASTM D882
MD : Break, 0.91 mil (23 µm)	470 %	470 %	
TD : Break, 0.91 mil (23 µm)	900 %	900 %	
Dart Drop Impact ² (0.91 mil (23 µm))	200 g	200 g	ASTM D1709A
Elmendorf Tear Strength ³			ASTM D1922
MD : 0.91 mil (23 µm)	410 g	410 g	
TD : 0.91 mil (23 µm)	540 g	540 g	
Film Stretch Performance - Max Elongation ⁴	240 %	240 %	Dow Method
Film Stretch Performance - Max Stretch to Puncture ⁵	130	130	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss ² (45°, 0.906 mil (23.0 µm))	92	92	ASTM D2457
Haze ² (0.906 mil (23.0 µm))	70.0 %	70.0 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	428 to 536 °F	220 to 280 °C	

Extrusion Notes

Fabrication Conditions For Cast Film:

- Melt Temperature: 220-280°C
- Chill Roll Temperature: 20-60°C
- Haul-Off Speed: 150-450 m/min
- Recommended Gauge Range: 10-60 µm

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.

² Cast film, 250 m/min; Chill roll 25°C.

³ Method B; Cast film, 250 m/min; Chill roll 25°C.

⁴ Cast film, 250 m/min; Chill roll 25°C; Measured on test stand.

⁵ Cast film, 250 m/min; Chill roll 25°C; Measured on test stand; Max pre-strech before sharp probe penetrates.

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