

Copper TFFN



600 Volt. Copper Conductor. Thermoplastic Insulation/Nylon Sheath. Heat, Moisture, Oil, and Gasoline Resistant II. Also Rated MTW and 105 °C AWM. Also Available, TFFN and TEWN.

APPLICATIONS

Southwire® Type TFFN or MTW or AWM may be used as fixture wire, machine tool wiring, or appliance wiring material as specified in the National Electrical Code. Voltage for all applications is 600 volts. Allowable temperatures are as follows:

- TFFN- Dry locations not to exceed 90°C
- MTW- Wet locations or when exposed to oil or coolant at temperatures not to exceed 60°C
- MTW- Dry locations at Temperatures not to exceed 90°C (with ampacity limited to that for 75°C conductor temperature per NFPA 79)
- AWM- When rated as appliance wiring material in dry locations, conductor temperatures not to exceed 105°C
- TEWN- Wet or dry locations conductor temperatures not to exceed 105°C

STANDARDS & REFERENCES

Southwire® Type TFFN or MTW or AWM complies with:

- ASTM- All Applicable Standards
- UL Standards 66, 758, and 1063
- National Electrical Code, NFPA 70, 2011 Edition
- RoHS/REACH

CONSTRUCTION

Southwire® Type TFFN or MTW or AWM copper conductors are annealed (soft) copper, insulated with a tough, heat and moisture resistant polyvinyl chloride (PVC), over which a nylon (polyamide) jacket is applied. Available in black, white, red, blue, green, yellow, orange, brown, purple, gray, and pink. Some colors standard, some subject to economic order quantity.



TFFN

Conductor		Vinyl Insulation (mils)	Nylon Jacket (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+		Standard Package
Size (AWG or kcmil)	No. of strands					TFFN	MTW	
18	16	15	4	85	7	6	7	DNF
16	26	15	4	99	11	8	10	DNF

* Four 500' spools per carton.
 +Ampacities shown are for general use as specified by the National Electrical Code, 2011 Edition. TFFN as specified by section 402.5 and MTW as specified by NFPA 79.

STANDARD PACKAGE CODE:
 F - 500' Spool
 N - 2000' Carton
 D - 2500' Spool

RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type TFFN or MTW or AWM gasoline and oil resistant II, suitable for operation at 600 volts as specified in the National Electrical Code.

Conductors shall be annealed copper, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon, as manufactured by Southwire Company or approved equal.

TFN/TEWN

Size (AWG)	No. of strands	Vinyl Insulation (mils)	Nylon Jacket (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacity+	Standard Package TFFN
18	1	15	5	80	7	6	DNF
18	7	15	5	85	7	6	DNF
16	1	15	5	91	10	8	DNF
16	7	15	5	96	11	8	DNF

* Four 500' spools per carton.
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STANDARD PACKAGE CODE:
 F - 500' Spool
 N - 2000' Carton
 D - 2500' Spool

RECOMMENDED SAMPLE SPECIFICATIONS:

Southwire Type TFN conductors may be used as fixture wire and as permitted for fire protective signal circuits as specified in the National Electrical Code at conductor temperatures not to exceed 90°C or 105°C when used as AWM. Voltage rating for all applications is 600 volts.

TFFN

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
18	16	Stock#: BK:270215, WE:270223, BE:270249, BN:270280, GY:270314, GN:270256, OE:270272, PK:270298, PE:270306, RD:270231, TN:297549, YW:270264
16	26	Stock#: BK:270322, WE:270330, BE:270355, BE/WE:567169, BN:270397, GY:270421, GN:270363, OE:270389, PK:270405, PE:270413, RD:270348, TN:297531, YW:270371

TFN/TEWN

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
18	1	Stock#: BK:269779, WE:269787, BE:269803, BN:269845, GY:269878, GN:269811, OE:269837, PE:269860, RD:269795, YW:269829
18	7	Stock#: N/A
16	1	Stock#: BK:269886, WE:269894, BE:269910, BN:269951, GY:269985, GN:269928, OE:269944, PE:269977, RD:269902, YW:269936
16	7	Stock#: N/A

Color Abbreviations

BK-Black	WE-White	BE-Blue	BN-Brown	GY-Grey	GN-Green
OE-Orange	PK-Pink	PE-Purple	RD-Red	TN-Tan	YW-Yellow

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- MTW- Wet locations or when exposed to oil or coolant at temperatures not to exceed 60°C
- MTW- Dry locations at Temperatures not to exceed 90°C (with ampacity limited to that for 75°C conductor temperature per NFPA 79)
- AWM- When rated as appliance wiring material in dry locations, conductor temperatures not to exceed 105°C
- TEWN- Wet or dry locations conductor temperatures not to exceed 105°C

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TFFN

Conductor		Vinyl Insulation (mils)	Nylon Jacket (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacities+		Standard Package
Size (AWG or kcmil)	No. of strands					TFFN	MTW	
18	16	15	4	85	7	6	7	DNF
16	26	15	4	99	11	8	10	DNF

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TFN/TEWN

Size (AWG)	No. of strands	Vinyl Insulation (mils)	Nylon Jacket (mils)	Nominal O.D. (mils)	Approx. Net Wt. Per 1000' (lbs.)	Allowable Ampacity+	Standard Package TFFN
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