



CEFOR™ 1221P

Linear Low Density Polyethylene Resin

Overview CEFOR 1221P is a butene Linear Low Density Polyethylene for general cast extrusion film applications.

Main Characteristics:

- Used in Industrial, Food & Specialty Packaging
- Better optics and processability
- Better color stability

Complies with:

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

Consult the regulations for complete details.

Additive:

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

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Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.918 g/cm ³	0.918 g/cm ³	ASTM D792
Base Density	0.918 g/cm ³	0.918 g/cm ³	Dow Method ¹
Melt Mass-Flow Rate (190°C/2.16 kg)	2.0 g/10 min	2.0 g/10 min	ISO 1133
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.0 mil	25 µm	
Film Puncture Force (1.0 mil (25 µm))	11.0 lbf	48.9 N	Dow Method
Film Puncture Resistance (1.0 mil (25 µm))	109 ft·lb/in ³	9.02 J/cm ³	Dow Method
Secant Modulus			ASTM D882
2% Secant, MD : 1.0 mil (25 µm)	21600 psi	149 MPa	
2% Secant, TD : 1.0 mil (25 µm)	21300 psi	147 MPa	
Tensile Strength			ASTM D882
MD : Yield, 1.0 mil (25 µm)	1550 psi	10.7 MPa	
TD : Yield, 1.0 mil (25 µm)	1300 psi	8.96 MPa	
MD : Break, 1.0 mil (25 µm)	5740 psi	39.6 MPa	
TD : Break, 1.0 mil (25 µm)	2990 psi	20.6 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.0 mil (25 µm)	450 %	450 %	
TD : Break, 1.0 mil (25 µm)	680 %	680 %	
Dart Drop Impact (1.0 mil (25 µm))	66 g	66 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922 ²
MD : 1.0 mil (25 µm)	37 g	37 g	
TD : 1.0 mil (25 µm)	370 g	370 g	
Film Stretch Performace - Max Elongation			Dow Method ³
1.0 mil (25.4 µm)	230	230	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	205 °F	96.1 °C	ASTM D1525
Melting Temperature (DSC)	241 °F	116 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (20°, 1.00 mil (25.4 µm))	151	151	ASTM D2457
Haze (1.00 mil (25.4 µm))	0.56 %	0.56 %	ASTM D1003

Extrusion Notes

Fabrication Conditions For Cast Film:

- Melt Temperature: 520°F (271°C)
- Die Gap: 20mil (0.5mm)
- Line Speed: 600 fpm (183 m/min)
- Air Gap: 3.0 in. (7.6 mm)

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 Method B; Modified Rectangular Test Specimen

³ On-Pallet testing

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