



# DOWLEX™ GM 8490 Polyethylene Resin

## Overview

DOWLEX™ GM 8490 Polyethylene Resin is specifically designed for large/high output cast film lines to make high performance industrial stretch films.

Films made from DOWLEX™ GM 8490 Polyethylene Resin exhibit an excellent balance of processability, mechanical and stretchability performance properties.

DOWLEX™ GM 8490 Polyethylene Resin is to be used as a core resin in coextruded cast film structures together with a cling resin for films in the thickness range between 10 and 35 microns.

Applications:

- Cast Stretch Wrap Film

Complies with:

- EU, No 10/2011
- U.S. FDA FCN 1539

Consult the regulations for complete details.

## Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.918 g/cm <sup>3</sup>	0.918 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.918 g/cm <sup>3</sup>	0.918 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1 mil	17 µm	
Film Puncture Force <sup>2</sup>	4.85 lbf	21.6 N	
Tensile Strength - MD <sup>3</sup>			ASTM D882
Yield, 0.67 mil (17 µm)	455 psi	3.14 MPa	
Break, 0.67 mil (17 µm)	4970 psi	34.3 MPa	
Tensile Elongation - MD <sup>3</sup> (Break, 0.67 mil (17 µm))	430 %	430 %	ASTM D882
Dart Drop Impact <sup>3</sup>	260 g	260 g	ASTM D1709A
Elmendorf Tear Strength - TD <sup>3</sup> (0.91 mil (23 µm))	260 g	260 g	ASTM D1922
Film Stretch Performace - Max Elongation	320 %	320 %	Dow Method

## Additional Information

Fabrication Conditions for Cast Film Resin:

- Melt Temperature: 220-280°C
- Line Speed 250-600 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.

<sup>1</sup> 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/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

<sup>2</sup> at 200% elongation

<sup>3</sup> Cast film, 220 m/min; Chill roll 25°C

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