



## CLEARFLEX® H&T

## CLH 108

LLDPE

Linear low density polyethylene

Clearflex H&T CLH 108 is an octene copolymer linear low density polyethylene (C8-LLDPE), with antioxidants, suitable for cast film extrusion.

Stretch films obtained from Clearflex H&T CLH 108 show excellent optical properties, high fracture mechanical characteristics, together with excellent performances in automatic wrapping machines (holding force, pre-stretch).

### Main Application

Clearflex H&T CLH 108 is suggested for production of very-high pre-stretch film. The combination of high mechanical properties and low gel content can allow "downgauging" for many applications. In addition to that, for its high resistance to tear propagation and to puncture, together with an outstanding holding force, Clearflex H&T CLH 108 is recommended for "critical" packaging (i.e irregular shape loads, presence of sharp edges, etc...) or loads subjected to severe mechanical stresses during transportation.

### Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	2.5	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	-	g/10min	ISO 1133
Melt Flow Rate (190 °C/21.6 kg)	-	g/10min	ISO 1133
Density	0.919	g/cm <sup>3</sup>	ISO 1183
Melting Point	120	°C	Internal method
Brittleness temperature	< - 70	°C	ASTM D 746
Vicat softening point (1 kg)	95	°C	ISO 306/A

Film Properties *	Value	Unit	Test Method
Tensile stress at yield MD	9	MPa	ISO 527-3
Tensile stress at yield TD	10	MPa	ISO 527-3
Tensile strenght at break MD	48	MPa	ISO 527-3
Tensile strenght at break TD	40	MPa	ISO 527-3
Elongation at break MD	600	%	ISO 527-3
Elongation at break TD	800	%	ISO 527-3
1% Secant modulus MD	140	MPa	ISO 527-3
1% Secant modulus TD	150	MPa	ISO 527-3
Elmendorf tear resistance MD	130	N/mm	ISO 6383-2
Elmendorf tear resistance TD	170	N/mm	ISO 6383-2
Impact resistance F50 (Dart Drop Test)	170	g	ISO 7765-1
Dynamic coefficient of friction (COF)	> 0.5	-	ISO 8295
Haze	0.8	%	ISO 14782
Gloss, 45°	93	%	ASTM D 2463
Recommended film thickness	8 ÷ 50	micron	-

\* 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 notes

Clearflex H&T CLH 108 is easily processable using cast film technology. Melt temperature should be between 220°C and 270°C. Clearflex H&T CLH 108 can be extruded at thickness below 15 µm.

## Storage and Handling

Clearflex H&T CLH 108 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.

The product should be stored in dry conditions at temperatures below 50°C and protected from sunlight.

Improper storage can initiate degradation which results in odour generation, colour changes and can have negative effects on the physical properties of the product.

Before using this product it is recommended to read and understand the relevant Safety Data Sheet.

## Availability

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

## Food Contact Status

Clearflex H&T CLH 108 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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### TECHNICAL SERVICE

Versalis S.p.A.  
Piazza Boldrini, 1  
20097 S. Donato Milanese, Italia  
Tel. +39 02 520.1  
Fax + 39 02 520.42436

Polimeri Europa SAS  
1 Route des Dunes BP 59  
F-59279 MARDYCK - France  
Tel. +33 3 28235515  
Fax +33 3 28235520

Versalis S.p.A.  
Via Taliercio, 14  
46100 Mantova, Italia  
Tel. +39 0376 305667  
Fax +39 02 52043

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### HEADQUARTER

Versalis S.p.A.  
Piazza Boldrini, 1  
20097 S. Donato Milanese, Italia  
Tel. +39 02 520.1  
Fax + 39 02 520.42436

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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.

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