



versalis

Technical Data Sheet

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CLEARFLEX® H&T

FGH B3

LLDPE

Linear low density polyethylene

Clearflex H&T FGH B3 is a linear low density polyethylene, made by proprietary enhanced Z-N catalyst, suitable for blown film technology. The resin, containing antioxidants slip agent and antiblock, is characterized by a very low density and high molecular weight. Compared to std Clearflex VLDPE grades, Clearflex H&T FGH B3 offers lower seal initiation temperature, excellent optical properties and mechanical performances.

Main Applications

Clearflex H&T FGH B3 is recommended to produce blown film requiring a combination of optical properties, puncture resistance and impact strength and very good sealability.

Clearflex H&T FGH B3 is also recommended in the production of Lamination film.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	0.9	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	110	°C	Internal method
Brittleness temperature	<- 75	°C	ASTM D 746
Vicat softening point (1 kg)	85	°C	ISO 306/A

Film Properties *	Value	Unit	Test Method
Tensile stress at yield MD	5	MPa	ISO 527
Tensile stress at yield TD	6	MPa	ISO 527
Tensile stress at break MD	31	MPa	ISO 527
Tensile stress at break TD	29	MPa	ISO 527
Elongation at break MD	460	%	ISO 527
Elongation at break TD	660	%	ISO 527
1% Secant modulus MD	140	MPa	ISO 527
1% Secant modulus TD	135	MPa	ISO 527
Elmendorf tear resistance MD	75	N/mm	ISO 6383-2
Elmendorf tear resistance TD	115	N/mm	ISO 6383-2
Impact resistance F50 (Dart Drop Test)	270	g	ISO 7765-1/A
Dynamic coefficient of friction (COF)	> 0.5	-	ISO 8295
Haze	4	%	ISO 14782
Gloss, 45°	72	%	ASTM D 2457
Recommended film thickness	10 ÷ 50	micron	-

(*) Typical value for a blown film with BUR 1:2.5 at temperature between 190°C and 230°C. Actual properties are typical and may vary depending upon operating conditions and additive package.

Processing notes

Clearflex FGH B3 is easily processable using blown film technology. Melt temperature should be between 200°C and 230°C.

Thickness recommended are between 10 and 50 µm.

Storage and Handling

Clearflex FGH B3 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 FGH B3 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.

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