

# Type THHN/THWN-2 CCA Conductor

600V | Copperweld® Copper-Clad Aluminum (CCA) Building Wire



## Engineering Specifications:

**Standards:** UL-83, UL-1581, ASTM B566

**Listings and Compliance:** UL: E510284 and E538020, ETL: 5021266, RoHS Compliant, REACH Compliant

### Construction:

- **Conductors** – UL recognized component (DVVV2); solid or stranded annealed Copper-Clad Aluminum (CCA) bimetallic conductor meeting ASTM B566 with an 8000-series aluminum core
- **Insulation** – Color-coded Polyvinyl Chloride (PVC) meeting the required thickness of Type THHN/THWN-2
- **Jacket** – Heat-stabilized nylon jacket

### Identification and Applications:

- **Identification:** Copperweld® THHN/THWN-2 wire is identified for use with wiring devices, splice connectors and equipment terminals rated for CC, Cu, Cu/Al and CO/ALR. Copperweld® Copper-Clad Aluminum (CCA) is not dissimilar metallurgically to copper, brass or zinc-plated steel. Copperweld® CCA is dissimilar to aluminum for making electrical connections. If splicing with twist-on splice connectors, pre-twisting is not required. Copperweld® THHN/THWN-2 wire is made with ASTM B-566 Copper-Clad Aluminum bare conductor, which carries its own component listing, DVVV2, which is an NEC requirement.
- **Applications:** Refer to Article 310 of the NEC.



- 1 Copperweld CCA conductor
- 2 PVC insulation
- 3 Nylon jacket

Equivalent Copper Size	CCA Size	No. of Strands**	Thickness (mils)		Nom. Outside Diameter (in)	Nom. Total Weight (lbs/1000 ft)	Allowable Ampacity*	
			Insulation	Jacket			75°C	90°C
14 AWG	12 AWG	Solid	15	4	0.119	10.84	20	25
12 AWG	10 AWG	Solid	20	4	0.150	17.11	30	35
10 AWG	8 AWG	Solid	30	5	0.199	28.99	40	45
14 AWG	12 AWG	7	15	4	0.130	11.82	20	25
12 AWG	10 AWG	7	20	4	0.164	18.95	30	35
10 AWG	8 AWG	7	30	5	0.216	31.29	40	45
8 AWG	6 AWG	7	30	5	0.254	45.54	50	55
6 AWG	4 AWG	7	40	6	0.324	73.41	65	75
5 AWG	3 AWG	7	40	6	0.352	88.45	75	85
4 AWG	2 AWG	7	40	6	0.384	109.80	90	100
3 AWG	1 AWG	7	50	7	0.442	142.60	100	115

\* Ampacity of conductors are based on the Copper-Clad Aluminum columns of NFPA 70 (NEC) Table 310.16. See 110.14(C), 240.4(D) and 310.15(B) and (C) for other limitations where applicable.

\*\* Other stranding options available on request.



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## Ordering Information:

Cable Type	CCA Size	No. of Strands *	Colors ***	Standard Packaging**	Part Number***
THHN/THWN-2	<b>12 AWG</b>	Solid	See Legend	500', 1000', 2500', 5000'	12THHN-1/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>10 AWG</b>	Solid	See Legend	500', 1000', 2500', 5000'	10THHN-1/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>8 AWG</b>	Solid	See Legend	500', 1000', 2500', 5000'	8THHN-1/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>12 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	12THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>10 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	10THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>8 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	8THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>6 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	6THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>4 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	4THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>3 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	3THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>2 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	2THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]
THHN/THWN-2	<b>1 AWG</b>	7	See Legend	500', 1000', 2500', 5000'	1THHN-7/0-CCA-[CLR]-T2-[Ft]-[PKG]

\* Other stranding options available on request.

\*\* Other packaging options and denominations available on request.

\*\*\* Part Number Legend: [Size of Circuit Cond.][Type]-[# of Strands Circuit Cond. / Ground Cond.]-[Color]-T2-[Length in Feet]-[Packaging]

- Color [CLR]: Black [BK], Blue [BL], Brown [BR], Gray [GY], Green [GR], Orange [OR], Purple [PU], Red [RD], White [WT], and Yellow [YL]
- Other color options available upon request.
- Standard Packaging [PKG]: Hand Coils [C], Plastic Spools or Wooden Reels [RL]