

LLDPE - Product Data Sheet

HF 125

LLDPE

sasol
reaching new frontiers



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Information

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Sasol Polymers
Polythene Business

Film

Melt index: 1.0

Density: 0.923

Features

UCC gas phase resin
Hexene copolymer
Outstanding mechanical properties
Good heat sealing range
Excellent drawdown
Good flexibility

Additives

Low slip
Medium antiblock
Antioxidants

Applications

Lamination
Liquid packaging (FFS)

Performance properties - HF 125

Test		Value	Unit	Test method
MFI (190°C/2.16kg)		1.0	g/10min	ASTM D1238
Nominal density		0.923	g/cm ³	ASTM D1505
Tensile strength at yield	MD	9.6	MPa	ASTM D882
	TD	10.4	MPa	ASTM D882
Tensile strength at break	MD	34.8	MPa	ASTM D882
	TD	29.2	MPa	ASTM D882
Elongation	MD	332	%	ASTM D882
	TD	479	%	ASTM D882
Tear strength	MD	6.2	g/μm	ASTM D1922
	TD	23.6	g/μm	ASTM D1922
Impact strength		166	F _{50g}	ASTM D1709
Gloss		54	units	ASTM D2457
Haze		12	%	ASTM D1003
Coefficient of friction	μs	0.29	units	ASTM D1894
	μd	0.29	units	ASTM D1894

The above values were calculated from data for 30μm film produced on a 75mm Barmag extruder with 190°C melt temperature using a 2.3:1 blow ratio.

Processing

HF 125 should be processed on equipment designed or retrofitted for LLDPE ie.

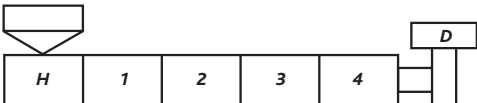
1. Increased die gap (~3mm) unless a processing aid is incorporated.
2. Suitable screw eg. Sasol Polymers design full length general purpose decreasing pitch.
3. Aerodynamic cooling systems.

Recommended melt temperature: 190 °C (minimum 180 °C, maximum 200 °C)

Recommended screen pack: 20/40/20 BS mesh.

Blow ratios of greater than 2:1 recommended.

°C	H	1	2	3	4	D
220						
200						
180						
160						
140						



Presentation

Supplied in pellet form packed in 25kg bags.

Food Packaging

This material complies with F&DA regulation 177.1520 when used unmodified and according to good manufacturing practices for food contact applications. Accordingly, this material may be used in all food contact applications (except holding food during cooking).

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 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 good housekeeping be practised throughout the facility.

Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight during storage.

Handling

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

Combustibility

Polyethylene resins will burn when supplied with 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.