

# SABIC® LDPE 1808AN00

## Low density polyethylene for Extrusion coating

### Description

SABIC® LDPE 1808AN00 is an autoclave grade without additives. The material can be processed at high speeds, thanks to its excellent draw down properties and superior web stability. The grade has a low gel level, offers good adhesion to various types of substrates and very good organoleptic properties..

### Application

SABIC® LDPE 1808AN00 is suitable for a very wide range of applications. In particular, this grade is used in the production of cartons in which liquid foods are packed and where good organoleptic properties are required.

### Properties

Mechanical properties determined on compression moulded specimen (1.6 mm thick) at 200 mm/min.

ESCR determined on compression moulded specimen (2 mm thick) at 2 MPa and 60 °C.

Film properties have been measured at film of 25 µm.

Flexural crack resistance in cycles per 10 holes. Water vapour permeability at 38 °C and 100 % RH per 24 h..

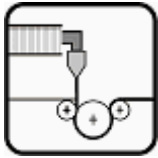
Oxygen permeability at 23 °C and 0 % RH per 24 h.

### Typical data.

Revision 20051216

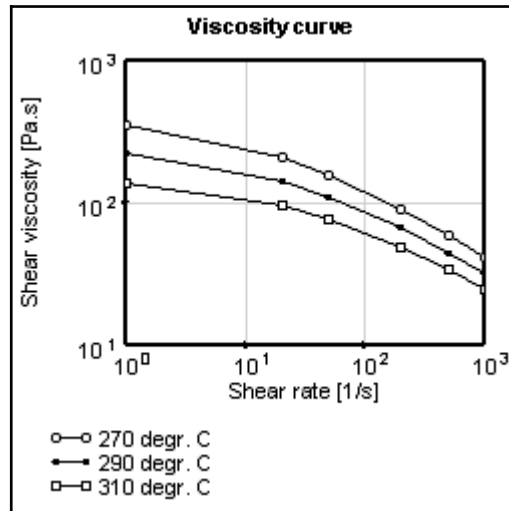
Properties	Units SI	Values	Test methods
<b>Polymer properties</b>			
<b>Melt flow rate (MFR)</b> at 190 °C and 2.16 kg	g/10 min	<b>7.5</b>	ISO 1133
<b>Density</b>	kg/m <sup>3</sup>	<b>920</b>	ISO 1183
<b>Mechanical properties</b>			
<b>Tensile test</b>			ISO 527-2
stress at yield	MPa	<b>9</b>	
stress at break	MPa	<b>14</b>	
strain at break	%	<b>510</b>	
<b>ESCR</b>	h	<b>2</b>	SABIC method
<b>Film properties</b>			
<b>Tear strength TD</b>	kN/m	<b>8</b>	ISO 6383-2
<b>Tear strength MD</b>	kN/m	<b>10</b>	ISO 6383-2
<b>Tensile test film</b>			ISO 527-3
Yield stress TD	MPa	<b>8</b>	
Yield stress MD	MPa	<b>9</b>	
Stress at break TD	MPa	<b>10</b>	
Stress at break MD	MPa	<b>13</b>	
Strain at break TD	%	<b>300</b>	
Strain at break MD	%	<b>300</b>	
<b>Flexural crack resistance</b>	-	<b>4000</b>	SABIC method
<b>Permeability</b>			SABIC method
water vapour (H <sub>2</sub> O)	g/m <sup>2</sup>	<b>22</b>	
oxygen (O <sub>2</sub> )	cm <sup>3</sup> /cm <sup>2</sup> bar	<b>0.9</b>	
<b>Thermal properties</b>			
<b>Vicat softening temperature</b>	°C	<b>88</b>	ISO 306
<b>DSC test</b>			DIN 53765
melting point	°C	<b>106</b>	
enthalpy change	J/g	<b>109</b>	

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Low density polyethylene for Extrusion coating



**General information.** SABIC Europe has committed itself to the extrusion coating market with high quality LDPE materials and combines this assortment with a dedicated technical customer support.

The low density polyethylenes (SABIC® LDPE) for extrusion coating are produced by the high pressure autoclave process which ensures grades with high purity. Compared with grades from high pressure tubular processes the SABIC® LDPE grades show a typical broad molecular weight distribution with long chain branching (LCB).

As a result of this broad molecular weight distribution in combination with the high degree of LCB SABIC® LDPE grades offer excellent processing characteristics such as stable web with a well balanced neck-in and draw down behaviour.

**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](http://www.SABIC-europe.com)). Additional specific information can be requested via your local Sales Office.

**Quality.** SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO 9001-2000. It is SABIC Europe's policy to supply materials that meet customers specifications and needs and to keep up its reputation as a pre-eminent, reliable supplier of e.g. polyethylenes.

**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 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.