



# DOW™ LDPE 545E

## Low Density Polyethylene Resin

### Overview

DOW LDPE™ 545E is 0.9 melt index, medium density LDPE suitable for collation shrink film application offering a good balance between shrink performance (hot and cold shrink), optical properties such as high gloss and low haze and mechanical performance.

Main Characteristics:

- Low Density Polyethylene Resin
- Film Extrusion: Blown
- Collation Shrink Film
- Blends with LLDPE

Complies with:

- EU, No 10/2011
- U.S. FDA 177.1520(c)2.2
- Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.928 g/cm <sup>3</sup>	0.928 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	0.90 g/10 min	0.90 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Coefficient of Friction	0.40 to 0.50	0.40 to 0.50	ASTM D1894
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2 mil	50 µm	
Secant Modulus			ASTM D882
2% Secant, MD : 2.0 mil (50 µm)	31200 psi	215 MPa	
2% Secant, TD : 2.0 mil (50 µm)	32200 psi	222 MPa	
Tensile Strength			ASTM D882
MD : Yield, 2.0 mil (50 µm)	1740 psi	12.0 MPa	
TD : Yield, 2.0 mil (50 µm)	1890 psi	13.0 MPa	
MD : Break, 2.0 mil (50 µm)	3050 psi	21.0 MPa	
TD : Break, 2.0 mil (50 µm)	2610 psi	18.0 MPa	
Tensile Elongation			ASTM D882
MD : Break, 2.0 mil (50 µm)	390 %	390 %	
TD : Break, 2.0 mil (50 µm)	510 %	510 %	
Dart Drop Impact (2.0 mil (50 µm))	110 g	110 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 2.0 mil (50 µm)	200 g	200 g	
TD : 2.0 mil (50 µm)	240 g	240 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	219 °F	104 °C	ASTM D1525
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (20°, 1.97 mil (50.0 µm))	64	64	ASTM D2457
Haze (1.97 mil (50.0 µm))	8.50 %	8.50 %	ASTM D1003

### Notes

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

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