

## **Braskem TU3001 LDPE Blown Film Extrusion Polyethylene**

Category: Polymer, Film, Thermoplastic, Polyethylene (PE), LDPE, Low Density Polyethylene (LDPE), Film Grade

## **Material Notes:**

TU3001 is a low-density polyethylene (LDPE) with high molecular weight, excellent mechanical properties, and good processability. These qualities ensure the production of films with uniform thickness. TU3001 resin is stabilized with a hindered amine (HALS) and antioxidants which warrant high resistance to aging caused by exposure to solar radiation. Films manufactured with TU3001 are colorless and have high light transmission. The films produced are transparent but not thermal. This product is identified as PE 115 according to ASTM D-4976-04a standard specification. It contains antioxidant and anti-UV additives. Its applications include films for greenhouses and other films for applications that require high mechanical strength and high resistance to aging from solar radiation (UV radiation exposure). Films manufactured with TU3001 have a minimum duration expectancy of 18 months (two winters and one summer) for continuing use in a greenhouse with a maximum solar radiation of 150 kLy (kcal/cm²/year) and at least 130µm. The suitable durability refers to the retention of at least 50% of the original mechanical resistance of a film produced with pure TU3001. The UV stabilizer used in TU3001 presents great chemical resistance for a range of pesticides, although compounds which have sulfur and halogens can reduce the films' shelf life.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Braskem-TU3001-LDPE-Blown-Film-Extrusion-Polyethylene.php

Physical Properties	Metric	English	Comments	
Density	0.923 g/cc	0.0333 lb/in³	ASTM-D792	
Melt Flow	0.14 g/10 min	0.14 g/10 min		
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	ASTM-D1238	

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	500 %	500 %	ASTM-D882
Film Elongation at Break, TD	710 %	710 %	ASTM-D882
Secant Modulus, MD	0.0950 GPa	13.8 ksi	2% Secant Modulus; ASTM-D882
Secant Modulus, TD	0.0900 GPa	13.1 ksi	2% Secant Modulus; ASTM-D882
Elmendorf Tear Strength MD	470 g	470 g	ASTM-D1922
Elmendorf Tear Strength TD	700 g	700 g	ASTM-D1922
Elmendorf Tear Strength, MD	3.13 g/micron	79.5 g/mil	ASTM-D1922
Elmendorf Tear Strength, TD	4.67 g/micron	119 g/mil	ASTM-D1922
Dart Drop	2.73 g/micron	69.3 g/mil	ASTM-D1709 (Method B)
Dart Drop Test	410 g	0.904 lb	ASTM-D1709 (Method B)
Film Tensile Strength at Break, MD	18.0 MPa	2610 psi	ASTM-D882



Mechanical Properties	Metric Pa	English	Comments 23 1 W 2002
Optical Properties	Metric	English	Comments
Haze	16 %	16 %	ASTM-D1003
Gloss	62 %	62 %	Angle 60°; ASTM-D2457
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Processing Properties	Metric	English	Comments
Die Opening	0.100 - 0.150 cm	0.0394 - 0.0591 in	Blow Film Extrusion
Blow-up Ratio (BUR)	2.0 - 3.0	2.0 - 3.0	Blow Film Extrusion

Descriptive Properties	Value	Comments
Mass Temperature (°C)	190-225	Blow Film Extrusion
Temperature Profile (°C)	170-225	Blow Film Extrusion
UV Stabilizer (ppm)	5750-6500	Braskem PE-6

## **Contact Songhan Plastic Technology Co.,Ltd.**

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