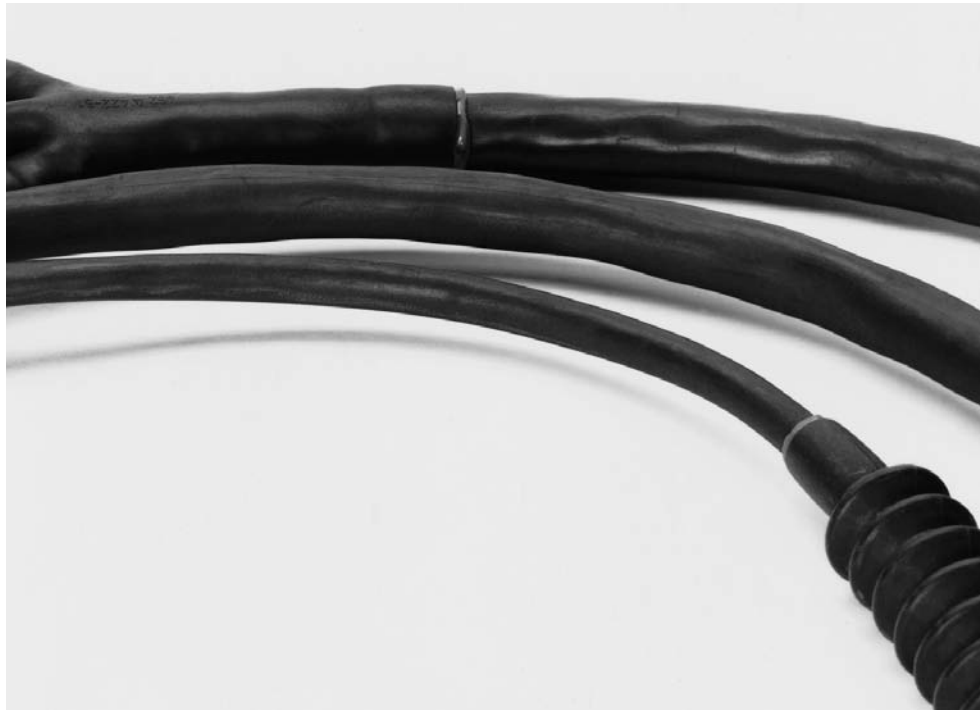


**Very Flexible, Rugged Neoprene Elastomer Tubing**

**Product Facts**

- Remains flexible at low temperatures without cracking
- Offers outstanding resistance to abrasion and physical abuse while providing the flexibility and strain relief needed for rugged applications
- Resistant to most fluids and solvents, including aviation and ground-vehicle fuels, lubricating oil, and hydraulic fluids (see Raychem Specification RT-511)
- Performance exceeds the stringent requirements of SAE-AMS-DTL-23053/1, Class 2
- System 20
- RoHS compliant

**NTFR**



**Applications**

Widely used for insulation, strain relief, and abrasion protection on cable harnesses and wire bundles in the military and aerospace industries. Especially suitable for applications requiring exposure to fluids and solvents at elevated temperatures.

**Installation**

Minimum shrink temperature: 90°C [194°F]  
Minimum full recovery temperature: 135°C [275°F]

**Operating Temperature Range**

-70°C to 121°C [-94°F to 250°F]

**Specifications/Approvals**

| Series | Military   | Agency   | Raychem |
|--------|------------|----------|---------|
| NTFR   | SC-X-15112 | AMS 3623 | RT-511  |

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

**NTFR** (Continued)

**Product Dimensions**

| Size  | Inside Diameter              |                                 | Recovered Wall Thickness**  |
|-------|------------------------------|---------------------------------|-----------------------------|
|       | Minimum Expanded as Supplied | Maximum Recovered After Heating | After Heating               |
| 1/8   | 3.2 [0.125]                  | 1.6 [0.061]                     | 0.69 ± 0.20 [0.027 ± 0.008] |
| 3/16  | 4.8 [0.187]                  | 2.5 [0.100]                     | 0.84 ± 0.25 [0.033 ± 0.010] |
| 1/4   | 6.4 [0.250]                  | 3.6 [0.143]                     | 0.89 ± 0.25 [0.035 ± 0.010] |
| 3/8   | 9.5 [0.375]                  | 5.5 [0.214]                     | 1.01 ± 0.25 [0.040 ± 0.010] |
| 1/2   | 12.7 [0.500]                 | 7.3 [0.286]                     | 1.21 ± 0.38 [0.048 ± 0.015] |
| 5/8   | 15.9 [0.625]                 | 9.1 [0.357]                     | 1.32 ± 0.38 [0.052 ± 0.015] |
| 3/4   | 19.1 [0.750]                 | 10.9 [0.428]                    | 1.44 ± 0.38 [0.057 ± 0.015] |
| 7/8   | 22.2 [0.875]                 | 12.7 [0.500]                    | 1.65 ± 0.38 [0.065 ± 0.015] |
| 1     | 25.4 [1.000]                 | 14.5 [0.570]                    | 1.77 ± 0.51 [0.070 ± 0.020] |
| 1 1/4 | 31.8 [1.250]                 | 18.1 [0.714]                    | 2.20 ± 0.51 [0.087 ± 0.020] |
| 1 1/2 | 38.1 [1.500]                 | 21.8 [0.857]                    | 2.41 ± 0.51 [0.095 ± 0.020] |
| 1 3/4 | 44.5 [1.750]                 | 25.4 [1.000]                    | 2.71 ± 0.51 [0.107 ± 0.020] |
| 2     | 50.8 [2.000]                 | 29.0 [1.140]                    | 2.79 ± 0.51 [0.110 ± 0.020] |
| 3     | 76.2 [3.000]                 | 43.4 [1.710]                    | 3.17 ± 0.51 [0.125 ± 0.020] |

\*\*Wall thickness will be less if tubing recovery is restricted during shrinkage.

**Ordering Information**

|                      |   |            |
|----------------------|---|------------|
| Color                | Standard  | Black (-0) |
| Size selection       | Always order the largest size that will shrink snugly over the component to be covered. Special order sizes are available upon request. |            |
| Standard packaging   | On spools.  |            |
| Ordering description | Specify product name, size and color (for example, NTFR 1/4-0).   |            |