

NETM1000

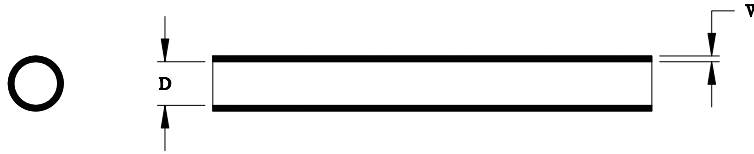


Table 1: Dimensions

Size	Inside Diameter (D)		Wall Thickness (W)	
	mm.	in.	mm.	in.
3	3 ± 0.5	$.118 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
4	4 ± 0.5	$.157 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
5	5 ± 0.5	$.197 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
6	6 ± 0.5	$.236 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
8	8 ± 0.5	$.315 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
10	10 ± 0.5	$.394 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
12	12 ± 0.5	$.472 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$
14	14 ± 0.5	$.551 \pm .02$	$0.5 \pm .1$	$.020 \pm .004$

Table 2: Properties

Property	Unit	Requirement	Test Method
Dimensions	Inches (mm)	Table 1	ASTM D 2671
Tensile Strength	PSI (MPa)	1500 (10.3) minimum	ASTM D 2671 20 inches/minute
Elongation	Percent	150 minimum	
Longitudinal Change	Percent	-10 maximum	ASTM D 2671
Low Temperature Flexibility 4 Hours at $-55^{\circ} \pm 3^{\circ}\text{C}$	--	No cracking	Note 1
Heat Shock 4 hours at $250^{\circ} \pm 3^{\circ}\text{C}$	--	No dripping, flowing or cracking	ASTM D 2671
Heat Age, 168 hours at $175^{\circ} \pm 3^{\circ}\text{C}$ followed by tests for Tensile Strength Elongation	PSI (MPa) Percent	1500 (10.3) minimum 150 minimum	ASTM D 2671 20 inches/minute
Volume Resistivity	ohm-m	10^3 minimum	ASTM D 2671
Flammability	--	No flaming or glowing longer than 1 minute from any flame application. 25% max. flag burn. No burning of cotton.	ASTM D 2671 Procedure C
Voltage Withstand	Volts	1000 volts for 1 minute, minimum	ASTM D 2671

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Customer Drawing

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			Raychem Tubing	Title: NETM1000	
Tyco Electronics reserves the right to amend this drawing at any time. Users should evaluate the suitability of the product for their application			Document No : NETM1000		
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Properties, continued

Property	Unit	Requirement	Test Method
Fluid Resistance			Note 2
1 Hour at 50°C in Battery Acid followed by test for: Weight Increase	Percent	15 maximum	
24 Hour at 23°C in Gasoline Diesel Fuel Transmission Oil Power Steering Fluid followed by test for: Weight Increase	Percent	15 maximum	
1 Hour at 50°C in Motor Oil 15W/40 Brake Fluid, DOT 4 followed by test for: Weight Increase	Percent	15 maximum	
1 Hour at 23°C in Antifreeze 50/50 followed by test for: Weight Increase	Percent	15 maximum	

Note 1: Test three specimens of tubing for low temperature flexibility as follows: Slide the tubing onto a stranded AWG wire (nearest AWG which will fit inside the tube). Condition the specimens and a mandrel, selected from Table 2, in a cold chamber for 4 hours at $-55 \pm 3^\circ\text{C}$ ($-67 \pm 5^\circ\text{F}$). After completion of the conditioning period and while still in the cold chamber at the specified temperature, bend the specimen around the mandrel through not less than 360 degrees in 10 ± 2 seconds. Visually examine the tubing for cracks.

Note 2: Six specimens, three 6-inch (150-mm) tubing specimens, which shall be weighed prior to immersion and shall be immersed in each of the test fluids listed at the temperature specified. The volume of the fluid shall not be less than 20 times that of the specimens. After conditioning, all the specimens shall be lightly wiped and air dried for 30 to 60 minutes at $23 \pm 3^\circ\text{C}$ ($73 \pm 5^\circ\text{F}$). The three specimens shall be reweighed after immersion and the weight change calculated as a percentage.

Table 3: Mandrel Dimensions for Bend Testing

Size	Mandrel Diameter	
	mm	in.
3 to 6 inclusive	7.9 ± 0.05	$5/16 \pm 0.002$
8 to 14 inclusive	9.5 ± 0.08	$3/8 \pm 0.003$

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