



تاروں سے ستاروں تک

**THHN-THWN PVC
INSULATED-NYLON
JACKETED 600V**



Heat, Moisture, Oil, and Gasoline Resistant American Wires

1. Applications

THHN (Thermoplastic High Heat-Resistant Nylon-coated) and THWN (Thermoplastic Heat and Water-Resistant Nylon-coated) are widely used in residential, commercial, and industrial electrical wiring. These wires are ideal for conduit and cable tray installations, ensuring reliable performance in both dry and wet conditions.

2. Features

THHN Wires:

- High heat resistance, rated for 90°C (194°F) in dry locations.
- Nylon coating provides additional protection against abrasion, chemicals, and mechanical damage.

THWN Wires:

- Similar to THHN but with an added moisture-resistant layer to handle wet environments.
- Rated for 90°C (194°F) in dry locations and 75°C (167°F) in wet locations.
- Specifically designed to resist moisture, making it suitable for damp and underground conduit installations.
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3. General Properties

THHN/THWN building wires offer excellent resistance to:

- Oils & gasoline
- Water & acids
- Ozone & sunlight (UV exposure)
- Abrasion & mechanical damage

4. Applicable Standards

UL 83: Thermoplastic Insulated Wires and Cables
UL 1581: Electrical Wires, Cables, and Flexible Cords

UL 1063: Machine Tool Wires (MTW)
UL 62: Flexible Cord and Fixture Wire

5. Cable Construction

- **Conductor:** Plain annealed solid, stranded copper, or flexible conductor.
- **Insulation:** Heat, moisture, and flame retardant PVC
- **Sheath:** Polyamide Nylon Jacket
- **Colors:** Red, yellow, blue, black, green, grey, brown, white, orange, violet, and purple. Other colors are available upon request.
- **Marking:** FAST CABLES LTD CU [TYPE] [NO. OF CORES]/C THHN OR THWN [XX] AWG (XX MMSQ) 600V [XX]°C UL[XX]
- **Packing:** According to customer preferences

6. Technical Data

Conductor			Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Normal Jacket Thickness	Approx. Overall Diameter	Approx. Net Weight	Current Carrying Capacity (Amp) at 30°C in Air	
Nominal Cross Section Area		Wire Size						THHN 90 °C	THWN 75 °C
AWG	mm ²	No. x Wire Size (mm)	Ω/Km	mm	mm	mm	Kg/Km	AMP	AMP
14	2.08	1x1.63	8.45	0.38	0.1	2.7	24	35	30
12	3.31	1x2.05	5.31	0.38	0.1	3.1	36	40	35
10	5.26	1x2.59	3.34	0.51	0.1	3.9	58	55	50
14	2.08	19x0.373	8.62	0.38	0.1	2.9	25	35	30
12	3.31	19x0.47	5.43	0.38	0.1	3.4	38	40	35
10	5.26	19x0.594	3.41	0.51	0.1	4.2	59	55	50
8	8.37	19x0.75	2.14	0.76	0.13	5.6	97	80	70
6	13.3	19x0.944	1.35	0.76	0.13	6.5	147	105	95
14	2.08	7/0.62	8.62	0.38	0.1	2.9	25	35	30
12	3.31	7/0.78	5.43	0.38	0.1	3.3	38	40	35
10	5.26	7/0.98	3.41	0.51	0.1	4.2	59	55	50
8	8.37	7/1.234	2.14	0.76	0.13	5.5	97	80	70
6	13.3	7/1.56	1.35	0.76	0.13	6.5	147	105	95

- Other sizes can be provided upon specific request, e.g., 16 AWG, 18 AWG, and flexible conductor.
- The above data is approximate and subject to manufacturing tolerances.

Contact Info

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