



versalis

Technical Data Sheet

CLEARFLEX®

VLDPE

CL B0

Very low density polyethylene

Clearflex CL B0 is a linear low density polyethylene, with antioxidants, characterised by a very low density (VLDPE).

The resin has a high stretchability and a good cling effect.

Main Applications

Clearflex CL B0 is recommended for applications in which soft touch and flexibility are required, for the improvement of impact resistance when used as additive in blend with other polyolefins formulated with or without mineral fillers. Clearflex CL B0 is also used as cling agent in stretch film.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	3	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	0.911	g/cm ³	ISO 1183
Melting Point	118	°C	Internal method
Brittleness temperature	<- 70	°C	ASTM D 746
Vicat softening point (1 kg)	80	°C	ISO 306/A

Film Properties *	Value	Unit	Test Method
Tensile stress at yield MD	7	MPa	ISO 527-3
Tensile stress at yield TD	7	MPa	ISO 527-3
Tensile stress at break MD	32	MPa	ISO 527-3
Tensile stress at break TD	20	MPa	ISO 527-3
Elongation at break MD	500	%	ISO 527-3
Elongation at break TD	700	%	ISO 527-3
1% Secant modulus MD	80	MPa	ISO 527-3
1% Secant modulus TD	90	MPa	ISO 527-3
Elmendorf tear resistance MD	35	N/mm	ISO 6383-2
Elmendorf tear resistance TD	100	N/mm	ISO 6383-2
Impact resistance F50 (Dart Drop Test)	120	g	ISO 7765-1/A
Dynamic coefficient of friction (COF)	> 0.5	-	ISO 8295
Haze	6	%	ISO 14782
Gloss, 45°	70	%	ASTM D 2457
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 CL B0 is easily processable. Melt temperature should be between 220°C and 270°C.

Storage and Handling

Clearflex CL B0 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 should 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 CL B0 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.

