SABIC® HDPE F00952

High density polyethylene for Blown film

Description

SABIC® HDPE F00952 resin is a high molecular weight high density polyethylene copolymer which has been designed specifically for blown film extrusion. Its high molecular weight, broad molecular distribution and high density combine succesfully to give excellent extrudability with high film strenght and rigidity. The material contains anti oxidant .

Application

SABIC® HDPE F00952 resin is recommended for blown film extrusion. This product is suggested for the manufacture of high strength grocery sacks, shopping bags and high quality thin films for multi wall sack liners and replacement for thin paper products. Films of this poduct are readily treated and printed to give high quality graphics.

Processing conditions

SABIC® HDPE F00952E can be extruded on conventional HMW-HDPE equipment at melt temperatures between 200 and 235 °C.

Film properties

Film properties have been measured at 15 µm blown film with a BUR = 4.

Typical data. Revision 20080219

Properties	Units SI	Values	Test methods
Polymer properties			
Melt flow rate (MFR)			ISO 1133
at 190 °C and 2.16 kg	g/10 min	**0.05**	
at 190 °C and 21.6 kg	g/10 min	**9**	
Density	kg/m³	**952**	ISO 1183
Formulation			
Anti oxidant	mg/kg	**+**	SABIC method
Film properties			
Dart Impact F50	g	**180**	ASTM D 1709
Tear strength TD Elmendorf	g	**60**	ASTM D 1922
Tear strength MD Elmendorf	g	**12**	ASTM D 1922
Tensile test film			ASTM D 882
Yield stress TD	MPa	**31**	
Yield stress MD	MPa	**33**	
Stress at break TD	MPa	**56**	
Stress at break MD	MPa	**60**	
Strain at break TD	%	**550**	
Strain at break MD	%	**400**	
Modulus of elasticity TD	MPa	**1500**	
Modulus of elasticity MD	MPa	**1250**	
Thermal properties			
Vicat softening temperature	°C	**125**	ASTM D 1525

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General information. SABIC® HDPE copolymer film grades offer, as a result of their relative wide molecular weight distribution a well balanced combination of processing properties, draw down and film properties such as: toughness. impact resistance, stiffness and sealabillity.

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). 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.

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