

**Linear Low Density Polyethylene LL118/21**

**Description:**

LL118/21 is a LLDPE 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:**

Antiblocking Medium  
Slip Médium

**Applications:**

Automatic Packaging (FFS); liners; general purpose; HDPE and LDPE blends.

**Process:**

Blown Film Extrusion

**Control Properties:**

|                           | ASTM Method | Unit     | Value |
|---------------------------|-------------|----------|-------|
| Melt Flow Rate (190/2.16) | D 1238      | g/10 min | 1.0   |
| Density                   | D 792       | g/cm3    | 0.919 |

**Properties:**

Blown Film Properties<sup>a</sup>

|                                      | ASTM Method | Unit  | Value     |
|--------------------------------------|-------------|-------|-----------|
| Tensile Strength at Break (MD/TD)    | D 882       | MPa   | 40/30     |
| Elongation at Break (MD/TD)          | D 882       | %     | 1070/1340 |
| Flexural Modulus – 1% Secant (MD/TD) | D 882       | MPa   | 210/230   |
| Dart Drop Impact                     | D 1709      | g/F50 | 130       |
| Elmendorf Tear Strength (MD/TD)      | D 1922      | gF    | 180/400   |

(a) 38 µm thickness film, processed in a 40mm screw diameter extruder with blow up ratio of 2.2:1. (MD: Machine Direction; TD: Transversal Direction).

**Recommended Processing Conditions:**

**Blown Film Extrusion**

- 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 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. The content of this Data Sheet replaces previous revisions published for this product.
9. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.