SABIC® LLDPE 6218BE

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LLDPE 6218BE is ahexene linear low density polyethylene resinfor 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. The suffix E denotes European origin.ApplicationSABIC® LLDPE 6218BE resin is typcially usedfor 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 propertiesProperties 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.Processing conditionsSABIC® LLDPE 6218BE is extrudable with conventional cast film extrusion equipment. Temperatures250-300 °C.This product is not intended for and must not be used in any pharmaceutical/medical applications.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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 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.