

Republic Wire Inc.

began operations in Cincinnati, Ohio in January of 1982. Ron Rosenbeck, owner and president of RWI, has been in the copper industry since 1973. Republic Wire originally manufactured top-quality bare copper wire and became known as “bare copper specialists.” We now offer a more extensive package to better serve our customers needs. These products include tinned copper wire, insulated building wire (THHN, THW, XHHW, USE, TFFN and TW), polyweatherproof wire and tracer wire. Our product list is designed to service the electrical wholesale distributor, utility distributors, RUS, investor-owned utilities and municipalities nationwide. We not only offer products that are top-quality, but have exceptional service and an extensive inventory to ensure our customers the products they need with the speed, accuracy and fill rate they deserve. We operate in a 200,000 square foot, modern production facility. Our *TEAM* concept at RWI gives us an added advantage - *to assure quality products and service to all of our customers.*



Our Raw Materials Make A Quality Difference

Our bare copper conductors are made from pure electrolytic-grade copper and are manufactured in compliance with ASTM standards B-8 (concentric lay), B-258 (solids) and in tempers meeting ASTM B-1, B-2 and B-3. Our bare wire is available from 14 through 1000 MCM and tempers of *soft drawn, medium hard drawn* and *hard drawn*. Republic Wire also supplies *tinned copper* in sizes 8 through 500 MCM. Our manufacturing facility has the ability to package our products in spools, reels, coils and master reels.



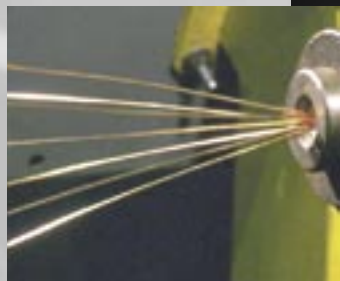
Diversity Of Products Meets Customer Needs

Our company supplies insulated copper products such as *THHN* (sizes 14-750), *THW* (sizes 14-500), *XHHW* (sizes 14-600), *USE* (sizes 14-600), *TFFN* (sizes 16 and 18 Strand), *Polyweatherproof* (sizes 14-2) and *TW*. All of Republic Wire's insulated products are UL approved according to present industry standards and can be purchased on 500' spools, 1,000'RL, 2,500'RL or master reels.

Republic Wire has inventory to fill all your needs and our advanced computerized systems allow us to continually anticipate customer demands, therefore maintaining sufficient product inventory.



State-of-the-Art Equipment Keeps Us Moving Ahead



Our highly trained technical staff, along with an efficient plant design staffed with skilled workers, creates a highly motivated work force. This work force is dedicated to meeting individual customer needs while maintaining low cost production.





The RWI Team (from left to right) front row: Steve Baker, Extrusion Department Manager; Ron Rosenbeck, CEO/President; Heidi Gillespie, Receptionist; Heather Rosenbeck-Yelton, Sales; Angela Fishwick, Data Entry; Lisa Shepherd, Accounts Receivable; Kirk Spasov, Bare Copper Department Manager; (back row) Jeremy Rosenbeck, National Sales Manager; Scott Emmons, Daily Operations Manager; Mark Huelsebusch, CFO/Production Manager; Gina Strickland, Executive Assistant; Steve Yelton, Inside Sales Manager; Emily Wollenhaupt, Sales

Our Dedicated Staff Is Ready To Help With Your Order



Republic Wire's manufacturing facility has 24-hour shipping and receiving. We believe that our product inventory is one of the many reasons we are able to fill each individual order with the speed, accuracy and the fill rate our customers expect. Republic Wire has a national sales force in most major cities throughout the United States. These ideals are critical to expanding the market share for our products and ensuring that every customer is satisfied.

See All The Great Places Where Our Wire is Used

Republic Wire, Inc.'s customer base consists of a wide range of commercial and industrial customers. Our variety of customers has given us the opportunity to light up stadiums, offices, production facilities and warehouses across the country and provide ground wire for places such as the Kennedy Space Center and Disney World.



Customer Satisfaction And Quality Are #1

We invite you to visit our main office in Cincinnati, Ohio. Our facility has expanded to 200,000 square feet and shows that dedication to our customers and producing the highest quality product has enabled us to grow.



**REPUBLIC
WIRE
INC.**

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*Your Bare Copper Specialist
And More!*

BUILDING WIRE

THHN/THWN - 14 - 10 Solid, 14 - 750 MCM Stranded
Colors available through 600, call for details.
TFFN - Sizes 16 & 18 Stranded
THW - 14 - 10 Solid, 14 - 500 MCM Stranded
MTW - 14 - 500 MCM Stranded
TW - 14 thru 8 Solid
XHHW - 14 - 10 Solid, 14 - 600 MCM Stranded
USE - 14 - 10 Solid, 14 - 600 MCM Stranded

BARE COPPER WIRE

SIZES: 14 thru 2 Solid
14 thru 1000 MCM Stranded
Soft Drawn, Medium Hard & Hard Drawn (ASTM B-3, B-2, & B-1 respective)
Reels, Spools or Coils

TINNED COPPER WIRE

ASTM B-33
Sizes - 8 thru 2 Solid
8 thru 500 MCM Stranded
Reels, Spools or Coils

POLYWEATHERPROOF WIRE

ANSI/ICEA S-70-547-2000
Sizes - 14 thru 2 Solid
14 thru 2 Stranded
Soft Drawn (ASTM B-3)
Reels or Coils
Riser Wire (110 MIL Insulation)

Republic Wire, Inc. is dedicated to providing quality products and the Best Service in the industry.



5525 Union Centre Drive • West Chester, Ohio 45069 • (513) 860-1800 • Fax: (513) 860-8818

BARE COPPER WIRE

SIZE	NO. OF STRAND	STANDARD PUT UP	WEIGHT PER 1000 FT.
14	SOLID	2000 FT. SPOOL	12.40
12	SOLID	1000 FT. SPOOL	19.80
10	SOLID	1000 FT. SPOOL	31.43
8	SOLID	500 FT. SPOOL	49.98
6	SOLID	315 FT. SPOOL	79.44
4	SOLID	200 FT. SPOOL	126.30
2	SOLID	125 FT. SPOOL	200.90
14	7/W OR 19/W	2000 FT. SPOOL	13.00
12	7/W OR 19/W	1000 FT. SPOOL	20.20
10	7/W OR 19/W	1000 FT. SPOOL	33.00
8	7/W OR 19/W	500 FT. SPOOL	50.98
6	7/W OR 19/W	315 FT. SPOOL	81.02
4	7/W OR 19/W	200 FT. SPOOL	128.90
3	7/W OR 19/W	CALL	167.00
2	7/W OR 19/W	125 FT. SPOOL	204.90
1	7/W OR 19/W	1000 FT. NRR	258.20
1/0	7/W OR 19/W	500 or 1000 FT. NRR	326.00
2/0	7/W OR 19/W	500 or 1000 FT. NRR	411.00
3/0	7/W OR 19/W	500 or 1000 FT. NRR	518.00
4/0	7/W OR 19/W	500 or 1000 FT. NRR	653.30
250	37/W OR 19/W	1000 FT. NRR	771.90
350	37/W OR 19/W	1000 FT. NRR	1081.00
500	37/W OR 19/W	1000 FT. NRR	1544.00
750	61/W	1000 FT. NRR	2316.00
1000	61/W	1000 FT. NRR	3088.00

- Medium Hard and Hard Drawn Copper Pricing and availability upon request.
- Optional put ups may be available upon request.
- Long Length reels and coils available on all sizes listed above.
- Freight: F.O.B. Destination: Agent Stock - 2000 lbs. or more bare / 5000 lbs. or more THHN, XHHW, USE
Factory - see terms & conditions (page 24)



BARE WIRE

SOLID ROUND

SOLID BARE COPPER CONDUCTORS

ASTM Standards B1, B2, B3, B258

SIZE (AWG)	DIAMETER (MILS)	AREA (CIRCULAR)	NET WEIGHT (LBS./1000')	APPROX. RESISTANCE @ 68°F (20°C) OHMS Per 1,000 Ft. SOFT (ANNEALED)
2	257.6	66,360	200.90	0.15630
4	204.3	41,740	126.30	0.24850
6	162.0	26,240	79.44	0.39520
8	128.5	16,510	49.98	0.62810
10	101.9	10,380	31.43	0.99910
12	80.8	6,530	19.80	1.59000
14	64.1	4,110	12.40	2.52000

The above data is approximate and subject to normal manufacturing tolerances.

APPLICATION NOTES

Some typical applications of bare round copper wire are for grounding wires, conductors for building wire, telecommunications cables and for subsequent fabrication into metallic coated and stranded conductors, redrawing to smaller sizes and a multitude of mechanical forming operations.



BARE WIRE

7-WIRE CONCENTRIC-LAY

STRANDED BARE COPPER CONDUCTORS

ASTM Standards B1, B2, B3, B8

SIZE (AWG)	NUMBER & WIRE SIZE (INCHES)	AREA (CIRCULAR MILS)	APPROX. DIAMETER (INCHES)	APPROX. WEIGHT (LBS./1000')	APPROX. RESISTANCE @ 68°F (20°C) OHMS Per 1,000 Ft. UNCOATED
4/0	7 X .1739	211,688	0.522	653.3	0.04997
3/0	7 X .1548	167,741	0.464	518.0	0.06306
2/0	7 X .1379	133,114	0.414	411.0	0.07945
1/0	7 X .1228	105,558	0.368	326.0	0.10020
1	7 X .1093	83,625	0.328	258.2	0.12650
2	7 X .0974	66,407	0.292	204.9	0.15930
3	7 X .0868	52,739	0.260	167.0	0.20060
4	7 X .0772	41,719	0.232	128.9	0.25360
6	7 X .0612	26,218	0.184	81.02	0.40350
8	7 X .0486	16,533	0.146	50.98	0.63980

The above data is approximate and subject to normal manufacturing tolerances.

APPLICATION NOTES

Stranded conductor is normally used in electrical applications where some degree of flexing is encountered either in installation or service. An application with a greater amount of expected service flexing should use a conductor with a larger number of wires and smaller individual wire diameter to make up a given conductor size as compared to a lesser flexing application.

Some of the stranded conductor types manufactured by Republic Wire, Inc. are:

- **CONCENTRIC:** A conductor constructed with a central wire surrounded by one or more layers of helically laid wires. The direction of lay is reversed in successive layers and generally with an increase in length for successive layers.
- **ASTM standards provide for five classes of concentric strand:**
Class AA is the coarsest stranding, and Class D the finest. Concentric conductors are available only in the specific numbers of wires necessary to make up the construction in concentric layers. These numbers are 7, 19, 37, and 61. Larger wire counts are possible, but are not in normal use and are not covered by these standards.



BARE WIRE

19-WIRE CONCENTRIC-LAY

STRANDED BARE COPPER CONDUCTORS

ASTM Standards B1, B2, B3, B8, B787 (8GA - 4/0)

SIZE (AWG)	NUMBER & WIRE SIZE (INCHES)	AREA (CIRCULAR MILS)	APPROX. DIAMETER (INCHES)	APPROX. WEIGHT (LBS./1000')	APPROX. RESISTANCE @ 68°F (20°C) OHMS Per 1,000 Ft. UNCOATED
350 MCM	19 X .1357	349,875	0.679	1080.0	0.03023
300 MCM	19 X .1257	300,209	0.629	926.9	0.03523
250 MCM	19 X .1147	249,966	0.574	771.9	0.04231
4/0 AWG	19 X .1055	211,475	0.528	653.3	0.05002
3/0 AWG	19 X .0940	167,884	0.470	518.0	0.06301
2/0 AWG	19 X .0837	133,108	0.419	411.0	0.07947
1/0 AWG	19 X .0745	105,455	0.373	326.0	0.10030
2 AWG	19 X .0591	66,360	0.292	204.9	0.1594
3 AWG	19 X .0526	52,620	0.260	167.0	0.2010
4 AWG	19 X .0469	41,740	0.232	128.9	0.2540
6 AWG	19 X .0372	26,240	0.184	81.02	0.4030
8 AWG	19 X .0295	18,510	0.146	50.98	0.6408

The above data is approximate and subject to normal manufacturing tolerances.

APPLICATION NOTES

Stranded conductor is normally used in electrical applications where some degree of flexing is encountered either in installation or service. An application with a greater amount of expected service flexing should use a conductor with a larger number of wires and smaller individual wire diameter to make up a given conductor size as compared to a lesser flexing application.

Some of the stranded conductor types manufactured by Republic Wire, Inc. are:

- **CONCENTRIC:** A conductor constructed with a central wire surrounded by one or more layers of helically laid wires.
- **ASTM standards provide for five classes of concentric strand:**
Class AA is the coarsest stranding, and Class D the finest. Concentric conductors are available only in the specific numbers of wires necessary to make up the construction in concentric layers. These numbers are 7, 19, 37, and 61. Larger wire counts are possible, but are not in normal use and are not covered by the standards.



BARE WIRE

37-WIRE CONCENTRIC-LAY

STRANDED BARE COPPER CONDUCTORS

ASTM Standards B1, B2, B3, B8

SIZE (AWG)	NUMBER & WIRE SIZES (INCHES)	AREA (CIRCULAR MILS)	APPROX. DIAMETER (INCHES)	APPROX. WEIGHT (LBS./1000')	APPROX. RESISTANCE @ 68°F (20°C) OHMS Per 1,000 Ft. UNCOATED
500 MCM	37 X .1162	500,000	0.813	1544.0	0.02116
400 MCM	37 X .1040	400,000	0.720	1235.2	0.02644
350 MCM	37 X .0973	350,000	0.679	1080.0	0.03023
300 MCM	37 X .0900	300,000	0.629	926.9	0.03523
250 MCM	37 X .0822	250,000	0.574	771.9	0.04231
4/0 AWG	37 X .0756	211,600	0.528	653.3	0.05002

This above data is approximate and subject to normal manufacturing tolerances.

APPLICATION NOTES

Stranded conductor is normally used in electrical applications where some degree of flexing is encountered either in installation or service. An application with a greater amount of expected service flexing should use a conductor with a larger number of wires and smaller individual wire diameter to make up a given conductor size as compared to a lesser flexing application.

Some of the stranded conductor types manufactured by Republic Wire, Inc. are:

- **CONCENTRIC:** A conductor constructed with a central wire surrounded by one or more layers of helically laid wires. The direction of lay is reversed in successive layers and generally with an increase in lay length for successive layers.
- **ASTM standards provide for five classes of concentric strand:**
Class AA is the coarsest stranding, and Class D the finest. Concentric conductors are available only in the specific numbers of wires necessary to make up the construction in concentric layers. These numbers are 7, 19, 37, and 61. Larger wire counts are possible, but are not in normal use and are not covered by the standards.



TINNED COPPER WIRE

TINNED BARE COPPER CONDUCTORS

ASTM Standards B3, B8, B33

SIZE	NO. OF STRAND	WEIGHT PER 1000 FT.
8	SOLID	49.98
6	SOLID	79.44
4	SOLID	126.30
2	SOLID	200.90
8	7/W	50.98
6	7/W	81.02
4	7/W	128.90
2	7/W	204.90
1/0	19/W	326.00
2/0	19/W	411.00
3/0	19/W	518.00
4/0	19/W	653.30
250	37/W	771.90
350	37/W	1081.00
500	37/W	1544.00

Long length reels and coils available on all sizes listed above.



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TFFN COPPER CONDUCTOR

Type TFFN (stranded conductor) is flame-retardant PVC-insulated with nylon jacketing that has excellent resistance to abrasion, chemicals, gas and oil.

SIZES: 16 & 18

SPECIFICATIONS: VW-1 Rated. U.L. listed as 90°C Fixture Wire, 105°C Appliance Wiring Material (75°C exposed to oil) and 90°C MTW 600 Volt Style No. 1408-1316
Lead Free ROHS Compliant

Use: For machine tools, lighting fixtures and appliance applications.

SIZE (AWG)	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS		APPROX. O. D. INCHES	CURRENT CARRYING CAPACITY (AMPERES)	APPROX. WEIGHT PER 1000 FT. IN POUNDS
		PVC	NYLON			
18	16	.015	.004	0.090	6	8
16	26	.015	.004	0.102	8	11



THHN-THWN COPPER CONDUCTOR

STANDARDS

Underwriters' Laboratories UL 83 • Federal Specification JC-30A • Gasoline and Oil Resistant II (UL) • NEMA WC 70/ICEA S-95-658

SIZE (AWG)	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS		APPROX. O. D. INCHES	AMPACITY (1)		APPROX. WEIGHT PER 1000 FT. IN POUNDS
		PVC	Nylon		75°C	90°C	
14	SOLID	15	4	.11	+20	+25	16
12	SOLID	15	4	.13	+25	+30	24
10	SOLID	20	4	.16	+30	+40	37
14	19	15	4	.11	+20	+25	17
12	19	15	4	.13	+25	+30	25
10	19	20	4	.16	+35	+35	39
8	19	30	5	.21	50	55	65
6	19	30	5	.27	65	75	98
4	19	40	6	.34	85	95	157
3	19	40	6	.36	100	110	191
2	19	40	6	.40	115	130	240
1	19	50	7	.46	130	150	305
1/0	19	50	7	.50	150	170	379
2/0	19	50	7	.55	175	195	470
3/0	19	50	7	.60	200	225	584
4/0	19	50	7	.66	230	260	728
250	37	60	8	.73	255	290	866
300	37	60	8	.78	285	320	1030
350	37	60	8	.83	310	350	1193
400	37	60	8	.88	335	380	1354
500	37	60	8	.97	380	430	1679
600MCM	61	70	9	1.07	420	475	2013
750MCM	61	70	9	1.14	475	535	2498



(1) Based on not more than 3 conductors in Raceway or cable or direct burial (30°C, 86°F Ambient per NEC). 75°C conductor temperature rating.

1. +The overcurrent protection for conductor types marked with (+) shall not exceed 15 AMPS for 14 AWG, and 20 AMPS for 12 AWG per the NEC-84 Table 310-16.

Stock colors and packaging information available upon request.

SPECIFICATIONS

Sunlight Resistance, VW-1, THWN-2 (All Sizes and Colors), CT USE (1/0 and larger), CUL-Type T90, Lead Free - ROHS Compliant

APPLICATION NOTES

Type THHN-THWN Building Wire is intended for general purpose applications and may be installed in conduit, duct, or other recognized raceways in wet (60°C oil/75°C water) or dry (90°C) locations. For both new work and rewiring applications, the smaller diameter of the wire permits additional circuits or larger conductors to be installed in the conduit without exceeding maximum fill limitations. The insulation is a high quality, heat and moisture resistant polyvinyl chloride compound over which a heat and light stabilized nylon jacket is tightly applied.



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SEQUENTIAL FOOT MARKINGS

1. Assures customers that they are getting the exact amount of footage they paid for on each reel.
2. Cutting wire becomes easy because each foot is marked. Prevents shortages on jobs eliminating claims, which can be costly to the distributor.
3. Ensures the accuracy of the footage when cutting for jobs when a meter is not calibrated. Saves distributor money.
4. If reel is unmarked after cutting, distributor will know footage remaining on reel.
5. Prevents THEFT. If wire is missing from reel, it will alert warehouse manager of problems.
6. Helps calibrate meter for distributor.

REPUBLIC WIRE 350 MCM THHN 600V 335FT 25 MAR 2002 REPUBLIC WIRE 350 MCM THHN 600V 336FT 25 MAR 2002 REPUBLIC

WIRE 350 MCM THHN 600V 337FT 25 MAR 2002 REPUBLIC WIRE 350 MCM THHN 600V 338FT 25 MAR 2002 REPUBLIC WIRE 350

MCM THHN 600V 339FT 25 MAR 2002 REPUBLIC WIRE 350 MCM THHN 600V 340FT 25 MAR 2002 REPUBLIC WIRE 350 MCM THHN



THHN COLORS

The following sizes of THHN are available in the following colors.

SIZE	BLACK	GREEN	WHITE	RED	BLUE	ORANGE	BROWN	YELLOW	PURPLE	GRAY
14 Solid	X	X	X	X	X	X	X	X	X	X
12 Solid	X	X	X	X	X	X	X	X	X	X
10 Solid	X	X	X	X	X	X	X	X	X	X
18 Str.	X	X	X	X	X	X	X	X	X	X
16 Str.	X	X	X	X	X	X	X	X	X	X
14 Str.	X	X	X	X	X	X	X	X	X	X
12 Str.	X	X	X	X	X	X	X	X	X	X
10 Str.	X	X	X	X	X	X	X	X	X	X
8 Str.	X	X	X	X	X	X	X	X		X
6 Str.	X	X	X	X	X	X	X	X		X
4 Str.	X	X	X	X	X	X	X	X		X
3 Str.	X	X	X	X	X	X	X	X		X
2 Str.	X	X	X	X	X	X	X	X		X
1 Str.	X	X	X	X	X	X	X	X		X
1/0	X	X	X	X	X	X	X	X		X
2/0	X	X	X	X	X	X	X	X		X
3/0	X	X	X	X	X	X	X	X		X
4/0	X	X	X	X	X	X	X	X		X
250 MCM	X	X	X	X	X	X	X	X		X
350 MCM	X	X	X	X	X	X	X	X		X
500 MCM	X	X	X	X	X	X	X	X		X
600 MCM	X	X	X	X	X	X	X	X		X
750 MCM	X									

CUTTING, STRIPING AND PARALLELING ARE AVAILABLE UPON REQUEST.

SEQUENTIAL FOOT MARKING ON SIZES 1/0 AND LARGER.

MCM COLORS MADE TO ORDER.

UL APPROVED FOR:

1. SUNLIGHT RESISTANCE (ALL SIZES AND COLORS)
2. VW-1
3. CT USE (1/0 AND LARGER) (ALL COLORS)
4. THWN-2 (ALL SIZES AND COLORS)
5. LEAD FREE - ROHS COMPLIANT



XHHW-2 COPPER CONDUCTOR - 40C

STANDARDS

Underwriter's Laboratories UL 44 • Canadian Standard C22.2 No. 38 • Insulated Cable Engineers Association ICEA S-95-658
Institute of Electrical and Electronics Engineers IEEE 1202 • Federal Specification A-A-59544 • NEMA Publication No. WC-70 •
Gas and Oil Resistant II (UL)

SIZE (AWG)	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS XLP	APPROX. O. D. INCHES	ALLOWABLE AMPACITIES*			APPROX. WEIGHT PER 1000 FT. IN POUNDS
				60C	75C	90C	
14	19	.030	.131	15	15	15	18
12	19	.030	.149	20	20	20	25
10	19	.030	.172	30	30	30	40
8	19	.045	.236	15	50	55	67
6	19	.045	.274	20	65	75	100
4	19	.045	.322	30	85	95	150
3	19	.045	.350	50	100	110	205
2	19	.045	.382	65	115	130	230
1	19	.055	.431	85	130	150	291
1/0	19	.055	.470	100	150	170	362
2/0	19	.055	.514	115	175	195	445
3/0	19	.055	.564	130	200	225	564
4/0	19	.055	.620	150	230	260	707
250	37	.065	.672	175	255	290	836
300	37	.065	.724	200	285	320	996
350	37	.065	.771	230	310	350	1155
400	37	.065	.815	255	335	380	1315
500	37	.065	.896	285	380	430	1632
600	61	.080	1.026	310	420	475	1950

*Ampacity shown above is per the 2002 National Electrical Code. The above data is approximate and subject to normal manufacturing tolerances.

CONDUCTORS:	Stranded, uncoated bare copper per ASTM B787 and ASTM B8.
CONDUCTORS INSULATION:	Cross-Linked Polyethylene (XLP) insulation per UL-44.
SPECIFICATIONS:	Sunlight Resistant (6 GA and Larger). VW-1 available in all sizes. Lead Free - ROHS Compliant. CT USE (1/0 and larger) CUL-TYPE RW90

APPLICATION NOTES

Type XHHW-2 conductors are primarily used in conduit or other recognized raceways for services, feeders, and branch circuit wiring, as specified in the National Electric Code (NEC). XHHW-2 conductors may be used in wet or dry locations at temperatures not to exceed 90°C. XHHW-2 conductors are rated for 600 volts. Insulation rated for use to -40°C (UL).



USE-2, RHH, RHW-2 COPPER CONDUCTOR - 40C

STANDARDS

Underwriter's Laboratories - Standard UL 44, UL 854 • Federal Specification A-A-59544
Insulated Cable Engineers Association ICEA S-66-524 • NEMA Publication No. WC-7

SIZE (AWG)	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS XLP	APPROX. O. D. INCHES	ALLOWABLE AMPACITIES*			APPROX. WEIGHT PER 1000 FT. IN POUNDS
				60C	75C	90C	
14	19	.045	.160	15	15	15	21
12	19	.045	.179	20	20	20	30
10	19	.045	.202	30	30	30	43
8	19	.060	.266	40	50	55	72
6	19	.060	.304	55	65	75	106
4	19	.060	.352	70	85	95	157
3	19	.060	.380	85	100	110	201
2	19	.060	.412	95	115	130	237
1	19	.080	.481	110	130	150	309
1/0	19	.080	.520	125	150	170	382
2/0	19	.080	.564	145	175	195	471
3/0	19	.080	.614	165	200	225	587
4/0	19	.080	.670	195	230	260	729
250	37	.095	.732	215	255	290	861
300	37	.095	.784	240	285	320	1029
350	37	.095	.831	260	310	350	1193
400	37	.095	.875	280	335	380	1354
500	37	.095	.956	320	380	430	1676
600	61	.110	1.086	355	420	475	2012

*Ampacity shown above is per the 2002 National Electrical Code. The above data is approximate and subject to normal manufacturing tolerances.

CONDUCTORS: Stranded conductors uncoated copper per ASTM B787 and ASTM B8.
CONDUCTORS INSULATION: Cross-Linked Polyethylene (XLP) insulation per UL-854.
SPECIFICATIONS: Sunlight Resistant (6 GA and larger) VW-1 available in all sizes.
 Lead Free - ROHS Compliant

APPLICATION NOTES

Type USE-2 or RHH or RHW-2 copper conductors are suitable for use in conduit and raceways installed underground in conduit, in wet locations, and where condensation and moisture accumulations within the conduit do not exceed 90°C. When used as RHH or RHW-2, conductor temperatures shall not exceed 90°C in wet or dry locations. Voltage rating for USE-2 or RHH or RHW-2 conductors is 600 volts. Insulation rated for use to -40°C (UL).



THW COPPER CONDUCTOR

STANDARDS

Underwriters' Laboratories UL 83 • Federal Specification JC-30A • Oil Resistant II (UL) • NEMA WC 70/ICEA S-95-658

SIZE	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS	APPROX. O. D. INCHES	AMPACITY**	APPROX. WEIGHT PER 1000 FT. IN POUNDS
14	1	45	.16	15	22
12	1	45	.18	20	31
10	1	45	.20	30	45
14	7	45	.17	15	24
12	7	45	.19	20	33
10	7	45	.21	30	48
8	7	60	.27	50	77
6	7	60	.31	65	112
4	7	60	.36	85	167
3	7	60	.39	100	202
2	7	60	.42	115	252
1	19	80	.49	130	324
1/0	19	80	.53	150	397
2/0	19	80	.58	175	491
3/0	19	80	.63	200	608
4/0	19	80	.69	230	753
250 MCM	37	95	.77	255	896
300 MCM	37	95	.82	285	1060
350 MCM	37	95	.87	310	1227
400 MCM	37	95	.95	335	1391
500 MCM	37	95	1.01	380	1715



**Not more than 3 conductors in raceway (30°C, 86°F Ambient) per NEC. Table 310-16.

For 3 wire single-phase residential services the allowable ampacity shall be for sizes #4-100 AMP, #3-110 AMP, #2-125 AMP, #1-150 AMP, #1/0-175 AMP, #2/0-200 AMP.

Stock colors and packaging information available upon request.

NOTE: 14 through 10 must meet minimum quantities. Call for details.

Lead Free - ROHS Compliant

APPLICATION NOTES

Type THW Building Wire is constructed with a heat, moisture and flame retardant polyvinyl chloride compound which is designed for general purpose wiring in residential, commercial and industrial installations. Type THW wires are designed to operate at conductor temperatures of 90°C for dry locations, 75°C for wet locations. The smaller diameter of these wires and cables makes them particularly suitable for rewiring of existing systems. Specifically recommended also for industrial installations where exceptional resistance to heat and corrosive atmospheres are needed, such as chemical plants, oil refineries, paper mills, etc.



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TW COPPER CONDUCTOR

STANDARDS

Underwriters' Laboratories Standard UL 83
 Federal Specification JC-30A
 NEMA WC70/ICEA S-95-658

SIZE (AWG)	NUMBER OF STRANDS	INSULATION THICKNESS IN MILS	APPROX. O. D. INCHES	AMPACITY (1)	APPROX. WEIGHT PER 1000 FT. IN POUNDS
14	SOLID	30	.13	+15	18
12	SOLID	30	.15	+20	27
10	SOLID	30	.17	30	40
8	SOLID	45	.23	50	65

(1) Based on not more than 3 conductors in a raceway or cable (30°C, 86°F Ambient per NEC). 60°C conductor temperature rating.

- +The overcurrent protection for conductor types marked with (+) shall not exceed 15 AMPS for 14 AWG, and 20 AMPS for 12 AWG per the NEC-84 Table 310-16.

Stock colors and packaging information available upon request.

APPLICATION NOTES

Type TW insulated wires are used for normal power applications up to 600 volts. They can be used for installation in conduit and ducts, at temperatures down to -10°C (+14°F). Type TW insulated wire are designed to operate at conductor temperatures of 60°C (140°F) in wet and dry locations. Their small diameters make them especially advantageous for rewiring as well as new installations. Type TW Building Wires are insulated with polyvinyl-chloride thermoplastic compounds that are especially designed to provide a tough flexible wire that provides excellent dielectric strength and flame resistance.



COVERED COPPER OVERHEAD CONDUCTORS

WEATHERPROOF HMW POLYETHYLENE

PHYSICAL PROPERTIES - SOLID

SIZE	INSULATION THICKNESS	WEIGHT PER 1000 FT. IN POUNDS
14	2/64"	16.0
12	2/64"	24.0
10	2/64"	36.5
8	2/64"	56.0
6	2/64"	87.0
4	2/64"	136.0
3	3/64"	176.0
2	3/64"	219.0

PHYSICAL PROPERTIES - STRANDED

SIZE	INSULATION THICKNESS	WEIGHT PER 1000 FT. IN POUNDS
14-19/W	2/64"	17
12-19/W	2/64"	31.4
10-19/W	2/64"	38
8-19/W	2/64"	58
6-7/W	2/64"	91.5
4-7/W	2/64"	143.0
2-7/W	3/64"	230.0

APPLICABLE SPECIFICATIONS

ASTM B-1	Hard-Drawn Copper Wire
ASTM B-2	Medium-Hard Drawn Copper Wire
ASTM B-3	Soft or Annealed Copper Wire
ASTM B787	19 Wire Construction
ASTM B-8	Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
ASTM D-1248	Polyethylene Plastics, Molding and Extrusion Materials
ANSI/ICEA S-70-547-2000	Specifications for Weather-Resistant Polyolefin-Covered Wire & Cable

*Price in effect at time of order acceptance. • Freight F.O.B. Destination on 5,000 lbs. or more. • Net Terms



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TRACER WIRE - POLY

SPECIFICATIONS

Low density HMW - Polyethylene Republic Tracer, for gas pipelines/water pipeline

INSULATION: Polyethylene

SIZES: 14 - 10

CONDUCTOR: Solid or stranded bare annealed copper

CONSTRUCTION: Bare per ASTM B3, B8, B787 (19 Wire Construction), D1248
Insulation per ANSI/ICEA S-70-547-2000

GAUGE	CONSTRUCTION	WEIGHT
14	SOLID	16
12	SOLID	24
10	SOLID	36.5
14	7 or 19 STRAND	17
12	7 or 19 STRAND	31.4
10	7 or 19 STRAND	38

* Insulations Thickness: Standard is 30 mil

Republic can offer up to 80 mil.

TRANSFORMER RISER WIRE

SIZE (AWG)	STRANDING	COVERING THICKNESS (MILS)	DIAMETER (MILS)		WEIGHT PER 1000 FT. IN POUNDS
			BARE	COVERED	
8	SOLID	110	128.5	348.5	83
6	SOLID	110	162.0	382.0	117



TERMS AND CONDITIONS

PAYMENT TERMS:

Bare Copper:	Net 30 Days from date of invoice
Tinned Bare Copper:	Net 30 Days from date of invoice
TW, THW, & Poly:	Net 30 Days from date of invoice
THHN, XHHW, & USE:	2% 10th Day/Net 30 Days from date of invoice

FREIGHT TERMS:

FREIGHT ALLOWED:

	<u>Agent w/Stock</u>	<u>Non-Stocking Agents/Factory</u>	<u>Factory Shipments West of Mississippi</u>
Bare Copper Only	2,000 lbs.	3,500 lbs.	5,000 lbs.
Insulated Wire	5,000 lbs.	5,000 lbs.	5,000 lbs.
Combination of All Products	5,000 lbs.	5,000 lbs.	5,000 lbs.

PLUS FREIGHT:

Orders not meeting the above Freight Allowed terms will be billed as “Freight Collect”, “Third Party Bill”, or “Freight Prepay and Add”. If “Freight Prepay and Add” is elected, freight charges will be added to the invoice. For all shipments where no “LTL” discount is available to Republic Wire, Inc., a \$5.00 handling fee will be added to the total charge.

SHIPPING LENGTH TOLERANCES:

Plus or Minus 10% unless otherwise agreed upon at order acceptance.

I HAVE READ REPUBLIC WIRE'S TERMS AND CONDITIONS STATED ABOVE. BY SIGNING BELOW, I HEREBY ACCEPT THESE TERMS AND CONDITIONS.

SIGNATURE

TITLE

DATE





GENERAL INFORMATION

RETURN MATERIAL

Authorization to return material must be obtained from your Republic Wire, Inc. representative. Material eligible for return must be on the original shipping reel and in salable lengths, as determined by Republic Wire, Inc. Material returned is subject up to a 25% restocking charge plus freight both ways, and is subject to inspection at Republic Wire, Inc.'s facilities before final acceptance. All requests for return must be made within thirty (30) days of purchase date.

ACCEPTANCE

All prices are valid for the period indicated on the quotation. All quotations are subject to change or withdrawal without notice any time prior to order acceptance. After final acceptance of Buyer's order by seller, Buyer has no option to change any quantity, size, specifications, etc., unless given the express right to do so by Seller. If account is past due, Republic Wire, Inc. reserves the right to cancel order.

CANCELLATIONS

If Buyer cancels order after acceptance thereof by Seller, Buyer will be subject to a cancellation charge equal to 30% of the order price if the cancellation notice is received within thirty (30) days prior to the start of manufacture. In addition, any raw material acquired for Buyer's order will be for Buyer's account. If such cancellation notice is received after Buyer's order has commenced, a cancellation charge equal to 30% of the order price, plus the value of the work-in-progress, less scrap salvage value, will apply.

CUTTING CHARGES

There will be additional charges of \$20.00 per cut for bare copper and \$25.00 per cut for insulated copper on any lengths that are non-standard put-ups.

SPECIAL PACKAGING

There will be additional charges for special requests on packaging non-standard put-ups.

STANDARD SHIPMENT

Unless otherwise stated, shipments of wire will be in seller's standard coils, reels, spools or packages. When returnable spools, reels or non-standard packaging are required in connection with shipments of wire, they shall remain the property of Seller. A deposit shall be charged separately, which shall be due thirty (30) days from the invoice date, without discount. When the foregoing are returned to the point of origin in good condition, (reasonable wear and tear accepted), within a period of twelve (12) months from date of shipment, credit will be allowed for the amount originally paid. This credit, however, is subject to reduction for repairs if, in Seller's sole opinion, repairs are necessary. Credit for spools, reels or non-standard packaging which are returned after twelve (12) months from the date of shipment will be a Seller's sole option, and subject to prior inquiry with Seller's sales representative.



NOTES

