

## Fluid-Resistant Modified Elastomer

### Product Facts

- Excellent heat and fluid resistance
- Low profile
- Rugged
- Lightweight



### Applications

A high-performance blend of fluoroelastomers and other polymers, TE -50 material offers excellent fluid and temperature resistance. It is suitable for use in most areas of military vehicle harnessing. This material is available in the Uniboot shape and should be chosen in applications that use System 30 components. The standard color is black.

### Installation

-50 molded parts will shrink on the application of heat above 150°C [302°F].

Recommended installation temperature is 175°C [347°F]

### Operating Temperature Range

-55°C to 150°C  
[-67°F to 302°F]

| Available in: | Americas | Europe | Asia Pacific |
|---------------|----------|--------|--------------|
|               | ■        | ■      | ■            |

## -50 (Continued)

## Specifications/Approvals

| Specification     | TE      |
|-------------------|---------|
| SC-X-15111 (U.S.) | RT-1313 |

## Product Characteristics

|                  |                                               | Specification Requirements                                        | Test Method                                            |
|------------------|-----------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------|
| Physical         | Tensile strength                              | 15 MPa (min.)                                                     | ASTM D 412                                             |
|                  | Ultimate elongation                           | 350% (min.)                                                       | ASTM D 412                                             |
|                  | Specific gravity                              | 1.5 (max.)                                                        | ASTM D 792                                             |
| Thermal          | Heat aging for 168 h at 150°C [302°F]         | Ultimate elongation 300% (min.)                                   | ASTM D 412                                             |
|                  | Heat shock for 4 h at 225°C [437°F]           | No dripping, cracking, or flowing                                 | ASTM D 2671                                            |
|                  | Low-temperature flex for 4 h at -70°C [-94°F] | No cracking during mandrel bend                                   | ASTM D 2671                                            |
|                  | Flammability (burn time)                      | 120 s (max.)                                                      | ASTM D 635                                             |
| Electrical       | Electric strength                             | 8 MV/m                                                            | ASTM D 149                                             |
| Fluid resistance | Aviation fuel JP-4 (MIL-T-5624)               | Tensile strength 12 MPa (min.)<br>Ultimate elongation 300% (min.) | ASTM D 412<br>after immersion for 24 h at 25°C [77°F]  |
|                  | Hydraulic fluid (MIL-H-6083)                  | Tensile strength 12 MPa (min.)<br>Ultimate elongation 300% (min.) | ASTM D 412<br>after immersion for 24 h at 25°C [77°F]  |
|                  | Diesel fuel (VV-F-800 No 2)                   | Tensile strength 12 MPa (min.)<br>Ultimate elongation 300% (min.) | ASTM D 412<br>after immersion for 24 h at 50°C [122°F] |
|                  | Automotive gasoline (MIL-G-3056)              | Tensile strength 12 MPa (min.)<br>Ultimate elongation 300% (min.) | ASTM D 412<br>after immersion for 24 h at 25°C [77°F]  |
|                  |                                               |                                                                   |                                                        |