

## Petroquimica Triunfo Trithene® TS 7003 LDPE - High Strength Film

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

### Material Notes:

The Trithene® TS 7003 resin is a low-density, high molecular-weight polyethylene that offers high mechanical strength and toughness even at low temperatures. Additionally, this product is easily processed and allows high thickness uniformity. The product was developed to meet the requirements for automatic packaging: good clarity, productivity, low coefficient of friction (COF) and sealability. Trithene® TS 7003 resin shows excellent performance in conventional extruders and low energy consumption during processing. This product complies with ASTM standard D1248-IA5 and the requirements of Brazilian and corresponding legislation of Mercosul and it is in conformity with FDA Regulations 21 CFR 177.1520 (c) 2.1, to contact with foodstuff. Applications: Films for automatic packaging of liquids, such as milk, yogurt, juices, etc. Packaging for frozen food: meat, chicken, seafood, fries, etc. 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-TS-7003-LDPE-High-Strength-Film.php](http://www.lookpolymers.com/polymer_Petroquimica-Triunfo-Trithene-TS-7003-LDPE-High-Strength-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	
Melt Index of Compound	0.23 - 0.30 g/10 min @Load 2.16 kg, Temperature 190 °C	0.23 - 0.30 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	17.0 MPa	2470 psi	ASTM D638
Tensile Strength, Yield	11.0 MPa	1600 psi	ASTM D638
Film Elongation at Break, MD	300 %	300 %	ASTM D882
Film Elongation at Break, TD	625 %	625 %	ASTM D882
Elongation at Break	585 %	585 %	ASTM D638
Secant Modulus, MD	0.115 GPa	16.7 ksi	5%; ASTM D882
Secant Modulus, TD	0.125 GPa	18.1 ksi	5%; ASTM D882
Coefficient of Friction, Dynamic	0.15	0.15	ASTM D1894
Elmendorf Tear Strength, MD	6.00 g/micron	152 g/mil	ASTM D1922
Elmendorf Tear Strength, TD	4.60 g/micron	117 g/mil	ASTM D1922

<b>Dart Drop Test</b> Mechanical Properties	<b>190 g</b> Metric	<b>0.419 lb</b> English	<b>(method A): ASTM D1709</b> Comments
Film Tensile Strength at Break, MD	27.0 MPa	3920 psi	ASTM D882
Film Tensile Strength at Break, TD	23.5 MPa	3410 psi	ASTM D882

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Vicat Softening Point	94.0 °C	201 °F	ASTM D1525

<b>Optical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Haze	18 %	18 %	ASTM D1003
Gloss	64 %	64 %	@ 60° Gardner; ASTM D2457

<b>Processing Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Processing Temperature	165 - 175 °C	329 - 347 °F	Plasticizing Zone
	170 - 190 °C	338 - 374 °F	Mixture Zone
Feed Temperature	160 - 170 °C	320 - 338 °F	
Adapter Temperature	185 - 200 °C	365 - 392 °F	
Blow-up Ratio (BUR)	3.0	3.0	Recommended

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China