



# MDT Tubing

Medium-Duty, Polyolefin

## Data Sheet

### Product Description

3M™ MDT Tubing offers increased flexibility in combination with excellent abrasion, corrosion and environmental resistance properties and meets MIL-DTL-23053/15, Class 2.

Uncoated product (without sealant) is available on special order. 3M MDT medium-duty tubing is designed to provide reliable performance as well as excellent mechanical and environmental protection. These flame-retardant products combine the important advantages of easy handling and installation with maximum operating reliability and system protection.

MDT comes with a factory-applied sealant. This sealant is a heat-activated thermoplastic material that remains soft and flexible over long periods under adverse environmental conditions. During heating the sealant softens, bonds to underlying surfaces and fills small voids that might be present. When cool, the sealant forms a barrier against water, moisture, dirt and other environmental contaminants.

### Typical Applications

MDT Tubing installs easily and has shrink ratios to accommodate effective insulating and sealing over large transitions, splices and battery cables.

### Standard Colors

All sizes available in black. MDT-0400, -0800 and -1100 are also available in red.

### Standard Packaging

Four-foot lengths. Other lengths are available subject to special quotation.

### Ordering Information

Order MDTTubing by product name, size equivalent to the expanded inside diameter, package type and color. Always order the largest size that will shrink snugly over the component to be covered.

Example: MDT-1100-48A, 4 ft., black.

### Standard Sizes and Dimensions (without adhesive)

Part Number	Cable Range	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Outer Wall Thickness (Nominal)		Length in.	Std. Pkg. Pieces/ Carton	Color
		in.	(mm)	in.	(mm)	in.	(mm)			
MDT-0400-48A	#12 - #6 AWG	.40	(10,2)	.15	(3,8)	.09	(2,3)	48	20	Red and Black
MDT-0800-48A	#8 - #3 AWG	.80	(20,3)	.22	(5,6)	.10	(2,5)	48	20	Red and Black
MDT-1100-48A	#2 - 2/0 AWG	1.10	(27,9)	.37	(9,4)	.10	(2,5)	48	20	Red and Black
MDT-1300-48A	#1 - 4/0 AWG	1.30	(33,0)	.43	(10,9)	.10	(2,5)	48	15	Black Only
MDT-1500-48A	1/0 - 250 MCM	1.50	(38,1)	.50	(12,7)	.10	(2,5)	48	20	Black Only
MDT-1700-48A	4/0 - 400 MCM	1.70	(43,2)	.60	(15,2)	.10	(2,5)	48	20	Black Only
MDT-2000-48A	300 - 500 MCM	2.00	(50,8)	.75	(19,1)	.10	(2,5)	48	15	Black Only
MDT-3000-48A	600 - 1250 MCM	3.00	(76,2)	1.00	(25,4)	.12	(3,0)	48	15	Black Only
MDT-4300-48A	1000 - 2500 MCM	4.30	(109,2)	1.50	(38,1)	.15	(3,8)	48	10	Black Only

### Typical Properties

Applicable Specification – MIL-DTL-23053/15, Class 2; ABS			
<b>Physical</b>		*Low Temperature Flexibility	No cracking
Tensile Strength	2400 PSI	(4 hrs. @ -55°C)	
Ultimate Elongation	475%	Flammability	Self-extinguish
Longitudinal Change	+1, -10%	<b>Electrical</b>	
Secant Modulus	14,000 PSI	Dielectric Strength	500 V/mil (60 mils)
Specific Gravity	1.28	Volume Resistivity	10 <sup>14</sup> ohm-cm
*Heat Aging	7 days @ 175°C		
	Elongation 225%		
*Heat Shock	No dripping,	Technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.	
(4 hrs. @ 225°C)	cracking, flowing		

\* Outer wall only.

**Limited Warranty** – 3M expressly warrants that for a period of ninety days from the date of purchase, 3M static control products will be free of defects in materials (parts) and workmanship (labor). Defects occurring during the warranty period will be repaired or products will be replaced at 3M's option and expense, if 3M receives notice during the warranty period. Defective products must be returned to 3M with proof of purchase date.

**Warranty Exclusions** – THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESS AND IMPLIED, INCLUDING FITNESS AND MERCHANTABILITY. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean, or repair products.

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**For your nearest distributor or to order, call 1-800-328-1368**

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