



Product Data Sheet

Rev. 1 - 26/07/2002

Linear Low Density Polyethylene

LL-118

Description

LL-118 is a LLDPE Butene copolymer produced by Braskem. It is a general purpose product that shows a good processing performance balanced with good optical and mechanical properties as well as sealability. Very low gel amount.

Additive

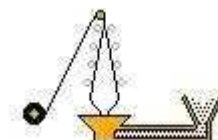
Slip Absent
Antiblock Absent

Applications

Heavy duty bags
Stretch film
"Liners"
General purpose
HDPE and LDPE blends

Process

Blown Film Extrusion



Control Properties

	ASTM Method	Unit	Value
Melt Index (190°C/2.160kg)	D-1238	g/10 min	1.0
Density	D-1505	g/cm ³	0.916

Properties

Blown Film Properties ^a

	ASTM Method	Units	Values
Haze	D-1003	%	20.3
Gloss - Angle 45°	D-2457	%	6.7
Ultimate Strength (MD/TD)	D-882	MPa	53/40
Elongation at Break (MD/TD)	D-882	%	1286/1584
Dart Drop Impact	D-1709	gF/50%f	127
Elmendorf tear strength (MD/TD)	D-1922	kgF/cm	80/156
Coefficient of Friction (COF)- Kinetic	D-1894	µm	1.0
Minimum Thickness (p/s)	-	µm	15

Plaque Properties ^b

	ASTM Method	Units	Values
Tensile Strength at Break	D-638	MPa	21
Tensile Yield Strength	D-638	MPa	12
Elongation at Break	D-638	%	880
Flexual Modulus	D-790	MPa	224
Secant Modulus at 1%	D-638	MPa	228

Hardness	D-2240	Shore A	96
Hardness	D-2240	Shore D	50
Vicat softening temperature	D-1525	°C	98
Heat Distortion Temperature at 455 kPa	D-648	°C	49
Heat Distortion Temperature at 1820 kPa	D-648	°C	42
Environmental Stress Cracking Resistance^c	D-1693	h/50%f	>1000

(a) 25 µm thickness film, processed in a 40mm screw diameter extruder with blow up ratio of 2.2:1. (MD: Machine Direction; TD: Transversal Direction).

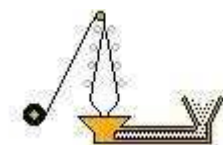
(b) Compression molded plaques, ASTM D-1928 Method, procedure C.

(c) Compression molded 3 mm notched plaques, 10% Igepal, 50°C.

Recommended Processing Conditions

Blown Film

- Temperature Profile:...from 180 to 210°C
- Blow up Ratio:.....from 2 to 3:1
- Die Gap:.....from 1.8 to 2.5 mm
- Screen Package.....40/40 - 100% pure
- 40/60/40 - Blend
- Mass Temperature.....190°C (max 210°C)



Final Remarks

1. This resin meets the requirements for olefin polymers as defined in 21 CFR Section 177.1520 issued by FDA - "Food and Drug Administration". The additives content is in accordance to the FDA regulation. The resin can be used in food packaging applications.
2. The information contained here is presented in good faith and intend to indicate the performance of material based on laboratory tests. The values should not to be taken as accurate or as a performance warranty. Only the control property values should be seen as a warranty.
3. Product registered on No. Reg. CAS: 25087-34-7.
4. Contact our Technical Service Area to obtain detailed product specifications, to consult about other appropriate applications or to clarify any doubt.