

Special Purpose Tubing

NTFR

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



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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]

Spec

Specifications/Approva	als Series	Military	Agency	Raychem	•
	NTFR	SC-X-15112	AMS 3623	RT-511	
	Available in:	Americas	Europe	Asia Pacific	
					3-87
Catalog 1654025 Revised 12-04 www.tycoelectronics.com	Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are U.S. equivalents.	Dimensions are shown for reference purposes only. Specifications subject to change.	USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-5-729-0425	South America: 55-11-3611-1514 Japan: 81-44-900-5102 Singapore: 65-4866-151 UK: 44-1793-528171	-



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Recovered Wall Thickness**

After Heating

 $0.69 \pm 0.20 [0.027 \pm 0.008]$

 $0.84 \pm 0.25 [0.033 \pm 0.010]$

 $0.89 \pm 0.25 \ [0.035 \pm 0.010]$

1.01 ± 0.25 [0.040 ± 0.010]

1.21 ± 0.38 [0.048 ± 0.015]

1.32 ± 0.38 [0.052 ± 0.015]

1.44 ± 0.38 [0.057 ± 0.015] 1.65 ± 0.38 [0.065 ± 0.015]

1.77 ± 0.51 [0.070 ± 0.020]

2.20 ± 0.51 [0.087 ± 0.020]

 $2.41 \pm 0.51 [0.095 \pm 0.020]$

 $2.71 \pm 0.51 \ [0.107 \pm 0.020]$

2.79 ± 0.51 [0.110 ± 0.020]

3.17 ± 0.51 [0.125 ± 0.020]

NTFR (Continued)

3/4

7/8

1

1 1/4

1 1/2

1 3/4

2

3

Product Dimensions		Inside Diameter	
	Size	Minimum Expanded as Supplied	Maximum Recovered After Heating
	1/8	3.2 [0.125]	1.6 [0.061]
	3/16	4.8 [0.187]	2.5 [0.100]
	1/4	6.4 [0.250]	3.6 [0.143]
	3/8	9.5 [0.375]	5.4 [0.211]
	1/2	12.7 [0.500]	7.3 [0.286]
	5/8	15.9 [0.625]	9.1 [0.357]

19.1 [0.750]

22.2 [0.875]

25.4 [1.000]

31.8 [1.250]

38.1 [1.500]

44.5 [1.750]

50.8 [2.000]

76.2 [3.000]

**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, siz	e and color (for example, NTFR 1/4-0).

10.9 [0.428]

12.7 [0.500] 14.5 [0.570]

18.1 [0.714]

21.8 [0.857]

25.4 [1.000]

29.0 [1.140]

43.4 [1.710]