

## Dow DOWLEX™ 2049 Linear Low Density Polyethylene, Food Grade

Category : Polymer , Film , Thermoplastic , Polyethylene (PE) , LLDPE , Linear Low Density Polyethylene (LLDPE), Film Grade

### Material Notes:

DOWLEX® 2049 Polyethylene resin offers excellent tear strength, medium stiffness, outstanding toughness and puncture resistance for films used in food contact applications. When used unmodified and processed according to good manufacturing practices, this resin is technically suitable for food contact end uses. This material complies with U.S. FDA Regulation 21 CFR 177.1520 c 3.2 (a) for food packaging applications. The regulation should be consulted for complete details. Film properties below based on a film thickness of 40 µm.

Data provided by Dow Chemical.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Dow-DOWLEX-2049-Linear-Low-Density-Polyethylene-Food-Grade.php](http://www.lookpolymers.com/polymer_Dow-DOWLEX-2049-Linear-Low-Density-Polyethylene-Food-Grade.php)

Physical Properties	Metric	English	Comments
Density	0.926 g/cc	0.0335 lb/in³	
Thickness	40.0 microns	1.57 mil	
Melt Flow	1.0 g/10 min @Load 2.16 kg	1.0 g/10 min @Load 4.76 lb	Melt flow ratio I10/I2 is 8.

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	24.8 MPa	3600 psi	Molded property
Film Tensile Strength at Yield, MD	12.7 MPa	1840 psi	
Film Tensile Strength at Yield, TD	15.1 MPa	2190 psi	
Tensile Strength, Yield	15.1 MPa	2190 psi	Molded property
Film Elongation at Break, MD	670 %	670 %	
Film Elongation at Break, TD	780 %	780 %	
Elongation at Break	850 %	850 %	Molded value
Modulus of Elasticity	0.330 GPa	47.9 ksi	Molded Sample 2% Secant Modulus
Coefficient of Friction	0.60	0.60	
Elmendorf Tear Strength MD	240 g	240 g	
Elmendorf Tear Strength TD	730 g	730 g	
Elmendorf Tear Strength, MD	6.00 g/micron	152 g/mil	
Elmendorf Tear Strength, TD	18.3 g/micron	465 g/mil	
Dart Drop	5.50 g/micron	140 g/mil	

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Break, MD	39.6 MPa	5740 psi	
Film Tensile Strength at Break, TD	34.1 MPa	4950 psi	

Thermal Properties	Metric	English	Comments
Vicat Softening Point	106 °C	223 °F	

Optical Properties	Metric	English	Comments
Haze	15 %	15 %	
Gloss	45 %	45 %	45°

Processing Properties	Metric	English	Comments
Processing Temperature	232 °C	450 °F	Film extrusion temperature

## Contact Songhan Plastic Technology Co.,Ltd.

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