

## Petroquimica Triunfo Trithene® TU 8091 LDPE - Agricultural Film

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

### Material Notes:

Trithene TU 8091 is a low-density polyethylene (LDPE) with high molecular weight, with excellent mechanical properties and good processability. These qualities ensure the production of very wide films with uniform thickness and excellent resistance to UV-radiation. The Trithene TU 8091 resin is stabilized with a synergistic combination of a hindered amine (HALS) with UV absorbers and antioxidants. 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-8091-LDPE-Agricultural-Film.php](http://www.lookpolymers.com/polymer_Petroquimica-Triunfo-Trithene-TU-8091-LDPE-Agricultural-Film.php)

Physical Properties	Metric	English	Comments
Density	0.922 - 0.924 g/cc	0.0333 - 0.0334 lb/in³	ASTM D1505
Thickness	50.0 microns	1.97 mil	
Melt Index of Compound	0.10 - 0.14 g/10 min @Load 2.16 kg, Temperature 190 °C	0.10 - 0.14 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238

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	625 %	625 %	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	0.56	0.56	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 Mechanical Properties	395 g Metric	0.871 lb English	(method A): ASTM D1709 Comments
Film Tensile Strength at Break, MD	20.0 MPa	2900 psi	ASTM D882
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	13 %	13 %	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

## Contact Songhan Plastic Technology Co.,Ltd.

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