

**CLEARFLEX[®]**

LLDPE

CM 406

Linear low density polyethylene

Clearflex CM 406 is a hexene copolymer linear low density polyethylene (C6-LLDPE), with antioxidants, suitable for cast film extrusion.

Films manufactured with Clearflex CM 406 are characterised by high clarity, optimum elongation, optimum impact and tear resistance.

Main applications

Clearflex CM 406 is recommended for the production of low cling cast film with optimum optical properties and good mechanical resistance.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	3.6
Density	ISO 1183	g/cm ³	0.926
Melting point	Internal method	°C	127
Brittleness point	ASTM D 746	°C	< - 70
Vicat softening point (1 kg)	ISO 306/A	°C	103

Film Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527-3 MD	MPa	11
	ISO 527-3 TD	MPa	11
Tensile strenght at break	ISO 527-3 MD	MPa	36
	ISO 527-3 TD	MPa	30
Elongation at break	ISO 527-3 MD	%	730
	ISO 527-3 TD	%	850
1% Secant modulus	ISO 527-3 MD	MPa	240
	ISO 527-3 TD	MPa	250
Elmendorf tear resistance	ISO 6383-2 MD	N/mm	80
	ISO 6383-2 TD	N/mm	180
Impact resistance F50 (Dart Drop Test)	ISO 7765-1	g	90
Dynamic coefficient of friction (COF)	ISO 8295		> 0.5
Haze	ISO 14782	%	4
Gloss, 45°	ASTM D 2457	%	85
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 CM 406 is easily processable using cast film technology. Melt temperature should be between 220°C and 270°C.

Clearflex CM 406 can be extruded at thickness below 15 µm.

Storage and handling

Clearflex CM 406 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 CM 406 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.

TECHNICAL SERVICE

Polimeri Europa S.p.A.
Piazza Boldrini, 1
20097 S.Donato Milanese, Italia
Tel. +39 02 520.1
Fax + 39 02 520.42901

Polimeri Europa SAS
1 Route des Dunes BP 59
F-59279 MARDYCK - France
Tel. +33 3 28235514
Fax +33 3 28235520

Polimeri Europa S.p.A.
Via Taliercio, 14
46100 Mantova, Italia
Tel. +39 0376 305504
Fax + 39 0376 305299

HEADQUARTER

Polimeri Europa S.p.A.
Piazza Boldrini, 1
20097 San Donato Milanese, Milano - Italia
Tel. +39 02 520.1
Fax + 39 02 520.42901

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.