

**CLEARFLEX[®]**

LLDPE

CL 106

Linear low density polyethylene

Clearflex CL 106 is a hexene copolymer linear low density polyethylene (C6-LLDPE), with antioxidants, suitable for cast film extrusion.

Films manufactured with Clearflex CL 106 are characterised by high clarity, optimum elongation at break, optimum impact and tear resistance.

Main applications

Clearflex CL 106 is recommended for the production of low cling cast film with high optical properties and good mechanical resistance. It is ideal for the production of power stretch film characterized by a medium pre-stretch.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	3.2
Density	ISO 1183	g/cm ³	0.920
Melting point	Internal method	°C	125
Brittleness point	ASTM D 746	°C	< - 70
Vicat softening point (1 kg)	ISO 306/A	°C	97

Film Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527-3 MD	MPa	10
	ISO 527-3 TD	MPa	10
Tensile strenght at break	ISO 527-3 MD	MPa	38
	ISO 527-3 TD	MPa	29
Elongation at break	ISO 527-3 MD	%	500
	ISO 527-3 TD	%	800
1% Secant modulus	ISO 527-3 MD	MPa	180
	ISO 527-3 TD	MPa	190
Elmendorf tear resistance	ISO 6383-2 MD	N/mm	120
	ISO 6383-2 TD	N/mm	230
Impact resistance F50 (Dart Drop Test)	ISO 7765-1	g	120
Dynamic coefficient of friction (COF)	ISO 8295		> 0.5
Haze	ISO 14782	%	2.5
Gloss, 45°	ASTM D 2457	%	90
Recommended film thickness		micron	8 ÷ 50

(*) Typical value for a cast film extruded between 220°-270°C, line speed between 150-300 m/min and thickness 23 µm. Actual properties are typical and may vary depending upon operating conditions and additive package.

Processing conditions

Clearflex CL 106 is easily processable using cast film technology. Melt temperature should be between 220°C and 270°C.

Clearflex CL 106 can be extruded at thickness below 15 µm.

Storage and handling

Clearflex CL 106 is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping be practised throughout your facility.

Stored in an airy and dry room, at temperatures between 20°C and 30°C, with no direct sunlight, the shelf life is about 18 months. However, before using this product, read and understand the relevant POLIMERI EUROPA Safety Data Sheet.

Availability

Contact the POLIMERI EUROPA sales office nearest to you regarding availability and your specific application requirements.

Food contact status

Clearflex CL 106 complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications. Certificates of compliance are available upon request.

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IMPORTANT: please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data.

Polimeri Europa is available to provide the guaranteed values for each product on demand.