Linear Low Density Polyethylene LL4405S

Description:
LL4405S is a Linear Low Density Polyethylene developed for cast film extrusion. Films obtained with this product show a good processing performance balanced with good mechanical properties and processability. Very low gel amount.

Additive:
Antiblocking – High
Slip - High

Applications:
Liners; LDPE and HDPE blends; general use packages; technical films for automatic packaging.

Process:
Blown Film Extrusion

Control Properties:

	ASTM Method	Unit	Value
Melt Flow Rate (190/2.160)	D 1238	g/10 min	2.0
Density	D 792	g/cm3	0.922

Properties:
Blow Film Properties[a]

	ASTM Methods	Units	Values
Ultimate Strength (MD/TD)	D 882	MPa	30/30
Elongation at Break (MD/TD)	D 882	%	1100/1300
Flexural Modulus – 1% Secant	D 882	MPa	200/220
Dart Drop Impact	D 1709	g/F50	75
Elmendorf Tear Strength (MD/TD)	D 1922	gF	60/800
Haze	D 1003	%	25
Gloss – Angle 45°	D 2457	-	35
Gloss – Angle 60°	D 2457	-	65
COF internal 72h	D 1894	-	0.12
Blocking Load	D 3354	gf/100cm²	6

(a) 40 µm thickness film, processed in a 40 mm screw diameter extruder with blow up ratio of 2,2:1 (MD = Machine Direction; TD = Transversal Direction)

Recommended Processing Conditions:
Cast Film Extrusion
-Temperature Profile:..... from 150 to 250°C
-Screen Package:..... 40/40 - 100% pure
40/60/40 - Blend
-Mass Temperature:..... 230ºC (max 260ºC)

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 in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA.
2. These information reflect typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
3. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Application Engineering.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 25087-34-7.
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for storage or contact with solution that will have internal contact with human body.
8. Braskem polyolefin products do not have additives with metals or other substances on purpose of oxi-degradation. These additives and the decomposition and disintegration of polyolefins caused by oxi-degradation phenomenon can cause environmental pollution, decrease the package performance and increase migration of package constituent to food, compromising resin approval regarding the requirements of Anvisa Resolution 105/99. The use of these additives with Braskem polyolefin products implies immediate loss of performance guarantee described in this data sheet.
9. The content of this Data Sheet replaces previous revisions published for this product.
10. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.