

## Petroquimica Triunfo Tritheva® TN 2020 EVA Copolymer

Category : Polymer , Film , Thermoplastic , Ethylene Vinyl Acetate

### Material Notes:

The Tritheva TN 2020 resin is a Ethylene-Vinyl Acetate copolymer (EVA) developed to mostly meet the needs of the multi-layer packaging segment produced by coextrusion and/or lamination processes. The structures produced with TN 2020 and PVdC or PA allow radiation treatment and present low rates of water vapor and oxygen permeation, which together ensure a longer shelf life for the food packed in this film. Since it presents an exceptional weldability, this product meets the requirements for automatic or semi-automatic lines of cutting, welding, and/or packaging (with or without vacuum-packed process). Tritheva TN 2020 resin has excellent performance during the extrusion operation, thermal stability, and a low consumption of energy for its processing, rendering to package production a dimensional uniformity and excellent visual properties with high transparency and gloss that enhance the printing and surface finish of the packaging. This product complies with the requirements of Brazilian and corresponding legislation of Mercosul and it is in conformity with FDA Regulations 21 CFR 177.1350, to contact with foodstuff. Applications: Shrinkable packaging for food stuff, such as: cheese, meat, ham, salami and other processed meats. Packaging for frozen products. 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-Tritheva-TN-2020-EVA-Copolymer.php](http://www.lookpolymers.com/polymer_Petroquimica-Triunfo-Tritheva-TN-2020-EVA-Copolymer.php)

| Physical Properties    | Metric                                                     | English                                                    | Comments   |
|------------------------|------------------------------------------------------------|------------------------------------------------------------|------------|
| Density                | 0.931 g/cc                                                 | 0.0336 lb/in³                                              | ASTM D1505 |
| Vinyl Acetate Content  | 8.0 - 9.0 %                                                | 8.0 - 9.0 %                                                |            |
| Thickness              | 50.0 microns                                               | 1.97 mil                                                   |            |
| Melt Index of Compound | 1.7 - 2.3 g/10 min<br>@Load 2.16 kg,<br>Temperature 190 °C | 1.7 - 2.3 g/10 min<br>@Load 4.76 lb,<br>Temperature 374 °F | ASTM D1238 |

| Mechanical Properties        | Metric     | English  | Comments      |
|------------------------------|------------|----------|---------------|
| Hardness, Shore A            | 85         | 85       | ASTM D2240    |
| Tensile Strength at Break    | 19.0 MPa   | 2760 psi | ASTM D638     |
| Tensile Strength, Yield      | 7.00 MPa   | 1020 psi | ASTM D638     |
| Film Elongation at Break, MD | 485 %      | 485 %    | ASTM D882     |
| Film Elongation at Break, TD | 725 %      | 725 %    | ASTM D882     |
| Elongation at Break          | 700 %      | 700 %    | ASTM D638     |
| Secant Modulus, MD           | 0.0670 GPa | 9.72 ksi | 5%; ASTM D882 |

| Secant Modulus, TD<br>Mechanical Properties | 0.0640 GPa<br>Metric | 9.28 ksi<br>English | 5%: ASTM D882<br>Comments |
|---------------------------------------------|----------------------|---------------------|---------------------------|
| Film Tensile Strength at Break, MD          | 25.0 MPa             | 3630 psi            | ASTM D882                 |
| Film Tensile Strength at Break, TD          | 22.0 MPa             | 3190 psi            | ASTM D882                 |

| Thermal Properties    | Metric  | English | Comments   |
|-----------------------|---------|---------|------------|
| Melting Point         | 100 °C  | 212 °F  | ASTM D3418 |
| Vicat Softening Point | 79.0 °C | 174 °F  | ASTM D1525 |

| Optical Properties | Metric | English | Comments                  |
|--------------------|--------|---------|---------------------------|
| Haze               | 1.8 %  | 1.8 %   | ASTM D1003                |
| Gloss              | 140 %  | 140 %   | @ 60° Gardner; ASTM D2457 |

| Processing Properties  | Metric       | English      | Comments          |
|------------------------|--------------|--------------|-------------------|
| Processing Temperature | 135 - 150 °C | 275 - 302 °F | Plasticizing Zone |
|                        | 145 - 165 °C | 293 - 329 °F | Mixture Zone      |
| Feed Temperature       | 135 - 140 °C | 275 - 284 °F |                   |
| Adapter Temperature    | 165 - 185 °C | 329 - 365 °F |                   |
| Blow-up Ratio (BUR)    | 3.0          | 3.0          | Recommended       |

## Contact Songhan Plastic Technology Co.,Ltd.

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