PRODUCT DATA SHEET

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# Linear Low Density Polyethylene

# HF2020

## 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

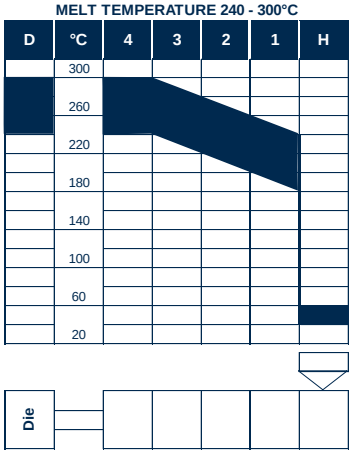
| Typical properties (not to be construed as specifications) | | Value (SI) | Value (English) | Method |
|---|---|---|---|---|
| **Resin Properties** | Melt Index (190°C/2.16kg) | 2.0 g/10min | 2.0 g/10min | ASTM D1238 |
| | Nominal density | 0.920 g/cm$^3$ | 0.920 g/cm$^3$ | ASTM D1505 |
| **Film Properties** | Tensile strength at yield MD | 10 MPa | 1450 psi | ASTM D882 |
| | Tensile strength at yield TD | 11 MPa | 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.**

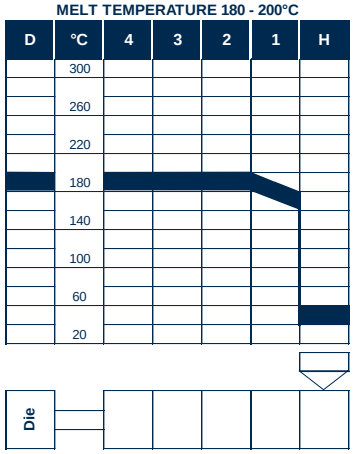
**Cast film extrusion**

MELT TEMPERATURE 240 - 300°C




**Blown film extrusion**

MELT TEMPERATURE 180 - 200°C




## 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.