EMT

GRC
IMC

Galvanized Rigid Conduit (GRC)

Specifications

Galvanized Rigid Conduit is manufactured in accordance with the latest edition of the following:

- American National Standards Institute - C80.1
- Underwriters Laboratories Standard - UL 6
- National Electric Code - Article 346
- Federal Specification - WW-C-581

The above Federal specification may still be referenced however, the federal government has adopted the U.L. standard and will no longer maintain a separate standard.

Description

Galvanized Rigid steel Conduit (GRC) 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 interior and exterior surfaces are thoroughly and evenly coated with zinc using the hot-dip galvanizing process, so that metal-to-metal contact and galvanic protection against corrosion are provided. An additional lubricating coating is applied to the interior surface to reduce friction during wire insertion. GRC and the associated tubular fittings are produced in nominal trade sizes from 1/2" to 6". GRC produced in standard lengths of 10 feet (3.05m), including coupling, is threaded on both ends, with a coupling applied to one end and a color-coded to size thread protector to the other. Black thread protectors represent trade sizes (1/2, 1-1/2, 2-1/2, 3-1/2), red 3/4 and 1-1/4 trade sizes, and blue 1, 2, 3, 4, 5, and 6. Threads will be 3/4" NPT, as described in American National Standard Institute ANSI B1.20.1. Additionally, each length of conduit is identified with the manufacturers name, Logo, the words "Rigid Steel Conduit", a U.L. listing number and a bar code where applicable.

Applications

Galvanized Rigid Conduit 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 NEC® Article 346. It provides excellent mechanical protection for the conductors while reducing Electro-Magnetic Field (EMF) exposure and shielding against Electro-Magnetic Interference (EMI). Galvanized Rigid Conduit is an approved equipment grounding conductor (NEC® Article 250-91b).

The National Electric Code® (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.

B-I-A Catalog No.	Trade Size Designator		Outside Diameter		Wall Thickness		B-I-A EDP #	Ref. No.	Wt./100 ft. (lbs)	Wt./m (g)	NEMA Thread	VPE Packed	
	NPS	Metric	NPS	Metric	NPS	Metric					Protector	Feet	m
GRC 1/2	1/2	16	0.8	20.3	0.104	2.64	112992	05438	82	1241	Black	100	30
GRC 3/4	3/4	21	1.0	25.4	0.107	2.72	112993	05439	109	1650	Red	50	15
GRC 1	1	27	1.3	33.0	0.126	3.20	112994	05440	161	2436	Blue	50	15
GRC 1 1/4	1 1/4	35	1.7	43.2	0.133	3.38	112995	05441	218	3299	Red	10	3
GRC 1 1/2	1 1/2	41	1.9	48.3	0.138	3.51	112996	05442	263	3980	Black	10	3
GRC 2	2	53	2.4	61.0	0.146	3.71	112997	05443	350	5297	Blue	10	3
GRC 2 1/2	2 1/2	63	2.9	73.7	0.193	4.90	112998	05444	559	8460	Black	10	3
GRC 3	3	78	3.5	88.9	0.205	5.21	113000	05445	727	11002	Blue	10	3
GRC 3 1/2	3 1/2	91	4.0	101.6	0.215	5.46	113001	05446	880	13317	Black	10	3
GRC 4	4	103	4.5	114.3	0.225	5.72	113002	05447	1030	15587	Blue	10	3
GRC 5	5	129	5.6	142.2	0.245	6.22	113003	05448	1400	21187	Blue	10	3
GRC 6	6	155	6.6	167.6	0.266	6.76	113004	05449	1840	27845	Blue	10	3

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Intermediate Metal Conduit (IMC)

Specifications

Intermediate Metal Conduit is manufactured in accordance with the latest edition of the following:

- American National Standards Institute - C80.6
- Underwriters Laboratories Standard - UL 1242
- National Electric Code - Article 345
- Federal Specifcation - WW-C-581

The above Federal specification may still be referenced however, the federal government has adopted the U.L. standard and will no longer maintain a separate standard.

Description

Intermediate Metal Conduit (IMC) is made from high strength flat steel that is cold-formed and electrically welded into a uniform tube. IMC is 25% lighter in weight than heavy wall conduit (Galvanized Rigid Steel Conduit), but is still capable of being threaded. IMC, produced in standard lengths of 10 feet (3.05m), including coupling, is threaded on both ends, with a coupling applied to one end and a color-coded to size thread protector to the other. Yellow thread protectors represent trade sizes 1/2, 1-1/2, 2-1/2, 3-1/2, green 3/4 and 1-1/4 , and orange 1, 2, 3, and 4. The exterior surface is thoroughly coated with zinc applied directly to the metal so that galvanic protection against corrosion is achieved. The interior surface is protected by a specially formulated lubricating coating to permit easier wire pulling. Each length of IMC is additionally bar coded where applicable and UL labeled.

Applications

Intermediate Metal Conduit provides protection for electrical conductors and cables against physical damage. It can be used on jobs where the full thickness and protection of Rigid steel Conduit is not needed. IMC can be used indoors or outdoors, and underground beneath concrete or fill. It can be used in high voltage applications (over 600 volts). IMC is recognized by NEC® Article 250-91b as an equipment grounding conductor.

The National Electric Code® (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.

B-I-A Catalog No.	Trade Size Designator		Outside Diameter		Wall Thickness		B-I-A EDP #	Ref. No.	Wt./100 ft. (lbs)	Wt./m (g)	NEMA Thread	VPE Packed	
	NPS	Metric	NPS	Metric	NPS	Metric					Protector	Feet	m
IMC 1/2	1/2	16	0.8	20.3	0.078	1.98	113005	05487	62	938	Yellow	100	30
IMC 3/4	3/4	21	1.0	25.4	0.083	2.11	113006	05488	84	1271	Green	50	15
IMC 1	1	27	1.3	33.0	0.093	2.36	113007	05489	119	1801	Orange	50	15
IMC 1 1/4	1 1/4	35	1.6	40.6	0.095	2.41	113008	05490	158	2391	Green	10	3
IMC 1 1/2	1 1/2	41	1.9	48.3	0.100	2.54	113009	05491	194	2936	Yellow	10	3
IMC 2	2	53	2.4	61.0	0.105	2.67	113010	05492	256	3874	Orange	10	3
IMC 2 1/2	2 1/2	63	2.9	73.7	0.150	3.81	113011	05493	441	6674	Yellow	10	3
IMC 3	3	78	3.5	88.9	0.150	3.81	113012	05494	543	8217	Orange	10	3
IMC 3 1/2	3 1/2	91	4.0	101.6	0.150	3.81	113013	05495	629	9519	Yellow	10	3
IMC 4	4	103	4.5	114.3	0.150	3.81	113014	05496	700	10593	Orange	10	3

EMT

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IMC

Electrical Metallic Tubing (EMT)

Specifications

Electric Metallic Tubing is manufactured in accordance with the latest edition of the following:

- American National Standards Institute - C80.3
- Underwriters Laboratories Standard - UL 797
- National Electric Code - Article 348
- Federal Specification - WW-C-583A

The above Federal specification may still be referenced however, the federal government has adopted the U.L. standard and will no longer maintain a separate standard.

Description

EMT is sometimes referred to as "thin-wall" conduit because its wall is much thinner when compared with rigid conduit of the same nominal size. The thinner wall translates into a product 40% lighter than rigid conduit and threadless. EMT is galvanized on the exterior with a specially formulated lubricating coating applied to the interior to permit easier wire pulling. EMT is 10 feet (3.05m) long, and available in trade sizes from 1/2 to 4. Each length is marked with the letters "EMT" indented into the outer surface of the tube. Each length of EMT is additionally bar coded where applicable and UL labeled.

Applications

Electric Metallic Tubing can be used for both exposed and concealed work providing it will not be subject to severe physical damage and is properly protected against corrosion. It is most commonly used above ground for lighting circuits, control lines, and other low-power applications. Industry standards permit the use of EMT for installation of conductors in circuits rated below and above 600 volts, nominal, and in accordance with Article 348 of the National Electric Code. EMT is recognized by NEC® Article 250-91b as an equipment grounding conductor.

The National Electric Code® (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.

B-I-A Catalog No.	Trade Size Designator		Outside Diameter		Wall Thickness		B-I-A EDP #	Ref. No.	Wt./100 ft. (lbs)	Wt./m (g)	NEMA Thread Protector	VPE Packed	
	NPS	Metric	NPS	Metric	NPS	Metric						Feet	m
EMT 1/2	1/2	16	0.706	17.9	0.042	1.07	102516	05500	30	454	---	100	30
EMT 3/4	3/4	21	0.922	23.4	0.049	1.24	102518	05501	46	696	---	100	30
EMT 1	1	27	1.163	29.5	0.057	1.45	102513	05502	67	1014	---	100	30
EMT 1 1/4	1 1/4	35	1.510	38.4	0.065	1.65	102515	05503	101	1528	---	50	15
EMT 1 1/2	1 1/2	41	1.740	44.2	0.065	1.65	102514	05504	116	1755	---	50	15
EMT 2	2	53	2.197	55.8	0.065	1.65	102517	05505	148	2240	---	30	9
EMT 2 1/2	2 1/2	63	2.875	73.0	0.072	1.83	113015	05506	216	3269	---	10	3
EMT 3	3	78	3.500	88.9	0.072	1.83	113016	05507	263	3980	---	10	3
EMT 3 1/2	3 1/2	91	4.000	101.6	0.083	2.11	113017	05508	349	5282	---	10	3
EMT 4	4	103	4.500	114.3	0.083	2.11	113018	05509	393	5947	---	10	3

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Weitere Typen auf Anfrage. Änderungen vorbehalten. Abmessungen in mm.
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03.07.1998