Braskem

Data Sheet
Review 8 (Apr/15)

Low Density Polyethylene TX7003

Description:

TX7003 is a low-density, high molecular-weight polyethylene that offers high mechanical strength. The product is highly versatile and can be used in several applications due to its easy processability and high compatibility with other types of polyethylene. TX7003 resin shows excellent performance with conventional extruders and low energy consumption during processing, which allows the production of packages with dimensional uniformity and excellent surface finishing. This product is identified as PE 115 according to ASTM D-4976-04a standard specification.

Additives:

No additives

Application:

Heavy duty bags, shrink film and plastic canvas.
Technical films for high-strength industrial packaging,
Blends with HDPE and LLDPE for extrusion and molding processes

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[a]

	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 45º	D 2457	-	39
Gloss - Angle 60º	D 2457	-	49

(MD = Machine Direction; TD = Transversal Direction)
(a) 70 µm thickness film, processed in a 50 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. 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
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 Technical Assistance.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. Cas Registry number: 9002-88-4.
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.