

## Petroquimica Triunfo Trithene® TU 3001 LDPE - Agricultural Film

Category: Polymer, Film, Thermoplastic, Polyethylene (PE), LDPE

## **Material Notes:**

The Trithene TU 3001 resin is a low-density polyethylene (LDPE) with high molecular weight, designed to satisfy those applications that require high mechanical properties, good processability and bubble stability. These qualities ensure the production of very wide films with uniform thickness and excellent resistance to UV-radiation. The additive package warrants thermal and light stabilization for greenhouse mid-life films with very good resistance to the traditional soil disinfecting and crop protection chemicals normally applied in agriculture. This product complies with ASTM standard D1248-IA5.Applications: Films for covering of greenhouses and both large and small tunnels. Films for applications that require high mechanical strength and high resistance to aging from solar radiation (UV radiation exposure). Resin Properties: Compressed molded plate. Method ASTM D-1928, procedure C. Film obtained on a 50mm blow film line with barrier screw, 25:1 L/D, 1.0mm die gap, 50µm gauge, 2.3:1 BUR. Information provided by Dax Resinas

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Petroquimica-Triunfo-Trithene-TU-3001-LDPE-Agricultural-Film.php

Physical Properties	Metric	English	Comments
Density	0.922 - 0.924 g/cc	0.0333 - 0.0334 lb/in <sup>3</sup>	ASTM D1505
Thickness	50.0 microns	1.97 mil	
	0.12 - 0.16 g/10 min	0.12 - 0.16 g/10 min	ASTM D1238
Melt Index of Compound	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	18.0 MPa	2610 psi	ASTM D638
Tensile Strength, Yield	11.0 MPa	1600 psi	ASTM D638
Film Elongation at Break, MD	595 %	595 %	ASTM D882
Film Elongation at Break, TD	740 %	740 %	ASTM D882
Elongation at Break	595 %	595 %	ASTM D638
Secant Modulus, MD	0.0920 GPa	13.3 ksi	5%; ASTM D882
Secant Modulus, TD	0.0910 GPa	13.2 ksi	5%; ASTM D882
Coefficient of Friction, Dynamic	0.40	0.40	ASTM D1894
Elmendorf Tear Strength, MD	8.80 g/micron	224 g/mil	ASTM D1922
Elmendorf Tear Strength, TD	14.4 g/micron	366 g/mil	ASTM D1922
Dart Drop Test	395 g	0.871 lb	(method A); ASTM D1709



Mechanical Properties  Mechanical Properties	20.0 MPa Metric	2900 psi English	Comments Comments	
Film Tensile Strength at Break, TD	22.0 MPa	3190 psi	ASTM D882	

Thermal Properties	Metric	English	Comments
Vicat Softening Point	95.0 °C	203 °F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	16 %	16 %	ASTM D1003
Gloss	62 %	62 %	@ 60° Gardner; ASTM D2457

Processing Properties	Metric	English	Comments
Processing Temperature	180 - 195 °C	356 - 383 °F	Mixture Zone
Feed Temperature	170 - 185 °C	338 - 365 °F	
Adapter Temperature	200 - 220 °C	392 - 428 °F	
Blow-up Ratio (BUR)	3.0	3.0	Recommended

Descriptive Properties	Value	Comments
UV Stabilizer ppm	5750-6500	PTN-579-Q`

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

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