

**CLEARFLEX[®] H&T**

LLDPE

CLH 196

Linear low density polyethylene

Clearflex H&T CLH 196 is a hexene copolymer linear low density polyethylene (C6-LLDPE), with antioxidants, suitable for cast film extrusion.

Stretch films manufactured with Clearflex H&T CLH 196 have outstanding fracture mechanical properties, mainly Elmendorf tear strength along machine direction (MD) and puncture resistance. Moreover, the holding force is the key property of these films when used in automatic wrapping machines.

Main applications

Clearflex H&T CLH 196 is recommended for production of super-power stretch films. Its properties, especially in terms of holding force and puncture resistance, make Clearflex H&T CLH 196 the ideal choice for packaging goods of irregular shape and for applications requiring a superior mechanical strength.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	2.5
Density	ISO 1183	g/cm ³	0.916
Melting point	Internal method	°C	123
Brittleness point	ASTM D 746	°C	< - 70
Vicat softening point (1 kg)	ISO 306/A	°C	95

Film Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527-3 MD	MPa	8
	ISO 527-3 TD	MPa	9
Tensile strenght at break	ISO 527-3 MD	MPa	38
	ISO 527-3 TD	MPa	30
Elongation at break	ISO 527-3 MD	%	600
	ISO 527-3 TD	%	800
1% Secant modulus	ISO 527-3 MD	MPa	140
	ISO 527-3 TD	MPa	140
Elmendorf tear resistance	ISO 6383-2 MD	N/mm	140
	ISO 6383-2 TD	N/mm	250
Impact resistance F50 (Dart Drop Test)	ISO 7765-1	g	300
Dynamic coefficient of friction (COF)	ISO 8295		> 0.5
Haze	ISO 14782	%	2.5
Gloss, 45°	ASTM D 2457	%	92
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 H&T CLH 196 is easily processable using cast film technology. Melt temperature should be between 220°C and 270°C. Clearflex H&T CLH 196 can be extruded at thickness below 15 µm.

Storage and handling

Clearflex H&T CLH 196 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 H&T CLH 196 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.