

Product Information

POLY-TREL™ Compound HT55-OR, 55 Shore D

TPC-ET thermoplastic polyester elastomer

| Property | Test Method | Units | Value |
|---|----------------|----------------------|----------------|
| Tensile Modulus | ISO 527-1/-2 | psi | 27,557 |
| Stress @5% Strain | ISO 527-1/-2 | psi | 1,000 |
| Stress @10% Strain | ISO 527-1/-2 | psi | 1,600 |
| Stress @ 50% Strain | ISO 527-1/-2 | psi | 2,030 |
| Stress at Break | ISO 527-1/-2 | psi | 5,800 |
| Nominal Strain at Break | ISO 527-1/-2 | % | 780 |
| Strain at Break | ISO 527-1/-2 | % | >300 |
| Flexural Modulus | ISO 178 | psi | 29,000 |
| Shear Modulus | ISO 6721 | psi | 9,430 |
| Tensile creep modulus, 1000h | ISO 899-1 | psi | 18,900 |
| Charpy Impact Strength, 23°C | ISO 179/1eU | ftlb/in ² | N |
| Charpy Impact Strength, -30°C | ISO 179/1eU | ftlb/in ² | N |
| Charpy Notched Impact Strength, -30°C | ISO 179/1eU | ftlb/in ² | 71.4 |
| Charpy Notched Impact Strength, -40°C | ISO 179/1eU | ftlb/in ² | 14.3 |
| Poisson's Ratio | | | .48 |
| Compression Set at 70°C | ISO 815 | % | 60 |
| Brittleness Temperature | ISO 974 | °F | -144 |
| Shore D Hardness, 15s | ISO 868 | D | 51 |
| Shore D Hardness, Max | ISO 868 | D | 55 |
| Tear Strength, parallel | ISO 34-1 | kN/m | 133 |
| Tear Strength, Normal | ISO 34-1 | kN/m | 133 |
| Abrasion Resistance | ISO 4649 | mm ³ | 120 |
| Melting Temperature, 10°C/min | ISO 11357-1/-3 | °F | 397 |
| Glass Transition Temperature (10°C/min) | ISO 11357-1/2 | °F | -4 |
| Vicat Softening Temperature, 50°C/h, 10N | ISO 306 | °F | 356 |
| Coeff. Of Linear Therm. Expansion, Parallel | ISO 11359-1/2 | E-4/°F | 1.11 |
| Coeff. Of Linear Therm. Expansion, Normal | ISO 11359-1/2 | E-4/°F | 1.11 |
| Shelf Life | ISO R1183 | | 10 years |
| Service Temperature Range* | | | -65°F to 275°F |
| Color | | | ORANGE |

Test specimen for ISO 527 is 1BA (2mm) at 50mm/min; all other ISO & ASTM mechanical properties measured at 4mm; electrical properties measured at 2mm.
All mechanical & electrical properties measured on injection molded specimens.
Test temperatures are 23°C unless otherwise stated.

The information provided in this data sheet corresponds to our knowledge on the subject at the date of this publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such materials used in combination with any other material, additives or pigments or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specifications limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to do to determine the suitability of a specific compound for your particular purpose. Since Engineered Seals, LLC cannot anticipate all variation in actual end-use conditions ESC makes no warranties and assumes no liability in connection with any use of this information. Caution: Do not use this product in

medical application involving permanent implantation in the human body.

***We highly recommend testing in your specific application, this is a guide only.**

