

## Petroquimica Triunfo Trithene® TS 7001 LDPE - Heavy Duty Low Friction Film

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

## **Material Notes:**

The Trithene TS 7001 resin is a low-density polyethylene (LDPE) with high molecular weight, designed to satisfy those applications that require high mechanical strength and low coefficient of friction (COF). These characteristics are especially suitable for high capacity tubular silo production that requires easy mechanical filling in the field. Trithene TS 7001 resin presents an excellent performance in conventional LDPE extruders, granting low energy consumption during the whole process and allowing the production of films with a good dimensional uniformity and an excellent surface finishing. 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: Tubular silos for animal food storage.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-7001-LDPE-Heavy-Duty-Low-Friction-Film.php

| Physical Properties    | Metric  | English                              | Comments   |
|------------------------|---|--------------------------------------|------------|
| Density                | 0.921 - 0.923 g/cc 0.0333 - 0.0333 lb/in <sup>3</sup> |                                      | ASTM D1505 |
| Thickness              | 50.0 microns  | 1.97 mil                             |            |
| Melt Index of Compound | 0.10 - 0.14 g/10 min                                  | 0.10 - 0.14 g/10 min                 |            |
|                        | @Load 2.16 kg,<br>Temperature 190 °C                  | @Load 4.76 lb,<br>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     | 275 %         | 275 %     | ASTM D882     |
| Film Elongation at Break, TD     | 645 %         | 645 %     | ASTM D882     |
| Elongation at Break              | 625 %         | 625 %     | ASTM D638     |
| Secant Modulus, MD               | 0.120 GPa     | 17.4 ksi  | 5%; ASTM D882 |
| Secant Modulus, TD               | 0.130 GPa     | 18.9 ksi  | 5%; ASTM D882 |
| Coefficient of Friction, Dynamic | 0.15          | 0.15      | ASTM D1894    |
| Elmendorf Tear Strength, MD      | 6.80 g/micron | 173 g/mil | ASTM D1922    |
| Elmendorf Tear Strength, TD      | 5.60 g/micron | 142 g/mil | ASTM D1922    |
|                                  |               |           |               |



| Mechanical Properties              | Metric   | n 453 lb<br>English | (method A); ASTM D1709<br>Comments |
|------------------------------------|----------|---------------------|------------------------------------|
| Film Tensile Strength at Break, MD | 28.0 MPa | 4060 psi            | ASTM D882                          |
| Film Tensile Strength at Break, TD | 26.0 MPa | 3770 psi            | ASTM D882                          |

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

| Processing Properties  | Metric            | English            | Comments          |
|------------------------|-------------------|--------------------|-------------------|
| Processing Temperature | 180 - 195 °C      | 356 - 383 °F       | Plasticizing Zone |
|                        | 200 - 210 °C      | 392 - 410 °F       | Mixture Zone      |
| Feed Temperature       | 170 - 185 °C      | 338 - 365 °F       |                   |
| Adapter Temperature    | 210 - 225 °C      | 410 - 437 °F       |                   |
| Die Opening            | 0.0800 - 0.100 cm | 0.0315 - 0.0394 in |                   |
| Blow-up Ratio (BUR)    | 3.0               | 3.0                | Recommended       |

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

Website: www.lookpolymers.com Email: sales@lookpolymers.com

Tel: +86 021-51131842 Mobile: +86 13061808058 Skype: lookpolymers

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