



### Sasol Polymers LLDPE: HF116

**Density: 0.924 g/cm<sup>3</sup>**

**MFI: 1.0 g/10min**

#### Features

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

#### Applications

- General packaging film
- Blending into LDPE for shrink film

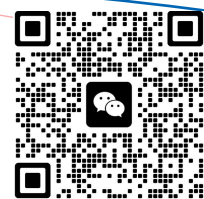
#### Additives

- Antioxidant

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

|                                    | Value | Unit              | Test method |
|------------------------------------|-------|-------------------|-------------|
| MFI (190°C/2.16kg)                 | 1.0   | g/10 min          | ASTM D1238  |
| Nominal density                    | 0.924 | g/cm <sup>3</sup> | ASTM D1505  |
| Tensile strength at yield MD       | 11    | MPa               | ASTM D882   |
| TD                                 | 12    | MPa               | ASTM D882   |
| Tensile strength at break MD       | 44    | MPa               | ASTM D882   |
| TD                                 | 36    | MPa               | ASTM D882   |
| Elongation MD                      | 556   | %                 | ASTM D882   |
| TD                                 | 713   | %                 | ASTM D882   |
| Tear strength MD                   | 9     | g/μm              | ASTM D1922  |
| TD                                 | 24    | g/μm              | ASTM D1922  |
| Impact strength (F <sub>50</sub> ) | 137   | g                 | ASTM D1709  |
| Haze                               | 18    | %                 | ASTM D1003  |
| Gloss @ 45°                        | 36    | units             | ASTM D2457  |

The above values were calculated from data for 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.



# Product data sheet - HF116



## Typical processing conditions

### Blown film

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



HF116 should be processed on equipment designed or retrofitted for LLDPE, i.e.

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

Recommended melt temperature: 190°C  
Recommended screen pack: 20/40/20 BS mesh.  
Blow ratios of greater than 2:1 recommended.

## 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.

