SABIC® LLDPE 218B

Linear low density polyethylene for Cast film

Description

SABIC® LLDPE 218B is a butene linear low density polyethylene resin designed for easy processing and specially formulated for optimum thermal stability at high temperatures used in cast film extrusion. Cast films produced from SABIC® LLDPE 218B exhibit excellent optical properties, improved toughness, puncture resistance and tear strength.

Application

SABIC® LLDPE 218B resin is recommended for hand and pallet stretch wrap.

Film properties

Properties are determined on 20 µm cast stretch film produced on a 2 m commercial cast stretch line: melt temperature 270 °C, chill roll temperature 20 °C and line speed of 450 m/min.

Processing conditions

SABIC® LLPDE 218B is extrudable with conventional cast film extrusion equipment. Minor machine modifications may be required for optimum use. Cast film melt temperatures 250 - 300 °C.

The product mentioned herein is in particular not tested and therefore not validated for use in pharmaceutical/ medical applications.

Typical data. Revision 20111101

Properties	Units SI	Values	Test methods
Polymer properties			
Melt flow rate (MFR)			ISO 1133
at 190 °C and 2.16 kg	g/10 min	**2.0**	
Density	kg/m³	**918**	ISO 1183 (A)
Formulation			
Anti oxidant		**+**	SABIC method
Optical properties			
Gloss (45°)	‰	**92**	ASTM D 2457
Haze	%	**1.2**	ASTM D 1003A
Film properties			
Dart impact	kJ/m	**2.8**	ISO 7765-2
Tear strength TD	kN/m	**185**	ISO 6383-2
Protrusion Puncture resistance	J	**2.2**	ASTM D 5748-95
Elastic recovery & Stress retention			ASTM D 5459-95
Elastic recovery	%	**52.6**	
Stress retention	%	**79.9**	
Peel cling			ASTM D 5458-95
0% pre-stretch	N/mm	**0.06**	
200% pre-stretch	N/mm	**0.05**	
Thermal properties			
Vicat softening temperature			ISO 306
at 10 N (VST/A)	°C	**96**	
DSC test			SABIC method
melting point	°C	**122**	

internet www.SABIC-europe.com
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HighLight properties			
Ultimate pre-stretch level	%	**310**	-
Retention force at 60 sec	kg	**0.97**	-

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General information. SABIC Europe's assortment contains both butene and hexene grades for cast and blown film.
SABIC® LLDPE, produced by gasphase technology, is characterized by a high purity, an excellent extrusion performance and draw down capability. SABIC® LLDPE can be used in versatile mono an co-extrusion applications, pure or in blends with LDPE. SABIC® LLDPE is stabilized with an anti oxidant package suitable for all film applications.

Health, Safety and Food Contact regulations. Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, available on the Internet (www.SABIC-europe.com). Additional specific information can be requested via your local Sales Office.

Quality. SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO 9001-2000. It is SABIC Europe's policy to supply materials that meet customers specifications and needs and to keep up its reputation as a pre-eminent, reliable supplier of e.g. polyethylenes.

Storage and handling. Polyethylenes resins (in pelletised or powder form) should be stored in such a way that it prevents exposure to direct sunlight and/or heat, as this may lead to quality deterioration. The storage location should also be dry, dust free and the ambient temperature should not exceed 50 °C. Not complying with these precautionary measures can lead to a degradation of the product which can result in colour changes, bad smell and inadequate product performance. It is also advisable to process polyethylene resins (in pelletised or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

Environment and recycling. The environmental aspects of any packaging material do not only imply waste issues but have to be considered in relation with the use of natural resources, the preservations of foodstuffs, etc. SABIC Europe considers polyethylene to be an environmentally efficient packaging material. Its low specific energy consumption and insignificant emissions to air and water designate polyethylene as the ecological alternative in comparison with the traditional packaging materials. Recycling of packaging materials is supported by SABIC Europe whenever ecological and social benefits are achieved and where a social infrastructure for selective collecting and sorting of packaging is fostered. Whenever 'thermal' recycling of packaging (i.e. incineration with energy recovery) is carried out, polyethylene -with its fairly simple molecular structure and low amount of additives- is considered to be a trouble-free fuel.

Disclaimer. The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

SABIC Europe as referred to herein means any legal entity belonging to the SABIC Europe group of companies.

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