## Advanced Elastomer Systems Trefsin® 3101-75 W305 Thermoplastic Rubber (discontinued \*\*)

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Elastomer, Melt-Processible Rubber

## Material Notes:

A black thermoplastic elastomer with excellent permeation resistance to water, air and other gases. It can be processed using injection molding, extrusion, blow molding or other melt processing techniques.Key Features: Permeability - Air permeation rate @ 23°C (73°F), (ASTM D 1434) 57 cm3.mm/m2.day.atm (Based on testing of 65A TREFSIN Rubber); TREFSIN rubber is also relatively impermeable to a wide variety of other fluids and gases, and exhibits good resistance to various chemicals, heat and weathering.Additional processing comments: This thermoplastic rubber is a shear-dependent material that can be processed on conventional thermoplastic equipment for injection molding, extrusion, or blow molding. For extrusion, a general purpose screw with a compression ratio of 2.5 to 3.0 is recommended. Material can be recycled. TREFSIN rubber is incompatible with acetal and PVC.Values below are for injection molded plaques, side gated, 82.6 mm x 117.5 mm x 3.0 mm. Tensile properties measured across flow. Data provided by Advanced Elastomer Systems is now a part of ExxonMobil. This grade was removed from the Advanced Elastomers Systems standard product line before the ExxonMobil acquisiton.

Order this product through the following link:

http://www.lookpolymers.com/polymer\_Advanced-Elastomer-Systems-Trefsin-3101-75-W305-Thermoplastic-Rubber-nbspdiscontinued-.php

| Physical Properties | Metric                     | English                         | Comments  |
|---------------------|----------------------------|---------------------------------|---|
| Density             | 0.950 g/cc                 | 0.0343 lb/in <sup>3</sup>       | TPE-0105 (ASTM D792)                                |
| Oxygen Transmission | 57.0 cc-mm/m²-24hr-<br>atm | 145 cc-mil/100 in²-<br>24hr-atm | Air permeation rate @ 23°C (73°F),<br>(ASTM D 1434) |

| Mechanical Properties      | Metric              | English             | Comments                                    |
|----------------------------|---------------------|---------------------|---|
| Hardness, Shore A          | 75                  | 75                  | 5 Second; TPE-0169 (ASTM D 2240)            |
| Tensile Strength, Ultimate | 6.90 MPa            | 1000 psi            | TPE-0153 (ASTM D 412)                       |
| Elongation at Break        | 350 %               | 350 %               | TPE-0153 (ASTM D 412)                       |
| 100% Modulus               | 0.00360 GPa         | 0.522 ksi           | TPE-0153 (ASTM D 412)                       |
| Graves Tear Strength       | 28.0 kN/m           | 160 pli             | TPE-0056 (ASTM D 624)                       |
| Compression Set            | 29 %                | 29 %                | 23°C, 22 hrs.; TPE-0016 (ASTM D<br>412)     |
|                            | 54 %                | 54 %                | 22 hrs.; TPE-0016 (ASTM D 412)              |
|                            | @Temperature 100 °C | @Temperature 212 °F |   |
| Tensile Set                | 20 %                | 20 %                | 23°C, 22 hrs.; per TPE-0053 (ASTM D<br>412) |



| Processing Properties  | Metric       | English      | Comments                                 |
|------------------------|--------------|--------------|--|
| Processing Temperature | 180 - 225 °C | 356 - 437 °F |  |
| Drying Temperature     | 82.0 °C      | 180 °F       | Desiccant drying for 3 hours recommended |
| Dry Time               | 3 hour       | 3 hour       |  |

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