

# COPPER BUILDING WIRE

## THHN

**600 Volt. Copper Conductor. Thermoplastic Insulation / Nylon Sheath.  
Heat, Moisture, Oil, and Gasoline Resistant<sup>1</sup>.**



### APPLICATIONS

Type THHN or THWN-2 conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the National Electrical Code<sup>2</sup>. When used as Type THHN, conductor is suitable for use in dry locations at temperatures not to exceed 90°C. When used as Type THWN-2, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C when exposed to oil or coolant. When used as Type MTW, conductor is suitable for use in wet locations or when exposed to oil or coolant at temperatures not to exceed 60°C or dry locations at temperatures not to exceed 90°C (with ampacity limited to that for 75°C conductor temperature per NFPA 79). Conductor temperatures not to exceed 105°C in dry locations when rated AWM and used as appliance wiring material. Voltage for all applications is 600 volts.

### SPECIFICATIONS

Type THHN or THWN-2 or MTW (also AWM) meets or exceeds all applicable ASTM specifications, UL standard 83, UL standard 1063 (MTW), Federal Specification J-C-30B, and requirements of the National Electrical Code. CT Use (1/0 and larger).

### CONSTRUCTION

Type THHN or THWN-2 or MTW copper conductors are annealed (soft) copper, insulated with a tough heat and moisture resistant polyvinyl chloride (PVC), over which a nylon (polyamide) or UL-listed equal jacket is applied. Available in black, white, red, blue, green, yellow, brown, orange, and grey. Some colors standard, some subject to economic order quantity. Sizes 1 AWG through 1,000 kcmil available in black only.

PWC Catalog #	Conductor		Insulation Thickness (MILS)	Jacket Thickness (MILS)	Nominal O.D.		Approx. Net Weight Per 1000' (Lbs.)		Allowable Ampacities <sup>+</sup>		
	Size (AWG or KCMIL)	Number of Strands			Sol.	Str.	Sol.	Str.	60°C	75°C	90°C
06-0001	**14	19*	15	4	.102	.109	15	16	15	15	15
06-0003	**12	19*	15	4	.119	.128	23	24	20	20	20
06-0005	**10	19*	20	4	.150	.161	37	38	30	30	30
06-0007	**8	19	30	5	--	.213	--	63	40	50	55
06-0009	**6	19	30	5	--	.249	--	95	55	65	75
06-0011	4	19	40	6	--	.318	--	152	70	85	95
06-0013	3	19	40	6	--	.346	--	188	85	100	110
06-0015	2	19	40	6	--	.378	--	234	95	115	130
06-0017	1	19	50	7	--	.435	--	299	110	130	150
06-0019	1/0	19	50	7	--	.474	--	371	125	150	170
06-0021	2/0	19	50	7	--	.518	--	461	145	175	195
06-0023	3/0	19	50	7	--	.568	--	574	165	200	225
06-0025	4/0	19	50	7	--	.624	--	717	195	230	260
06-0027	250	37	60	8	--	.694	--	850	215	255	290
06-0029	300	37	60	8	--	.747	--	1011	240	285	320
06-0031	350	37	60	8	--	.796	--	1172	260	310	350
06-0033	400	37	60	8	--	.842	--	1333	280	335	380
06-0035	500	37	60	8	--	.925	--	1653	320	380	430
06-0037	600	61	70	9	--	1.024	--	1985	355	420	475
06-0039	750	61	70	9	--	1.126	--	2462	400	475	535
06-0041	1000	61	70	9	--	1.276	--	3255	455	545	615

<sup>1</sup> Oil and gasoline resistance II as defined by Underwriters Laboratories.

<sup>2</sup> 1999 Edition.

\* Solid construction available in sizes 14, 12, & 10 as Types THHN or THWN-2 or AWM only.

\*\* Also suitable for 105 C appliance wiring material (AWM).

+ Allowable Ampacities:

Allowable ampacities shown are for general use as specified by the National Electrical Code, 1999 Edition, section 310-15.

60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for #14 through #1 conductors.

MTW wet locations or when exposed to oil or coolant.

75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than #1.

THWN-2 when exposed to oil or coolant. MTW dry locations.

90°C - THHN dry locations. THWN-2 wet or dry locations.

> Information on this sheet is subject to change without notice. All diameters are nominal values.

All diameters and weights are subject to normal manufacturing tolerances.