

SABIC® LLDPE 6218BE

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LLDPE 6218BE is a hexene linear low density polyethylene resin for cast film applications. The product has been specially formulated for optimum thermal stability at high temperatures used in cast film extrusion. Cast films produced from SABIC® LLDPE 6218BE exhibit good optical properties, improved toughness, puncture resistance and tear strength.

Application

SABIC® LLDPE 6218BE resin is typically used for pallet stretch wrap (pre-stretch), high performance draw down films and other mono layer and coextruded film applications where high strength is required. The grade is also suggested for blending with ethylene/butene copolymer LLDPE and LDPE for improving strength.

Film properties

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

This product is not intended for and must not be used in any pharmaceutical/medical applications.

TYPICAL PROPERTY VALUES

Revision 20250930

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	2.2	dg/min	ISO 1133
Density	920	kg/m³	ASTM D1505
OPTICAL PROPERTIES			
Gloss (45°)	90	%	ASTM D2457
Haze	2.2	%	ASTM D1003
FILM PROPERTIES			
Dart impact	2.7	kJ/m	ISO 7765-2
Tear strength TD	272	kN/m	ISO 6383-2
Protrusion Puncture resistance	1.9	J	ASTM D5748-95
Elastic recovery & Stress retention			
Elastic recovery	55.9	%	ASTM D5459-95
Stress retention	77.4	%	ASTM D5459-95
Peel cling			
200% pre-stretch	0.03	N/mm	ASTM D5458-95
0% pre-stretch	0.09	N/mm	ASTM D5458-95
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	103	°C	ISO 306
DSC test			
melting point	125	°C	SABIC method
HIGHLIGHT PROPERTIES			
Ultimate pre-stretch level	260	%	-
Retention force at 60 sec	0.99	kg	-

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 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 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.

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.

PROCESSING CONDITIONS

SABIC® LLDPE 6218BE is extrudable with conventional cast film extrusion equipment. Temperatures 250- 300 °C.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.