

SABIC® LDPE 2404EC

LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LDPE 2404EC is a tubular LDPE grade for extrusion coating. Its special molecular structure gives a good combination of processing and end-performance properties. SABIC® LDPE 2404EC can be used on low and (very) high line speed extrusion coating and lamination processes. Due to its excellent draw down performance and good adhesion, very thin coating layers can be applied on the substrate.

Application

SABIC® LDPE2404EC is typically used in extrusion coating and lamination applications, such as liquid packaging, imaging, food packaging, release liners and building & construction. It can be used for coating on paper board, aluminium foil and other substrates. Due its relative high density (compared to SABIC LDPE 2005EC) it has a higher temperature resistance.

Properties

Mechanical properties determined on compression moulded specimen (2 mm thick) at test speed of 50 mm/min. Film properties have been measured at film of 25 µm, produced on lab scale equipment. Water vapour permeability at 38 °C and 90 % RH per 24 h. Oxygen permeability at 23 °C and 0 % RH per 24 h.

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

TYPICAL PROPERTY VALUES

Revision 20191220

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	3.5	dg/min	ISO 1133
Density	924	kg/m ³	ASTM D1505
PROCESSING PROPERTIES			
Neck In ⁽¹⁾	130	mm	SABIC method
Minimal coating weight (DD) ⁽²⁾	1.7	g/m ²	SABIC method
FILM PROPERTIES			
Permeability			
water vapour (H ₂ O)	20	g/m ² day	ISO 15106-3
oxygen (O ₂)	0.8	ml/m ² day	ISO 15105-2
THERMAL PROPERTIES			
Vicat Softening Temperature			
Vicat Softening Temperature	91	°C	ISO 306
DSC test			
enthalpy change	122	J/g	DIN 53765
melting point	110	°C	DIN 53765

(1) Measured on pilot line at 360 m/min, 300 °C, 10 g/m², airgap 300 mm

(2) Measured on pilot line at 320 m/min, 300 °C, airgap 300 mm

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

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