Lupolen 2427 K

Polyethylene, Low Density

Product Description

Lupolen 2427 K is an additivated, low density polyethylene. It contains an antioxidant, slip and anti-blocking agent. It is delivered in pellet form.

Foodlaw compliance information about this product can be found in separate product documentation.

This product is not intended for use in medical and pharmaceutical applications.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Africa-Middle East
Processing Methods	Blown Film, Cast Film
Features	Unspecified Antiblocking , Low Friction, Opticals, Good Processability, Unspecified Slip
Typical Customer Applications	Blown Film, Cast Film, Film, Food Packaging Film, Other Industrial, Shrink Film

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.924	g/cm³
Melt flow rate (MFR) (190°C/2.16kg)	ISO 1133	4.0	g/10 min
Mechanical			
Dart drop impact (50µm, Blown Film)	ASTM D 1709	100	g
Tensile Modulus	ISO 527-1, -2	260	MPa
Tensile Stress at Yield	ISO 527-1, -2	11.0	MPa
Tensile Strength	ISO 527-1, -3		
Note: MD		19.0	MPa
Note: TD		16.0	MPa
Tensile Strain at Break	ISO 527-1, -3		
Note: MD		300	%
Note: TD		600	%
Thermal			
Vicat softening temperature (A50 (50°C/h 10N))	ISO 306	92.0	°C
Melting Temperature	ISO 3146	111	°C
Optical			
Haze (50µm)	ASTM D 1003	<9	%
Gloss	ASTM D 2457		
(20°, 50µm)		>50	

(60°, 50µm)	>100

Film	
Melt Temperature	150 to 190 °C

Additional Properties

Film properties tested using 50 µm thickness blown film extruded at a melt temperature of 170°C and a blow-up ratio of 1:2.5.
Natural Silica, ISO 3451-1: 0.18%
Erucamide, DIN 51451: 0.06%
Failure Energy, DIN 53373, 50 µm: 3.5 J/mm
Coefficient of Friction, ISO 8295: <20%
Recommended Film Thickness: 15 to 40 µm

Notes

Typical properties; not to be construed as specifications.

Further Information

Lupolen 2427 K

Conveying:
Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that are contained in polymer resins. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained that no leak develops and adequate grounding exists at all times.

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. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the resin.

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. In burning the resin contributes high heat and may generate a dense black smoke. Starting fires can be extinguished by water; developed fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet.

Storage:
The resin is packed in 25 kg bags or in bulk containers protecting it from contamination. If it is stored under adverse conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavourable storage conditions may also intensify the resin’s slight characteristic odour.

The resin is subjected to degradation by ultra-violet radiations or by high storage temperatures. Therefore the resin must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. The resin can be stored over a period of more than 3 month without significant changes in the specified properties, appropriate storage conditions provided. Higher storage temperatures reduce the storage time.

The information submitted is based on our current knowledge and experience. 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. The data do not relieve the customer from his obligation to control the resin upon arrival and to complain about faults. 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.

LyondellBasell markets this product through the following entities:

- Equistar Chemicals, LP
- Basell Sales & Marketing Company B.V.
- Basell Asia Pacific Limited
- Basell International Trading FZE
- LyondellBasell Australia Pty Ltd

For the contact details of the LyondellBasell company selling this product in your country, please visit http://www.lyb.com/.

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally.

SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT.

This product(s) may not be used in:

(i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I Medical Devices, without prior notification to Seller for each specific product and application; or

(ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: (1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor.

(iii) Additionally, the product(s) may not be used in: (1) U.S. FDA Class III, Health Canada Class IV, and/or European Class III Medical Devices; (2) applications involving permanent implantation into the body; (3) life-sustaining medical applications; and (4) lead, asbestos or MTBE related applications.

All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

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