

## Linear Low Density Polyethylene FM31D

### Description:

The FM31D resin is a Linear Low Density Polyethylene for blown film extrusion. It has excellent mechanical properties, especially hot tack. It contains processing aid, antiblock, slip and antioxidant additive.

### Application:

General purpose pure and blends; laminating and automatic packaging of solids and liquids.

### Process:

Blown Film Extrusion

### Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	1.0
Density	D 792	g/cm <sup>3</sup>	0.919

### Typical Properties:

Blow Film Properties<sup>a</sup>

	ASTM Methods	Units	Values
Tensile Strength at Break (MD/TD)	D 882	MPa	30/20
Elongation at Break (MD/TD)	D 882	%	860/1200
Tensile Modulus – 1% Secant (MD/TD)	D 882	MPa	170/220
Dart Drop Impact	D 1709	g/F50	130
Elmendorf Tear Strength (MD/TD)	D 1922	gF	50/760
Haze	D 1003	%	10
Gloss - Angle 60°	D 2457	%	120

(a) 40 µm Film Gauge, obtained in 40 mm extruder with blow up ratio of 2,2:1 . (MD: Machine direction; TD: Transversal direction).

### Recommended Processing Conditions:

The FM31D resin can be processed with polyethylenes on conventional extruders with a maximum ratio of 30%. The best results of low melt index.

The recommended temperature profile for blends with LDPE is slightly higher than those ones for the conventional LDPE is slightly higher than those ones for the conventional LDPE (10 to 20°C).

Recommended blow up ratio: 1,8 to 3,0:1.

### 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 Technical Assistance.
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.