SABIC® LLDPE 318B

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

SABIC® LLDPE318B is a standard C4-LLDPE grade with a relatively low melt flow rate. SABIC® LLDPE318B is a general grade, typically used for low filled or additive masterbatches in film and blow moulding applications(e.g. slip agents, anti fog agents, anti static agents, thermal stabilizers). This product is not intended for and must not be used in any pharmaceutical/medical applications.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
at 190 °C and 2.16 kg	2.8	dg/min	ASTM D1238
Density	918	kg/m³	ASTM D1505
DSC			
melting point	121	°C	SABIC method
MECHANICAL PROPERTIES			
Tensile test			
strain at yield	16	%	ASTM D638
stress at yield	12	MPa	ASTM D638
stress at break	13	MPa	ASTM D638
strain at break	710	%	ASTM D638
Flexural test			
Secant modulus at 1% elongation	251	MPa	ASTM D790
Hardness Shore D	48	-	ISO 868
OPTICAL PROPERTIES			
Gloss (45°)	91	‰	ASTM D2457
Haze	2.1	%	ASTM D1003
FILM PROPERTIES			
Dart impact	2.6	kJ/m	ISO 7765-2
Tear strength TD	140	kN/m	ISO 6383-2
Protrusion Puncture resistance	2.0	J	ASTM D5748-95
Elastic recovery & Stress retention			
Elastic recovery	51.9	%	ASTM D5459-95
Stress retention	78.1	%	ASTM D5459-95
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	102	°C	ISO 306
DSC test			
enthalpy change	114	J/g	SABIC method
melting point	121	°C	SABIC method
ELECTRICAL PROPERTIES			
Volume resistivity	8.5E15	Ohm.cm	ASTM D257
Dissipation factor at 60 Hz	5.0E-4	-	ASTM D150

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dielectric constant at 60 Hz	2.2	-	ASTM D150
Dielectric strength at 2000 V/sec	>30	V/µm	ASTM D149

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.