



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) in. (mm)	Recovered I.D. (Maximum) in. (mm)	Recovered Outer Wall Thickness (Nominal) in. (mm)	Length in.	Std. Pkg. Pieces/ Carton	Color
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

Physical

Tensile Strength	2400 PSI
Ultimate Elongation	475%
Longitudinal Change	+1, -10%
Secant Modulus	14,000 PSI
Specific Gravity	1.28
*Heat Aging	7 days @ 175°C
	Elongation 225%
*Heat Shock	No dripping,
(4 hrs. @ 225°C)	cracking, flowing

*Low Temperature Flexibility
(4 hrs. @ -55°C)

No cracking

Flammability

Self-extinguish

Electrical

Dielectric Strength	500 V/mil (60 mils)
Volume Resistivity	10 ¹⁴ ohm-cm

Chemical

Corrosive Effect	Non-corrosive
Solvent Resistance	
Tensile Strength	1500 PSI
Dielectric Strength	200 V/mil
Water Absorption	0.2%
Fungus Resistance	Non-nutrient

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.

* 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.

Limit of Liability – In no event will 3M or Seller be responsible or liable for special, incidental, or consequential losses or damages, whether based in tort or contract. Fulfillment of 3M's warranty obligations will be Customer's exclusive remedy and 3M's and Seller's limit of liability for any breach of warranty or otherwise.

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

3M Electrical Specialties Division

6801 River Place Blvd.
Austin, TX 78726-9000

© 3M March 1997

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:

[MDT-2000-48A-Black](#) [MDT0800-48A](#) [MDT-1100-48A-Black](#) [MDT-0400-48A-Black](#) [MDT-0800-48A-Red](#)