



ANNEALED
(SOFT) COPPER

HEAT AND
MOISTURE
RESISTANT
POLYVINYL
CHLORIDE (PVC)

NYLON
(POLYAMIDE)
OR UL-LISTED
EQUAL JACKET

600 Volt

Copper Conductor

Thermoplastic
Insulation/Nylon Sheath
Heat, Moisture, Gasoline,
and Oil Resistant¹

Sizes 14 AWG through
6 AWG Rated AWM
(105°C)
Sizes 14 AWG through
1 AWG Rated VW-1

THHN/THWN/TWN75/T90

IRRIGATION
CABLE

APPLICATIONS Suitable for use as follows:

- Southwire 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^{®2}
- 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

CONSTRUCTION

- Southwire 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

STANDARDS & REFERENCES

Southwire 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 A-A-59544, and requirements of the National Electrical Code[®]

SPECIFICATIONS

- **MTW or THHN or THWN-2**
Conductors shall be UL-listed Type MTW or THHN or THWN-2* gasoline and oil resistant II, suitable for operations at 600 volts as specified in the National Electrical Code[®]. Sizes 14 AWG through 6 AWG shall be rated VW-1. Conductors shall be annealed copper, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or listed equivalent, as manufactured by Southwire Company or approved equal.
- **AWM**
Conductors shall be UL-listed Type THHN or THWN-2* or MTW or AWM, suitable for operation at 600 volts at conductor temperatures not to exceed 105°C.

* rated -2 for 8 AWG and larger only

¹ Oil and gasoline resistant II as defined by Underwriters Laboratories

² 2005 Edition

WEIGHTS, MEASUREMENTS AND PACKAGING											
CONDUCTOR		INSULATION THICKNESS (mils)	JACKET THICKNESS (mils)	NOMINAL O.D. (mils)		APPROX. NET WEIGHT (lbs/1000 ft)		ALLOWABLE AMPACITIES*			STANDARD PACKAGE
SIZE (AWG or kcmil)	NUMBER OF STRANDS			SOL.	STR.	SOL.	STR.	60°C	75°C	90°C	
14	19	15	4	102	109	15	16	15	15	15	DNFP
12	19	15	4	119	128	23	24	20	20	20	DNFP
10	19	20	4	150	161	37	38	30	30	30	DQFP
Solid construction available in sizes 14 AWG through 10 AWG as Types THHN or THWN or AWM only. Sizes 14 AWG through 6 AWG also suitable for 105°C appliance wiring material (AWM). Sizes 14 AWG and 12 AWG contain four 500 ft. spools per carton. Size 10 AWG contains two 500' spools per carton. *Allowable ampacities shown are for general use as specified by the National Electrical Code®, 2005 Edition, section 310.15 unless the equipment is marked for use at higher temperatures the conductor ampacity shall be limited to the following: 60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 6 AWG conductors. MTW wet locations or when exposed to oil or coolant. 90°C - THHN dry locations. THWN-2 wet or dry locations. For ampacity derating purpose								STANDARD PACKAGE CODES B – 1000 ft. reel C – 500 ft. reel D – 2500 ft. spool E – 1000 ft. spool F – 500 ft. spool N – 2000 ft. carton Q – 350 ft. carton P – Drum			