

LDPE-LS0085

Low Density Polyethylene for Film Application

General Description

LS0085 is a high molecular weight low density film grade polyethylene combining good flexible extrusion behavior and superior mechanical properties.

Additive: Antioxidant

Typical Applications

- Thin shrink film

Product Specification

| PHYSICAL/MECHANICAL PROPERTIES | VALUE* | UNIT | TEST METHOD |
|--------------------------------|--------|-------------------|---------------|
| MFI (190 °C /2 .16 Kg) | 0.85 | g/10 min | ISO 1133 |
| Density | 921 | kg/m ³ | ISO 1183 (A) |
| Impact strength | 28 | kJ/m | ASTM D 4272 |
| Tear strength (TD) | 30 | kN/m | ISO 6383-2 |
| Tear strength (MD) | 40 | kN/m | ISO 6383-2 |
| Yield stress (TD) | 11 | MPa | ISO 527 |
| Yield stress (MD) | 12 | MPa | ISO 527 |
| Tensile stress at break (TD) | 21 | MPa | ISO 527 |
| Tensile stress at break (MD) | 24 | MPa | ISO 527 |
| Strain at break (TD) | >500 | % | ISO 527 |
| Strain at break (MD) | >200 | % | ISO 527 |
| Modulus of elasticity (TD) | 170 | MPa | ISO 527 |
| Modulus of elasticity (MD) | 160 | MPa | ISO 527 |
| Coefficient of friction | 1.0 | | ASTM D 1894 |
| Blocking | 40 | g | SABTEC method |
| Re-blocking | 140 | g | SABTEC method |
| Optical properties | | | |
| Haze | 9 | % | ASTM D 1003A |
| Gloss (45°) | 60 | % | ASTM D 2457 |
| Clarity | 27 | mV | SABTEC method |

* Typical values; not to be considered as product specification.

Note: Film properties have been obtained at 45 µm with a BUR of 3.

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NOTICE: All tests were performed under laboratory conditions and standard testing methods. The data are intended as a general guide only and do not necessarily represent results that might be obtained elsewhere. The use of this product must be guided by the user's own methods for selection of proper formulation. RAYOMAND disclaims any responsibility for misuse or misapplication of this product. RAYOMAND makes no warranty of merchantability and there is no warranty that goods supplied shall be fit for any particular purpose. RAYOMAND liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited. The customer is responsible for determining whether products and information in this document are appropriate for the customer's use.

Processing

LS0085 is a grade with good toughness and good biaxial shrink properties. The material contains on additives, has a low energy consumption during processing and a good draw down ability.

Packaging

Supplied in pellet form and can be packaged in 25kg bags, 1 ton semi bulk or 17 ton bulk.

Food contact

LS0085 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

LS0085 meets the requirements of the European pharmacopeia version 6 section 3.1.5 for pharmaceutical application.

Conveying

Conveying equipment should be designed prevent 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 °C. 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.