PRODUCT DATA SHEET

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Linear Low Density Polyethylene

HF2110

Technical support:
Polymer Technology Services Centre
22 Pressburg Road,
Modderfontein, 1645
South Africa

Tel: +27 (0)11 458 0700
Fax: +27 (0)11 458 0734

Sales office:
Sasol Base Chemicals
PO Box 5486
Johannesburg
2000
South Africa

polymers@sasol.com

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www.sasol.com

Melt Index: 1.0 g/10min

Density: 0.921 g/cm³

Features
- Hexene copolymer
- Outstanding mechanical properties
- Good heat sealing range
- Good stiffness

Applications
- Blown stretch film
- Blending into LDPE

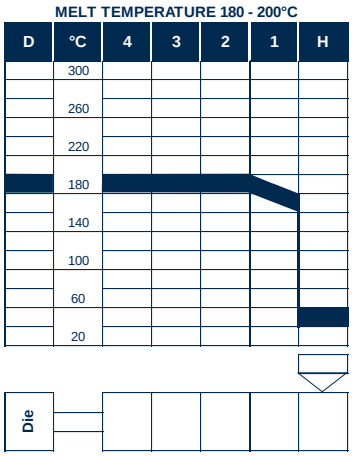
Additives
- Antioxidant
- TNPP free

Typical properties (not to be construed as specifications)		Value (SI)	Value (English)	Method
Resin Properties	Melt Index (190°C/2.16kg)	1.0 g/10min	1.0 g/10min	ASTM D1238
	Nominal density	0.921 g/cm^3	0.921 g/cm^3	ASTM D1505
Film Properties	Tensile strength at yield MD	10 MPa	1450 psi	ASTM D882
	Tensile strength at yield TD	11 MPa	1595 psi	ASTM D882
	Tensile strength at break MD	47 MPa	6817 psi	ASTM D882
	Tensile strength at break TD	41 MPa	5947 psi	ASTM D882
	Elongation MD	585 %	585 %	ASTM D882
	Elongation TD	750 %	750 %	ASTM D882
	Elmendorf Tear MD	13 g/µm	13 g/µm	ASTM D1922
	Elmendorf Tear TD	24 g/µm	24 g/µm	ASTM D1922
	Dart Drop Impact Strength (F_{50})	170 g	170 g	ASTM D1709A
	Haze	19%	19%	ASTM D1003
	Gloss (45°)	33	33	ASTM D2457

The above values were measured on a 30 µm film produced on a 75 mm Barmag extruder, using 190°C melt temperature, with a 2.0:1 BUR and a die gap of 3.0 mm.

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Blown film extrusion



Processing

HF2110 should be processed on equipment designed or retrofitted for LLDPE:

- Increased die gap unless a processing aid is incorporated.
- Suitable screw (e.g. Sasol design full length general purpose screw).
- Aerodynamic cooling systems.

Recommended screenpack: 20/40/20 BS mesh.

BUR of greater than 2.0:1 recommended.

Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours. Please consult the material safety data sheet (SDS) for more detailed information.

Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight during storage. If stored in cool (<25°C), dry area with low ambient light levels, polyolefin resins are expected to maintain their original material and processing properties for at least 12 months.

Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and water mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

Conveying

Conveying equipment should be designed to prevent accumulation of 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:

1.be equipped with adequate filters

2.is operated and maintained in such a manner to ensure no leaks develop

3.that adequate grounding exists at all times

We further recommend that good housekeeping be practised throughout the facility.

Regulatory & Legal Compliance

This material complies with FDA regulation 21 CFR 177.1520 when used unmodified and according to good manufacturing practices for food contact applications. Refer to applicable food contact compliance statement which is available on request.

This material is not medically approved and should therefore not be used in any such application.

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