PRODUCT DATA SHEET

Linear Low Density Polyethylene

HF2020

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Date of issue: January 2020

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Melt Index: 2.0 g/10min

Density: 0.920 g/cm³

Features
- Hexene copolymer
- Medium strength LLDPE
- Good heat sealing range

Applications
- Cast monolayer and coextruded film
- Stretch film
- Pipe and profile extrusion

Additives
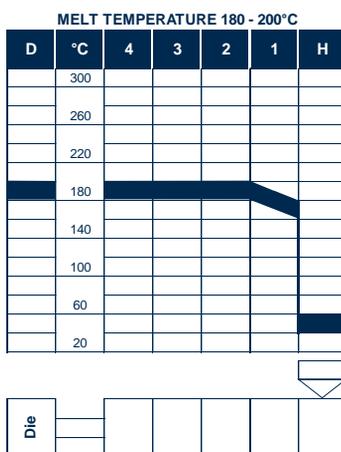- Antioxidant
- Heat stabilizer
- TNPP free

Typical properties (not to be construed as specifications)		Value (SI)	Value (English)	Method
Resin Properties	Melt Index (190°C/2.16kg)	2.0 g/10min	2.0 g/10min	ASTM D1238
	Nominal density	0.920 g/cm³	0.920 g/cm³	ASTM D1505
Film Properties	Tensile strength at yield MD	10 MPa	1450 psi	ASTM D882
	Tensile strength at yield TD	11 MPa	1600 psi	ASTM D882
	Tensile strength at break MD	37 MPa	5400 psi	ASTM D882
	Tensile strength at break TD	35 MPa	5100 psi	ASTM D882
	Elongation MD	633 %	633 %	ASTM D882
	Elongation TD	739 %	739 %	ASTM D882
	Elmendorf Tear MD	11 g/µm	11 g/µm	ASTM D1922
	Elmendorf Tear TD	31 g/µm	31 g/µm	ASTM D1922
	Dart Drop Impact Strength (F_{50})	128 g	128 g	ASTM D1709A

Mechanical and surface properties will be dependent on mode of extrusion. In coextruded film and laminates, the overall properties will be dependent on the combined effect of the materials used.

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.

Cast film extrusion

MELT TEMPERATURE 240 - 300°C

D	°C	4	3	2	1	H
	300					
	260					
	220					
	180					
	140					
	100					
	60					
	20					

Die

Blown film extrusion

MELT TEMPERATURE 180 - 200°C

D	°C	4	3	2	1	H
	300					
	260					
	220					
	180					
	140					
	100					
	60					
	20					

Die

Processing

HF2020 is formulated for cast monolayer and coextruded film, and has good thermal stability at elevated temperatures. Recommended melt temperature range is between 240°C and 300°C for cast film and 180°C and 200°C for blown film.

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.