

# LDPE - Product Data Sheet

**SASOL**  
reaching new frontiers



## LT033

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**Sasol Polymers**  
**Polyolefin Business**

## Film

**Melt Index: 0.33**

**Density: 0.921**

### Features

Tubular resin  
Good mechanical properties  
High impact strength  
High tear strength  
Wide processing range

### Additives

Antioxidant

### Applications

Heavy duty sacks  
Agricultural film  
Thick film  
Heavy duty shrink film

## Performance properties - LT033

Test	Value	Unit	Test method	Based on
MFI (190°C/2.16kg)	0.33	g/10 min	PTM 058	ASTM D1238
Nominal density	0.921	g/cm	PTM 002	ASTM D1505
Tensile strength at yield	MD 11	MPa	PTM 006	ASTM D882
	TD 10	MPa	PTM 006	ASTM D882
Tensile strength at break	MD 23	MPa	PTM 006	ASTM D882
	TD 20	MPa	PTM 006	ASTM D882
Elongation	MD 510	%	PTM 006	ASTM D882
	TD 610	%	PTM 006	ASTM D882
Elmendorf tear	MD 3	g/μm	PTM 009	ASTM D1922
	TD 5	g/μm	PTM 009	ASTM D1922
Impact strength	300	F <sub>50g</sub>	PTM 066	ASTM D1709

The above values were measured on 100μm film produced on a 65mm Macchi extruder with a Macchi LDPE screw and a 250mm die, using 218°C melt temperature, 625mm FLH, 2.5:1 blow ratio and a die gap of 0.8mm.

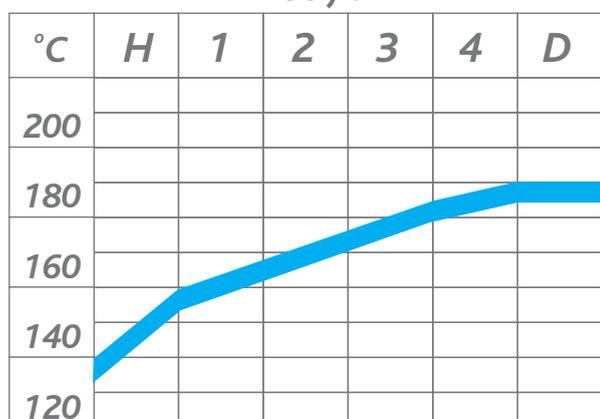
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## Processing

Optimum melt temperature: 200°C - 220°C. Should be processed on a conventional LDPE extruder, but can be processed on a LLDPE extruder (wide die gap) with drawdown limitations, inferior mechanical and film shrinkage properties. The optimum blow ratio is 2:1. However excellent properties are obtained at a blow ratio of 1.4:1 (for > 100µm thick film). Recommended screen pack: 60/100/60 BS mesh.

LT033 film



## Presentation

Supplied in pellet form 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 foods 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 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.

## 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 protection 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 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.