



Sasol Polymers LDPE: LT033

Features

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

Density: 0.921 g/cm³

Applications

- Heavy duty shrink film (>100µm)
- Heavy duty sacks
- Agricultural film
- Thick film

MFI: 0.33 g/10min

Additives

- Antioxidant

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

	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 ³	PTM 002	ASTM D1505
Tensile strength at yield	11	MPa	PTM 006	ASTM D882
	10	MPa	PTM 006	ASTM D882
Tensile strength at break	23	MPa	PTM 006	ASTM D882
	20	MPa	PTM 006	ASTM D882
Elongation	510	%	PTM 006	ASTM D882
	610	%	PTM 006	ASTM D882
Elmendorf tear	3	g/µm	PTM 009	ASTM D1922
	5	g/µm	PTM 009	ASTM D1922
Impact strength	300	F _{50g}	PTM 066	ASTM D1709

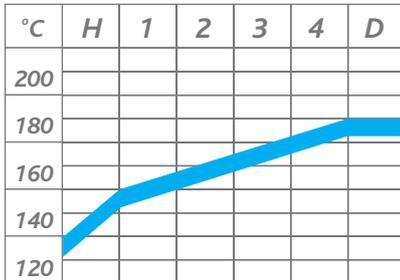
The above values were measured on 100µm film produced on a 65mm Macchi extruder with a Macchi LDPE screw and a 250mm die, using 218°C melt temperature, 625mm FLH, 2.5:1 blow ratio and a die gap of 0.8mm.





Typical processing conditions

Film Extrusion



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.

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.

