

Materials

# -50

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]

# Molded Parts

4-35

Catalog 1654025 Revised 5-12

www.te.com

Dimensions are shown for reference purposes only. Specifications subject to change.

Available in:

Dimensions are in millimeters unless otherwise specified. USA: +1 (800) 522-6752

Americas

Canada: +1 (905) 475-6222 Mexico/C. Am.: +52 (0) 55-1106-0800 Latin/S. Am.: +54 (0) 11-4733-2200 Germany: +49 (0) 6251-133-1999

Europe

UK: +44 (0) 800-267666 France: +33 (0) 1-3420-8686 Netherlands: +31 (0) 73-6246-999 China: +86 (0) 400-820-6015

Asia Pacific



Materials

## -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.) Ultimate elongation 300% (min.)	ASTM D 412 after immersion for 24 h at 25°C [77°F]
	Hydraulic fluid (MIL-H-6083)	Tensile strength 12 MPa (min.) Ultimate elongation 300% (min.)	ASTM D 412 after immersion for 24 h at 25°C [77°F]
	Diesel fuel (VV-F-800 No 2)	Tensile strength 12 MPa (min.) Ultimate elongation 300% (min.)	ASTM D 412 after immersion for 24 h at 50°C [122°F]
	Automotive gasoline (MIL-G-3056)	Tensile strength 12 MPa (min.) Ultimate elongation 300% (min.)	ASTM D 412 after immersion for 24 h at 25°C [77°F]