

Process Optimization



ASPC

Doc Name:

Product Data sheet - LDPE- Low Density Polyethylene
LTM 2447/47

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Doc No.

TEC-PRO-PDS-005

Rev: 4

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Typical Data

Properties	Value	unit	Test method
Physical Properties			
MFR (190 °C /2 .16 Kg)	4.7	dg/min	ISO 1133
Density	924	Kg/m3	ISO 1183 (A)
Mechanical properties			
Impact strength	13	KJ/m	ASTM D 4272
Tear strength (TD)	30	KN/m	ISO 6383-2
Tear Strength (MD)	90	KN/m	ISO 6383-2
Yield stress (TD)	13	MPa	ISO 527
Yield stress (MD)	13	MPa	ISO 527
Tensile Stress at break (TD)	16	MPa	ISO 527
Tensile Stress at break (MD)	27	MPa	ISO 527
Strain at Break (TD)	>450	%	ISO 527
Strain at Break (MD)	>100	%	ISO 527
Modulus of Elasticity (TD)	250	MPa	ISO 527
Modulus of Elasticity (MD)	230	MPa	ISO 527
Coefficient of friction	0.2		ASTM D 1894
Blocking	<5	g	SABTEC method
Re-blocking	20	g	SABTEC method
Optical properties			
Haze	9	%	ASTM D 1003A
Gloss (45°)	55	%	ASTM D 2457
Clarity	28	mV	SABTEC method
Additive: Antioxidant , Slip agent , Anti blocking agent			


Film properties have been measured at 25µm with a BUR of 3.

Application

LTM 2447/47 is especially suitable for stiffer thin films for textile packaging

General information

LTL 2447/47 has been manufactured using SABTEC licensed technology.

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Processing

LTM2447/47 is a grade with a very high level of anti block and a high level of 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, 1 ton semi bulk or 17 ton bulk.

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Food packaging

The above mentioned grade 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

The above mentioned grade 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 0C. It is also advisable to process polyethylene resins (in pelletized or powder from) 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.