شرکت پلیمر آریا ساسول
ARYA SASOL POLYMER COMPANY
سهامی عام

**Product Data Sheet**

# LFI2125A

Low Density Polyethylene

## Product Description

LFI2125A is a low density polyethylene, with a medium level of anti-block and slip agent (Erucamide). This grade offers good optical properties, low energy consumption during processing, adequate COF level and excellent draw down. LFI2125A has been manufactured under SABTEC licensed technology.

## General Information

| | | | |
|---|---|---|---|
| **Status** | Commercial: Active | | |
| **Application** | Blown film extrusion, packaging film for food and goods, general lamination film | | |
| **Form(s)** | Pellet | | |
| **Attribute** | Good toughness, high speed converting without sticking, good optical properties, suitable when ultimate down gauging is required | | |
| **Additives** | Antioxidant: Yes | Antiblock : Yes | Slip Agent : Yes |

| Typical Properties | Typical Value [1] | Unit | Test Method |
|---|---|---|---|
| **Physical** | | | |
| MFI (190 °C /2.16 Kg) | 2.5 | dg/min | ISO 1133 |
| Density [2] | 921 | kg/m$^3$ | ISO 1183 |
| **Mechanical** [3] | | | |
| Impact Strength | 23 | kJ/m | ASTM D4272 |
| Tear Strength (TD) | 25 | kN/m | ISO 6383-2 |
| Tear Strength (MD) | 70 | kN/m | ISO 6383-2 |
| Yield Stress (TD) | 11 | MPa | ISO 527-1,3 |
| Yield Stress (MD) | 13 | MPa | ISO 527-1,3 |
| Tensile Stress at Break (TD) | 19 | MPa | ISO 527-1,3 |
| Tensile Stress at Break (MD) | 30 | MPa | ISO 527-1,3 |
| Strain at Break (TD) | > 500 | % | ISO 527-1,3 |
| Strain at Break (MD) | > 100 | % | ISO 527-1,3 |

| | | | |
|---|---|---|---|
| Modulus of Elasticity (TD) | 180 | MPa | ISO 527-1,3 |
| Modulus of Elasticity (MD) | 190 | MPa | ISO 527-1,3 |
| Coefficient of Friction | 0.2 | - | ASTM D1894 |
| Blocking | < 5 | g | ASTM D3354 |
| Re-blocking | 0 | g | SABTEC method |
| **Optical** | | | |
| Haze | 9 | % | ASTM D1003 A |
| Gloss (45°) | 60 | % | ASTM D2457 |
| Clarity | 30 | % | SABTEC method |
| **Recommended Process Conditions** [4] | | | |
| Extruder temperature profile: 170 -190°C | Blow up ratio: 2-3 | | |
| Film thickness: 20-50 µm | | | |

1. Typical values: these are not to be construed as specifications.
2. The density parameter was determined on compression-molded specimens, which were prepared in accordance with procedure C of ASTM D4703, Annex A1.
3. Properties are based on 25 µm blown film produced at a melt temperature of 165°C and 3 BUR using 100% LFI2125A
4. Please note that, these processing conditions are recommended by producer only for 100% LFI2125A resin (not in the case of blending with any other compatible material), but because of the many particular factors which are outside our knowledge and control, and may affect the use of product, no warranty is given for the foregoing data.

## Further Information

### Health and Safety

The resin is manufactured to the highest standards, but special requirements apply to certain applications such as food end-use contact and direct medical use. Specific information on regulatory compliance can be requested via customer.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation may have an unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapors. Legislation on the control of emissions and pollution prevention should be observed. Workers should be protected from the possibility of skin or eye contact with molten polymer.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. While burning, the resin contributes high heat and may generate a dense black smoke.

Recycled resins may have previously been used as packaging for, or may have otherwise been in contact with, hazardous goods. Converters are responsible for taking all necessary precautions to ensure that recycled resins are safe for continued use.

The detailed information about safety, handling, individual protection and waste disposal is provided in the relevant Safety Data Sheet. Additional specific information can be requested via customer.

### Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles. These particles can, under certain conditions pose an explosion hazard. We recommend that the conveying system will be equipped with adequate filters and be operated and maintained in the way that ensure no leaks develop.

## Storage

Polyethylene resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the storage temperature should not exceed 50 °C. It is also advisable to process polyethylene resins (in pelletized or powder from) within 6 months after delivery, because excessive aging of polyethylene can lead to a deterioration in quality. Arya Sasol Polymer Company would not give any warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance.

The information provided in this Product Data Sheet has been based upon the current level of knowledge and experience. They are not to be interpreted as a warranty for specific product characteristics. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. Customer is responsible for determining whether the products and the information in this document are appropriate for customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document.

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