Product data sheet

HF140

Linear Low Density Polyethylene for film extrusion

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reaching new frontiers

Sasol Polymers
Polyolefins Business

Sasol Polymers LLDPE: HF140 Density: 0.920 g/cm³ Melt index: 2.0g/10min

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 stabiliser

Material properties (typical values not to be construed as specifications)

		Value	Unit	Test method	Based on
MFI (190°C/2.16kg)		2.0	g/10 min	PTM058	ASTM D1238
Nominal density		0.920	g/cm^3	PTM002	ASTM D1505
Tensile strength at yield	MD	10	MPa	PTM006	ASTM D882
	TD	11	MPa	PTM006	ASTM D882
Tensile strength at break	MD	37	MPa	PTM006	ASTM D882
	TD	35	MPa	PTM006	ASTM D882
Elongation	MD	633	%	PTM006	ASTM D882
	TD	739	%	PTM006	ASTM D882
Tear strength	MD	11	g/µm	PTM009	ASTM D1922
	TD	31	g/µm	PTM009	ASTM D1922
Impact strength		128	$F_{50}g$	PTM066	ASTM D1709

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 obtained from 30µm film produced on a 75mm Barmag extruder with 190°C melt temperature using a 2:1 blow ratio and a die gap of 3.0mm

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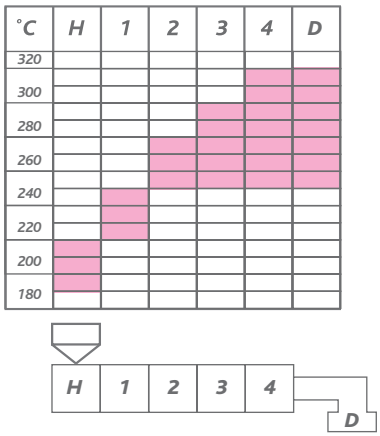
Typical processing conditions

Cast film



HF 140 is formulated for cast monolayer and coextruded film, and has good thermal stability at elevated temperatures.
Recommended melt temperature range is between 250°C and 300°C for cast film and 180°C and 200°C for blown film.
Good startup and shutdown procedures are necessary to prevent degradation.

Packaging

Sasol Polymers polyolefin resins are supplied in pellet form packed in 25kg bags. Alternative packaging modes for polypropylene resins are available for selected grades.

Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses and heat resistant gloves are suggested as a minimal precaution to prevent possible mechanical or thermal injuries to the eyes and skin. Fabrication areas should be ventilated to carry away fumes or vapours.

Conveying equipment should be designed to prevent accumulation of fines or dust particles that are contained in all polyolefin resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. Sasol Polymers recommend the conveying system used:

- *be equipped with adequate filters*
- *is operated and maintained in such a manner to ensure no leaks develop*
- *that adequate grounding exists at all times*

Sasol Polymers further recommend that good housekeeping be practised throughout the manufacturing facility. Polymer pellets may pose a slippage hazard if spilled.

Storage

As ultraviolet light may cause a change in the material properties, all polyolefin resins should be protected from direct sunlight during storage. Under cool, dry, dark conditions Sasol Polymers polyolefin resins are expected to maintain their original material and processing properties for at least 18 months.