

## Low Density Polyethylene TS7003

### Description:

TS7003 is a low density polyethylene (LDPE) with high molecular weight that offers high mechanical strength and toughness even at low temperatures. Additionally, this product is easily processed. The product was developed to meet the requirements for automatic packaging. The additive package provides low coefficient of friction – COF, allowing high productivity on the packaging lines. This product is identified as PE 115 according to ASTM D-4976-04a standard specification.

### Additives:

Antiblocking

Slip agent

### Application:

Films for automatic packaging of liquids such as, milk, yogurt, juices, etc.

Packaging for frozen food: meat, chicken, seafood, fries, etc.

Blow molding flexible packaging.

### Process:

Blown Film Extrusion

### Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	0.27
Density	D 792	g/cm3	0.922

### Typical Properties:

Blow Film Properties<sup>a</sup>

	ASTM Methods	Units	Values
Tensile Strength at Break (MD/TD)	D 882	MPa	20/20
Elongation at Break (MD/TD)	D 882	%	380/910
2% Secant Modulus (MD/TD)	D 882	MPa	140/150
Dart Drop Impact	D 1709	g/F50	230
Elmendorf Tear Strength (MD/TD)	D 1922	gF	300/220
Haze	D 1003	%	20
Gloss - Angle 45°	D 2457	-	41
Gloss - Angle 60°	D 2457	-	54

(MD = Machine Direction; TD = Transversal Direction)

(a) 70 µm thickness film, processed in a 70 mm blow film line with barrier screw. 25:1 L/D and a 1,0 mm die gap at a 2,3: 1 blow up ratio.

### Recommended Processing Conditions:

#### Blow Film Extrusion

-Temperature Profile:.....from 160 to 205°C

-Mass Temperature:..... from 180 to 205°C

-Blow up Ratio:.....from 2,0 to 3,0:1

-Die Gap:.....1,0 mm

The optimum processing conditions will vary according to the type of equipment used and cannot be considered as performance guarantee.

**Final Remarks:**

1. 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.
2. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
3. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
4. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. Cas Registry number: 9002-88-4.
5. The mentioned values in this report can be changed at any moment without Braskem previous communication.
6. 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.
7. The content of this Data Sheet replaces previous revisions published for this product.
8. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.