SABIC® HDPE FI0750

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE FI0750 is a high molecular High Density Polyethylene copolymer grade typically used for blown film applications. SABIC® HDPE FI0750 features are balance between toughness and stiffness, good impact properties with low gel level.

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

TYPICAL APPLICATIONS

SABIC® HDPE FI0750 is typically used for blown film extrusion. Typical applications are heavy duty bags, grocery sacks, shopping bags, refuse bags, liners for multi-wall sacks and liners for frozen food meat. The grade can be blended with LLDPE and LDPE and can be used in co-extrusion process.

TYPICAL PROPERTY VALUES

Revision 20220721

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 21.6 kg	7.5	g/10 min	ISO 1133
at 190 °C and 5 kg	0.22	g/10 min	ISO 1133
Density	950	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
Hardness Shore D	62	-	ISO 868
FILM PROPERTIES			
Tensile Properties (1)			
stress at break, MD	50	MPa	ISO 527-3
stress at break, TD	45	MPa	ISO 527-3
strain at break, MD	400	%	ISO 527-3
strain at break, TD	450	%	ISO 527-3
Dart Impact Strength			
F50	240	g	ASTM D1709
Elmendorf Tear Strength			
MD	250	mN	ISO 6383-2
TD	450	mN	ISO 6383-2
THERMAL PROPERTIES			
Brittleness Temperature	<-80	°C	ASTM D746
Vicat Softening Temperature			
at 50 N (VST/B)	75	°C	ISO 306/B

(1) Properties have been measured based on 20µm blown film with a BUR of 4 using 100% FI0750.

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.

PROCESSING CONDITIONS

Processing conditions.

Melt Temperature: 200 - 225°C.

Frost Line Height: 6 - 8 times die cross-cut.

BUR: 3 - 5

DISCLAIMER