# TFFN/TFN/TEWN

#### A P P L I C A T I O N S Suitable for use as follows:

- 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<sup>®2</sup>
- When used as Type TFFN, conductor is suitable for use at temperatures not to exceed 90°C
- 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

## STANDARDS & REFERENCES

Southwire Type TFFN or MTW or AWM meets or exceeds UL Standard 66 and requirements of the National Electrical Code.<sup>®</sup> RoHS Compliant.

### C O N S T R U C T I O N

- 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, grey and pink; some colors standard, some subject to economic order quantity

## S P E C I F I C A T I O N S

• TFFN:

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.<sup>®</sup> 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:

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<sup>®</sup> at conductor temperatures not to exceed 90°C or 105°C when used as AWM. Voltage rating for all applications is 600 volts.

\* rated -2 for 8 AWG and larger only

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

<sup>2</sup> 2005 Edition



green (Spec<sup>®</sup> RoHS Compliant 2002/95/EC

600 Volt

ANNEALED (SOFT) COPPER

HEAT AND

MOISTURE

RESISTANT POLYVINYL

NYLON

JACKET

**CHLORIDE (PVC)** 

(POLYAMIDE)

**Copper Conductor** 

Thermoplastic Insulation/Nylon Sheath

Heat, Moisture, Oil and Gasoline Resistant<sup>1</sup>

Rated MTW and 105°C AWM

TFN Also Available



| WEIGHTS, MEASUREMENTS, AND PACKAGING |  |                    |                 |               |           |                |      |                  |                      |  |
|--------------------------------------|--|--------------------|-----------------|---------------|-----------|----------------|------|------------------|----------------------|--|
| SIZE<br>(AWG)                        | NUMBER OF<br>Strands   | VINYL<br>THICKNESS | NYLON<br>Jacket | (mils) WEIGHT |           | WEIGHT PER AMP |      | VABLE<br>Ities** | STANDARD<br>Package* |  |
| (AWG)                                | STRANDS  | (mils)             | (mils)          | (IIIIS)       | (lbs/1000 | ) ft)          | TFFN | MTW              | FAUNAGE              |  |
| 18                                   | 16   | 15                 | 4               | 85            | 7         |                | 6    | 7                | DNFP                 |  |
| 16                                   | 26   | 15                 | 4               | 99            | 11        | 8 10           |      |                  | DNFP                 |  |
| **Ampacities sh                      | *Four 500' spools per carton.<br>**Ampacities shown are for general use as specified by the National Electrical Code <sup>®</sup> , 2005 Edition.<br>TFFN as specified by section 402.5 and MTW as specified by NFPA 79.<br>D = 2500 ft. spool<br>D = 2500 ft. spool |                    |                 |               |           |                |      |                  |                      |  |

D – 2500 P – Drum

| WEIGHTS, | MEASURE | <b>МЕМТЅ</b> , | AND | PACKAGING |
|----------|---------|----------------|-----|-----------|
|----------|---------|----------------|-----|-----------|

| SIZE<br>(AWG) | NUMBER OF<br>Strands   | VINYL<br>THICKNESS<br>(mils) | NYLON<br>JACKET<br>(mils) | NOMINAL O.D.<br>(mils)  | APPROX. NET<br>WEIGHT PER<br>(Ibs/1000 ft) |  | ALLOWABLE<br>Ampacities** | STANDARD<br>Package TFN* |
|---------------|--|------------------------------|---------------------------|---|--|--|---------------------------|--------------------------|
| 18            | 1  | 15                           | 4                         | 78  | 7  |  | 6                         | DNFP                     |
| 18            | 7  | 15                           | 4                         | 82  | 7  |  | 6                         | DNFP                     |
| 16            | 1  | 15                           | 4                         | 89  | 10   |  | 8                         | DNFP                     |
| 16            | 7  | 15                           | 4                         | 94  | 11   |  | 8                         | DNFP                     |
|               | ols per carton.<br>nown are for genera<br>d by section 402.5 | Edition.                     | F – 5<br>N –<br>D – 5     | NDARD PACKAGE (<br>500 ft. spool<br>2000 ft. carton<br>2500 ft. spool<br>Drum | CODES                                      |  |                           |                          |

# TFFN/TFN/TEWN

#### A P P L I C A T I O N S Suitable for use as follows:

- 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<sup>®2</sup>
- When used as Type TFFN, conductor is suitable for use at temperatures not to exceed 90°C
- 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

## STANDARDS & REFERENCES

Southwire Type TFFN or MTW or AWM meets or exceeds UL Standard 66 and requirements of the National Electrical Code.<sup>®</sup> RoHS Compliant.

### C O N S T R U C T I O N

- 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, grey and pink; some colors standard, some subject to economic order quantity

## S P E C I F I C A T I O N S

• TFFN:

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.<sup>®</sup> 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:

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<sup>®</sup> at conductor temperatures not to exceed 90°C or 105°C when used as AWM. Voltage rating for all applications is 600 volts.

\* rated -2 for 8 AWG and larger only

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

<sup>2</sup> 2005 Edition



green (Spec<sup>®</sup> RoHS Compliant 2002/95/EC

600 Volt

ANNEALED (SOFT) COPPER

HEAT AND

MOISTURE

RESISTANT POLYVINYL

NYLON

JACKET

**CHLORIDE (PVC)** 

(POLYAMIDE)

**Copper Conductor** 

Thermoplastic Insulation/Nylon Sheath

Heat, Moisture, Oil and Gasoline Resistant<sup>1</sup>

Rated MTW and 105°C AWM

TFN Also Available



| WEIGHTS, MEASUREMENTS, AND PACKAGING |  |                    |                 |               |           |                |      |                  |                      |  |
|--------------------------------------|--|--------------------|-----------------|---------------|-----------|----------------|------|------------------|----------------------|--|
| SIZE<br>(AWG)                        | NUMBER OF<br>Strands   | VINYL<br>THICKNESS | NYLON<br>Jacket | (mils) WEIGHT |           | WEIGHT PER AMP |      | VABLE<br>Ities** | STANDARD<br>Package* |  |
| (AWG)                                | STRANDS  | (mils)             | (mils)          | (IIIIS)       | (lbs/1000 | ) ft)          | TFFN | MTW              | FAUNAGE              |  |
| 18                                   | 16   | 15                 | 4               | 85            | 7         |                | 6    | 7                | DNFP                 |  |
| 16                                   | 26   | 15                 | 4               | 99            | 11        | 8 10           |      |                  | DNFP                 |  |
| **Ampacities sh                      | *Four 500' spools per carton.<br>**Ampacities shown are for general use as specified by the National Electrical Code <sup>®</sup> , 2005 Edition.<br>TFFN as specified by section 402.5 and MTW as specified by NFPA 79.<br>D = 2500 ft. spool<br>D = 2500 ft. spool |                    |                 |               |           |                |      |                  |                      |  |

D – 2500 P – Drum

| WEIGHTS, | MEASURE | <b>МЕМТЅ</b> , | AND | PACKAGING |
|----------|---------|----------------|-----|-----------|
|----------|---------|----------------|-----|-----------|

| SIZE<br>(AWG) | NUMBER OF<br>Strands   | VINYL<br>THICKNESS<br>(mils) | NYLON<br>JACKET<br>(mils) | NOMINAL O.D.<br>(mils)  | APPROX. NET<br>WEIGHT PER<br>(Ibs/1000 ft) |  | ALLOWABLE<br>Ampacities** | STANDARD<br>Package TFN* |
|---------------|--|------------------------------|---------------------------|---|--|--|---------------------------|--------------------------|
| 18            | 1  | 15                           | 4                         | 78  | 7  |  | 6                         | DNFP                     |
| 18            | 7  | 15                           | 4                         | 82  | 7  |  | 6                         | DNFP                     |
| 16            | 1  | 15                           | 4                         | 89  | 10   |  | 8                         | DNFP                     |
| 16            | 7  | 15                           | 4                         | 94  | 11   |  | 8                         | DNFP                     |
|               | ols per carton.<br>nown are for genera<br>d by section 402.5 | Edition.                     | F – 5<br>N –<br>D – 5     | NDARD PACKAGE (<br>500 ft. spool<br>2000 ft. carton<br>2500 ft. spool<br>Drum | CODES                                      |  |                           |                          |