

SABIC LLDPE 118W

Linear low density polyethylene for Blown film

Description

SABIC® LLDPE 118W is a butene-linear low density polyethylene resin for general purpose applications. Films produced from this resin are tough with excellent puncture resistance, high tensile strength and good hottack properties. The resin contains anti block and slip erucamide.

Application

Typical applications for SABIC® LLDPE 118W are shipping sacks, ice bags, frozen food bags, liners, carrier bags, garbage bags, films for meatwrap, consumer packaging and high clarity film if blended with (10-20%) LDPE.

Film properties

Film of 50 µm and BUR=2 has been produced on Kiefel IBC with 140 kg/h. Die size 200 mm, die gap 2,7 mm.

Typical data

Properties	Units SI	Values	Test methods
Polymer properties			
Melt flow rate (MFR) at 190 °C and 2.16 kg	g/10 min	1.0	ISO 1133
Density	kg/m ³	918	ISO 1183 (A)
Formulation			
Slip	mg/kg	1500	SABIC method
Anti block method	mg/kg	3500	SABIC method
Anti oxidant	mg/kg	+	SABIC method
Optical properties			
Gloss (45°)	%	42	ASTM D 2457
Haze	%	20	ASTM D 1003A
Clarity	mV	20	SABIC method
Film properties			
Impact strength	kJ/m	22	ASTM D 4272
Tear strength TD	kN/m	120	ISO 6383-2
Tear strength MD	kN/m	40	ISO 6383-2
Puncture resistance	J/m	380	SABIC method
Tensile test film			ISO 527-3
Yield stress TD	MPa	11	
Yield stress MD	MPa	11	
Stress at break TD	MPa	30	
Stress at break MD	MPa	37	
Strain at break TD	%	800	
Strain at break MD	%	600	
Modulus of elasticity TD	MPa	180	
Modulus of elasticity MD	MPa	160	
Coefficient of friction	-	0.1	ISO 8295
Blocking	g	15	SABIC method
Re-blocking	g	10	SABIC method
Thermal properties			
Vicat softening temperature at 10 N (VST/A)	°C	101	ISO 306/B
DSC test melting point	°C	121	SABIC method

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 sealability.