

USA - Galvanized Electrical Metallic Tubing (EMT), Steel

General

Steel Electrical Metallic Tubing is manufactured from mild steel tube. It has an accurate circular cross section, a uniform wall thickness, a defect free interior surface, and continuously welded seams. The exterior surface is thoroughly and evenly coated with zinc using an inline galvanizing process, so that metal-to-metal contact and galvanic protection against corrosion are provided. Additionally, the exterior is protected by a clear zinc chromate coating. The interior surface is coated with organic lubricating coating to reduce friction during wire insertion and retard corrosion. EMT and its associated tubular fittings are produced in nominal trade sizes from 1/2 to 4. EMT is produced in standard lengths of 10 feet (3.05 m). Bundles of finished EMT are wrapped with color coded special light weight filament tape. Black tape identifies trade sizes 1/2 and 1 1/2, Red tape identifies 3/4 and 1 1/4, and Blue tape 1. Trade sizes 2 and larger are not bundled. EMT is a UL Listed product. Each length of tubing has a label affixed containing UL Listing information and a bar code. Each length is identified with the Manufacturer's name, Logo, the letters "EMT" clearly and durably marked once per 10 foot (3.05 m) length, a U.L. listing number and the words, "Consult manufacturer for installation instructions". On July 25, 2001 the past UL requirement to embed the letters "EMT" into the surface of the tube was changed to require only durably marking the tube with the letters "EMT" at a minimum of 1/8 inch (3 mm) high.



Applications

Galvanized Steel Electrical Metallic Tubing, National Electrical Code® (NEC®) 2005 Article 358, can be installed indoors or outdoors, in dry or wet locations, exposed or concealed, in all kinds of atmospheric conditions, and in hazardous locations, when in accordance with the NEC® and providing it will not be subject to severe physical damage during and after installation and is properly protected against corrosion. Also, it provides mechanical protection for the conductors while reducing Electro-Magnetic Field (EMF) exposure and shielding against Electro-Magnetic Interference (EMI). Galvanized Steel Electrical Metallic Tubing is an approved equipment grounding conductor under the 2005 NEC® Section 250.118(4). The NEC® establishes the minimum requirements for a safe electrical installation. Because of the varied environments in which electrical equipment is installed, local amendments are often added. Always consult local codes prior to any installation.

Specifications

Galvanized Steel Electrical Metallic Tubing is manufactured in accordance with the latest edition of the following: American National Standards Institute - American National Standard for Steel Electrical Metallic Tubing (EMT), ANSI® C80.3; Underwriters Laboratories Standard for Electrical Metallic Tubing - Steel, UL 797; National Electrical Code® 2005 - Article 358 (1999 NEC® Article 348); Federal Specification - WW-C-563. The above Federal specification may still be referenced, however the federal government has canceled it and adopted the UL 767 and ANSI C80.3 standard and will no longer maintain a separate standard. Electrical Metallic Tubing was covered under WW-C-563. Additional information on the titles and designations of standards or requirements that have been used for the investigation of products in a specific category can be found in the Underwriters Laboratories Inc.®, General Information for Electrical Equipment Directory. The UL product category for EMT is FJMX.

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WEIGHTS AND DIMENSIONS

Trade Size	Metric Designator	Weight 10 Unit Lengths		Outside Diameter(1)		Inside Diameter(2)		Wall Thickness(2)	
		lb	kg	in.	mm	in.	mm	in.	mm
1/2	16	30	13.6	0.706	17.93	0.622	15.80	.042	1.07
3/4	21	46	20.9	0.922	23.42	0.824	20.93	.049	1.25
1	27	67	30.4	1.163	29.54	1.049	26.64	.057	1.45
1 1/4	35	101	45.8	1.510	38.35	1.380	35.05	.065	1.65
1 1/2	41	116	52.6	1.740	44.20	1.610	40.89	.065	1.65
2	53	148	67.1	2.197	55.80	2.067	52.50	.065	1.65
2 1/2	63	216	98.0	2.875	73.03	2.731	69.37	.072	1.83
3	78	263	119.3	3.500	88.90	3.356	85.24	.072	1.83
3 1/2	91	349	158.3	4.000	101.60	3.834	97.38	.083	2.11
4	103	393	178.3	4.500	114.30	4.334	110.08	.083	2.11

Notes : Applicable tolerances

Length: 10 Ft. (3.05 m) +/- 1/4 in. (+/- 6.35 mm)

(1) Outside Diameter: 1/2 - 2 +/- 0.005 in. (16 - 53 +/- 0.13mm), 2-1/2 +/- 0.010 in. (63 +/- 0.25 mm), 3 +/- 0.015 in. (78 +/- 0.38 mm) , 3-1/2 - 4 +/- 0.020 in. (91 - 103 +/- 0.51 mm).

(2) For information only, not a UL 797 requirement.

PACKAGING

Trade Size	Metric Designator	Bundle Tape Color	Quantity Per Bundle		Quantity Per Lift				Weight Per Lift		Volume Per Lift	
			Feet	Meters	Pieces	Bundles	Feet	Meters	Pounds	Kilograms	Cu. Ft.	Cu. m
1/2	16	Black	100	30.5	---	70	7000	2134	2100	952.6	31.7	0.9
3/4	21	Red	100	30.5	---	50	5000	1524	2300	1043.3	36.1	1.0
1	27	Blue	100	30.5	---	30	3000	914	2010	911.7	36.5	1.0
1 1/4	35	Red	50	15.2	---	40	2000	610	2020	916.3	38.2	1.1
1 1/2	41	Black	50	15.2	---	30	1500	457	1740	789.3	37.9	1.1
2	53	---	---	---	120	---	1200	366	1776	805.6	46.7	1.3
2 1/2	63	---	---	---	61	---	610	186	1318	597.7	41.5	1.2
3	78	---	---	---	51	---	510	155	1341	608.4	48.9	1.4
3 1/2	91	---	---	---	37	---	370	113	1291	585.7	48.6	1.4
4	103	---	---	---	30	---	300	91	1179	534.8	50.0	1.4

The quantity per Lift conforms to the National Electrical Manufacturers Association Standards Publication RN-2 Packaging of Master Bundles for Steel Rigid Conduit, Intermediate Metal Conduit (IMC), and Electrical Metallic Tubing.