

SABIC® LDPE 2201H1

LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LDPE 2201H1 is a grade with a low level of anti block and a medium level of slip agent. The grade has a very good draw down ability. Films based on 2201H1 combine toughness with high tear strength, good optical properties and low CoF.

Application

SABIC® LDPE 2201H1 is typically developed for lamination films, high quality carrier bags and high quality packaging films.

Film properties

Film properties have been measured at film of 50 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 20180807

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	0.85	dg/min	ISO 1133
Density	922	kg/m ³	ASTM D1505
OPTICAL PROPERTIES			
Gloss (45°)	65	%	ASTM D2457
Haze	6	%	ASTM D1003
FILM PROPERTIES			
Impact strength	25	kJ/m	ASTM D4272
Tear strength TD	45	kN/m	ISO 6383-2
Tear strength MD	45	kN/m	ISO 6383-2
Tensile test film			
Stress at break MD	25	MPa	ISO 527-3
Stress at break TD	20	MPa	ISO 527-3
Yield stress MD	11	MPa	ISO 527-3
Yield stress TD	11	MPa	ISO 527-3
Modulus of elasticity TD	170	MPa	ISO 527-3
Tensile test film			
Strain at break TD	>500	%	ISO 527-3
Strain at break MD	>200	%	ISO 527-3
Coefficient of friction	0.15	-	ASTM D1894
Blocking	50	g	SABIC method
Re-blocking	<5	g	SABIC method

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.

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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.