SABIC® LLDPE 118NE

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LLDPE 118NE is a butene linear low density polyethylene resin typically used for general purposeapplications. Films produced from this resin are tough with good puncture resistance, high tensile strength, good hottack properties and low gel levels.

Application
Typical applications for SABIC® LLDPE 118NE are shipping sacks, ice bags, frozen food bags, liners, carrier bags, garbage bags, agriculture films, lamination and coextruded films, shrink film (for blending with LDPE), industrial consumer packaging and high clarity film if blended with (10-20%) LDPE.

Film properties
Film of 50 µm and BUR=2 has been produced on Kiefel IBC with 140 kg/h. Die size 200 mm, die gap 2,7 mm.

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

TYPICAL PROPERTY VALUES

Revision 20250110

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	1.0	dg/min	ISO 1133
Density	918	kg/m³	ASTM D1505
OPTICAL PROPERTIES			
Gloss (45°)	53	‰	ASTM D2457
Haze	13	%	ASTM D1003
FILM PROPERTIES			
Impact strength	23	kJ/m	ASTM D4272
Tear strength TD	140	kN/m	ISO 6383-2
Tear strength MD	40	kN/m	ISO 6383-2
Puncture resistance	630	J/m	SABIC method
Tensile test film			
Yield stress MD	11	MPa	ISO 527-3
Modulus of elasticity MD	190	MPa	ISO 527-3
Stress at break TD	33	MPa	ISO 527-3
Strain at break TD	850	%	ISO 527-3
Modulus of elasticity TD	210	MPa	ISO 527-3
Stress at break MD	44	MPa	ISO 527-3
Strain at break MD	650	%	ISO 527-3
Yield stress TD	12	MPa	ISO 527-3
Coefficient of friction	1.2	-	ASTM D1894
Blocking	10	g	SABIC method
Re-blocking	65	g	SABIC method
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	103	°C	ISO 306
DSC test			
melting point	121	°C	SABIC method

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 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.

DISCLAIMER

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