

## High Density Polyethylene GM9450F

### Description:

HDPE GM9450F is a high-density polyethylene, developed for the high molecular weight film extrusion segment produced with bimodal technology. The film produced from this resin has high tenacity and excellent resistance to impact characteristics. This resin has wide molar mass distribution that makes it easier to process.

### Applications:

Bags in general (such as T-shirt bags, handle bags, star bags, others); geomembranes.

### Additives:

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### Process:

Blown Film Extrusion.

### Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190/5)	D 1238	g/10 min	0.33
Melt Flow Rate (190/21,6)	D 1238	g/10 min	9.3
Density	D 792	g/cm3	0.952

### Typical Properties:

Blown film Properties<sup>a</sup>

	ASTM Methods	Units	Values
Tensile Strength at Break (MD/TD)	D 882	MPa	85/45
Elongation at Break (MD/TD)	D 882	%	590/740
Tensile Strength at Yield (MD/TD)	D 882	MPa	40/30
Elongation at Yield (MD/TD)	D 882	%	15/5
Dart Drop Impact Resistance	D 1709	g/F50	200
Elmendorf Tear Strength (MD/TD)	D 1922	gF	5/50
Secant Modulus 1% (MD/TD)	D 882	MPa	750/870
Sealing Initial Temperature	Braskem Method	°C	125

(a) Film with 12,5 micra produce in a 75mm extruder with 1,3 mm of die gap and a blow-up ratio of 4.5:1. (MD = extrusion direction and TD = transversal direction).

### 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. The information presented in this Data Sheet reflects 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.