

SABIC® LLDPE 6821NE

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LLDPE 6821NE is a hexene linear low density polyethylene. Films made from this resin exhibit good tensile strength, stiffness, dart drop impact strength, tear strength and hot tack properties. The suffix E denotes European origin. Typical applications for SABIC® LLDPE 6821NE are heavy duty bags, lamination films, agriculture films, stretch wrap films, frozen food packaging and other applications requiring high impact strength and tear resistance. 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 20170425

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
at 190 °C and 2.16 kg	0.8	dg/min	ISO 1133
Density	921	kg/m ³	ISO 1183 (A)
OPTICAL PROPERTIES			
Gloss (45°)	55	%	ASTM D2457
Haze	15	%	ASTM D1003A
FILM PROPERTIES			
Impact strength	30	kJ/m	ASTM D4272
Tear strength TD	330	kN/m	ISO 6383-2
Tear strength MD	80	kN/m	ISO 6383-2
Puncture resistance	700	J/m	SABIC method
Tensile test film			
Stress at break MD	45	MPa	ISO 527-3
Modulus of elasticity TD	250	MPa	ISO 527-3
Stress at break TD	38	MPa	ISO 527-3
Yield stress TD	13.5	MPa	ISO 527-3
Modulus of elasticity MD	220	MPa	ISO 527-3
Yield stress MD	12	MPa	ISO 527-3
Tensile test film			
Strain at break MD	600	%	ISO 527-3
Strain at break TD	750	%	ISO 527-3
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	111	°C	ISO 306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
DSC test			
melting point	125	°C	SABIC method

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.

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.

QUALITY

SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO 9001.

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 as referred to herein means any legal entity belonging to the group of companies headed by Saudi Arabia Basic Industries Corporation.