

Sasol Polymers Middle East

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LFI2047A

Low Density Polyethylene

Product Description

LFI2047A is a high molecular weight low density polyethylene film grade combining good flexible extrusion behavior and superior mechanical properties.

Applications

LFI2047A is suitable for very thin film requiring very good optical properties and thus very suitable for laundry and textile packaging.

Typical data

Film Properties			
Film properties have been measured at 25µm with a bur of 3.			
Properties	Value	Unit	Test method
Density	920	kg/m ³	ISO 1183(A)
MFR (190°C/2.16kg)	4.7	Dg/min	ISO 1133
Impact Strength	15	KJ/m	ASTM D 4272
Tear Strength(TD)	25	kN/m	ISO 6383-2
Tear Strength(MD)	80	kN/m	ISO 6383-2
Yield Stress (TD)	11	MPa	ISO 527
Yield Stress (MD)	12	MPa	ISO 527
Strain at Break(TD)	>500	%	ISO 527
Strain at Break (MD)	100	%	ISO 527
Modulus of Elasticity (TD)	200	MPa	ISO 527
Modulus of Elasticity (MD)	200	MPa	ISO 527
Coefficient of friction	0.2	-	ASTM D 1894
Blocking	20	g	Sabtec
Re-blocking	10	g	Sabtec
Haze	9	%	ASTM D 1003A
Gloss (45 ⁰)	55	%	ASTM D 2457
Clarity	21	mV	Sabtec

The above data are typical laboratory average . They are intended to serve as guides only.

Additive: Antioxidant, Slip agent, Anti blocking agent

Producer: Arya Sasol Petrochemical Co.

Licenser: Sabtec CTR®

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Processing

LFI2047A is a grade with high level of anti block and slip agent (Erucamide) the grade has an excellent draw down ability. The films produced from this grade are stiff, have excellent optical properties, low COF and no blocking.

Packaging

Supplied in pellet form and can be packaged in 25Kg Bags, one ton semi bulk or 17 tons bulk containers.

Food packaging

LFI2047A meets the relevant requirements of plastics directive 2002/72/EC (06-08-2002) and its amendments till directive 2008/39EC relating to plastic materials and articles intended to come into contact with foodstuffs.

Pharmaceutical Application

LFI2047A meets the requirements of the European pharmacopeia version 6 section 3.1.5 for pharmaceutical application.

Conveying

Conveying equipment should be designed prevents accumulation of 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 recommended that good housekeeping will practiced throughout the facility

Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the ambient temperature should not exceed 50 0C. It is also advisable to process polyethylene resins (in pelletized or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

Handling

Minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapors.

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 mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

Note:

this information is based on our current knowledge and experience .in view of many factors that may affect processing and application, this data does not relive processors from the responsibility of carrying out their own tests and experiments, neither does it imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.