

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/cm ³	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 45°	D 2457	-	39
Gloss - Angle 60°	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

