

# 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
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190 °C and 2.16 kg	0.85	dg/min	ISO 1133
<b>Density</b>	922	kg/m <sup>3</sup>	ASTM D1505
<b>OPTICAL PROPERTIES</b>			
<b>Gloss (45°)</b>	65	%	ASTM D2457
<b>Haze</b>	6	%	ASTM D1003
<b>FILM PROPERTIES</b>			
<b>Impact strength</b>	25	kJ/m	ASTM D4272
<b>Tear strength TD</b>	45	kN/m	ISO 6383-2
<b>Tear strength MD</b>	45	kN/m	ISO 6383-2
<b>Tensile test film</b>			
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
<b>Tensile test film</b>			
Strain at break TD	>500	%	ISO 527-3
Strain at break MD	>200	%	ISO 527-3
<b>Coefficient of friction</b>	0.15	-	ASTM D1894
<b>Blocking</b>	50	g	SABIC method
<b>Re-blocking</b>	<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.

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