

SABIC® LDPE 2102N3W

LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LDPE 2102N3W is a general purpose grade with a high level of anti block and slip agent. This grade offers good optical properties.

Application

SABIC® LDPE 2102N3W is typically used for packaging films for food and industrial goods and for lamination films. SABIC® LDPE 2102N3W can typically be used for food applications due to very low migration levels.

Film properties

Film properties have been measured at film of 25 µm with a BUR of 3.
The film has been produced on Kiefel IBC blown film line with 200 kg/h. Die size 200 mm, die gap 0.8 mm.

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

TYPICAL PROPERTY VALUES

Revision 20260202

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Density	921	kg/m³	ISO 1183
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	2.5	dg/min	ISO 1133
OPTICAL PROPERTIES			
Haze	12	%	ASTM D1003
Clarity	30	mV	SABIC method
FILM PROPERTIES			
Impact strength	20	kJ/m	ASTM D4272
Tear strength TD	20	kN/m	ISO 6383-2
Tear strength MD	50	kN/m	ISO 6383-2
Tensile test film			
Yield stress TD	11	MPa	ISO 527-3
Stress at break MD	30	MPa	ISO 527-3
Modulus of elasticity TD	190	MPa	ISO 527-3
Yield stress MD	13	MPa	ISO 527-3
Stress at break TD	18	MPa	ISO 527-3
Tensile test film			
Strain at break MD	>100	%	ISO 527-3
Strain at break TD	>500	%	ISO 527-3
Coefficient of friction	0.2	-	ASTM D1894
Blocking	<5	g	SABIC method
Re-blocking	10	g	SABIC method
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST /A)	90	°C	ISO 306



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.

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