Braskem PE TU3001

Low Density Polyethylene

Braskem

Message:

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 warrants high resistance to aging caused for 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.

Application

Films for greenhouses.

General Information

Tensile Strength

Films for applications that require high mechanical strength and high resistance to aging from solar radiation (UV radiation exposure). Durability:

Films manufactured with TU3001 has 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 130?m. For another geographic region ask for help in our technical department. 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.

Features Antioxidant Good Processability Good UV Resistance High Clarity High Molecular Weight Uses Film Agency Ratings ASTM D 4976-PE115 Appearance Clear/Transparent Processing Method Blown Film Fillm Extrusion Physical Nominal Value Unit Test Method Specific Gravity 0.923 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 0.14 Specific Gravity 0.923 g/cm³ ASTM D792 Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) Unit Test Method ASTM D1238 Fillms Nominal Value Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) MPa 4STM D862	Additive	Antioxidant			
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Film Thickness - Tested 150 µm Secant Modulus ASTM D882 2% Secant, MD : 50 µm, Blown Film 150 MPa	kg)	0.14	g/10 min	ASTM D1238	
Secant Modulus ASTM D882 2% Secant, MD : 50 µm, Blown Film 150 MPa	Films	Nominal Value	Unit	Test Method	
2% Secant, MD : 50 μm, Blown Film 150 MPa	Film Thickness - Tested	150	μm		
	Secant Modulus			ASTM D882	
2% Secant, TD : 50 μm, Blown Film 170 MPa	2% Secant, MD : 50 μm, Blown Film	150	MPa		
	2% Secant, TD : 50 μm, Blown Film	170	MPa		

ASTM D882

MD : Break, 150 µm,Blown Film	30.0	MPa	
TD : Break, 150 µm,Blown Film	25.0	MPa	
Tensile Elongation			ASTM D882
MD : Break, 150 μm,Blown Film	360	%	
TD : Break, 150 µm,Blown Film	740	%	
Dart Drop Impact (150 µm, Blown Film)	410	g	ASTM D1709B
Elmendorf Tear Strength			ASTM D1922
MD : 150 μm, Blown Film	470	g	
TD : 150 µm, Blown Film	700	g	
Optical	Nominal Value	Unit	Test Method
Gloss (60°, 150 µm, Blown Film)	62		ASTM D2457
Haze (150 µm, Blown Film)	16	%	ASTM D1003
Additional Information	Nominal Value	Unit	Test Method
UV Stabilizer	5750 to 6500	ppm	Internal Method
Extrusion	Nominal Value	Unit	
Melt Temperature	170 to 225	°C	

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