SABIC® LDPE 2100N0W

LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LDPE 2100N0W is a grade with very good toughness and biaxial shrink properties. The material contains no additives, has a very low energy consumption during processing and has good draw down ability.

Application
SABIC® LDPE 2100N0W is a heavy duty film grade typically used for applications like shrink hoods, industrial sacks, carrier bags and liners.
SABIC® LDPE 2100N0W can typically be used for food applications due to very low migration levels.

Film properties
Film properties have been measured at 50 µm films with a BUR of 3.
Films have been produced on Kiefel IBC film blown line at 200 kg/h. Die size 200 mm, die gap of 0.8 mm.

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

TYPICAL PROPERTY VALUES

Revision 20211203

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	0.33	dg/min	ISO 1133
OPTICAL PROPERTIES			
Haze	12	%	ASTM D1003
Clarity	50	mV	SABIC method
FILM PROPERTIES			
Impact strength	30	kJ/m	ASTM D4272
Tear strength TD	30	kN/m	ISO 6383-2
Tensile test film			
Stress at break TD	23	MPa	ISO 527-3
Modulus of elasticity TD	190	MPa	ISO 527-3
Yield stress TD	11	MPa	ISO 527-3
Stress at break MD	28	MPa	ISO 527-3
Tensile test film			
Strain at break MD	>200	%	ISO 527-3
Strain at break TD	>500	%	ISO 527-3
Coefficient of friction	1.0	-	ASTM D1894
Blocking	20	g	SABIC method
Re-blocking	10	g	SABIC method
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	93	°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.

DISCLAIMER