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**河南泰诺电缆有限公司**

HENAN TANO CABLE CO.,LTD.



# BUILDING WIRE to ASTM STANDARD



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Henan Tano Cable Co., Ltd.( Tano Cable for short), is a leading and professional manufacturer of cable and wire with more than 20 years' history and manufacturing experience, located in Zhengzhou city which is the capital of Henan province, China.

Tano Cable aims at providing integral power solution for international customers. We are working together as one company to provide products and technologies for building, maintaining and advancing the power and information infrastructures that connect the world. We mainly have the following products with strong competitiveness: All Aluminum Conductors (AAC), All Aluminum Alloy Conductors (AAAC), Aluminum Conductors Steel Reinforcement (ACSR) , Aerial Bundled Cables (ABC), building wire, welding cable, control cable, instrument cable, rubber cable, PVC insulated power cable, XLPE insulated power cable up to 500KV, customer-tailored cable and cable accessories, conforming to many different Country or international standard, such as IEC, HAR, BS, DIN, ICEA, ASTM, SABS, AS/NZS, JIS and so on.

Tano Cable pays great importance on the quality. We have strong teams and equipments for both production and inspection. Moreover, we have been awarded many certificates of ISO, CE, SONCAP, others from China and abroad. We keep improving our quality management system to meet the client's final satisfaction.

Tano Cable has provided services to the global clients who working in all areas of the energy, construction, industrial, specialty and communications market, and obtained the client's trust and compliment.

Welcome your any inquiry! Welcome your any visit! Welcome your any contact! We will take our biggest sincerity to be your long-term friend and partner.





# Table of Contents

THHN / THWN.....	5
THW/THW-2.....	7
TW.....	8
XHH / XHHW-2.....	9



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## Building Wire THHN /THWN to ASTM Standard

### APPLICATION

Type THHN/THWN conductors are primarily used in conduit for services, feeder, and branch circuits in commercial or industrial applications as specified in the National Electrical Code.

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, conductor is suitable for use at temperatures not to exceed 90°C, dry locations or 75°C wet locations or not to exceed 75°C when exposed to oil or coolant.

When used as type THWN-2, conductor is suitable for use in wet and 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 conductors per NFPA 79).

Conductor temperatures not to exceed 105°C in dry locations when rated AWM and used as appliance wiring material. Voltage rating for all applications is 600 volts.

### STANDARD

UL 83 - Thermoplastic-Insulated Wires and Cables

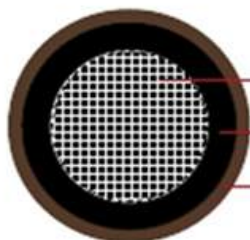
CSA C22.2 No. 75-03

UL 1063 (MTW) - Machine-Tool Wires and Cables (stranded cables only)

UL 758 (AWM)

ICEA S-95-658/NEMA WC 70

## CONSTRUCTION



Stranded bare copper conductor

PVC insulation

Nylon jacket

**Conductor:** Soft annealed bare copper, Class B stranding per ASTM B8

**Insulation:** Tough, heat and moisture resistant Polyvinyl chloride (PVC) insulation over which a nylon (polyamide) jacket is applied.

**Color:** upon request, black is preferable

## CONSTRUCTION PARAMETER



AWG or kcmil	Strand	Nominal Insulation Thickness		Nominal Jacket Thickness		Nominal Overall Diameter		Cable weight	
		Inch	mm	Inch	mm	Inch	mm	Lbs/Mt	kg/km
14	1	0.015	0.38	0.004	0.1	0.11	2.79	15	22
12	1	0.015	0.38	0.004	0.1	0.12	3.05	23	34
10	1	0.02	0.51	0.004	0.1	0.15	3.81	37	54
14	19	0.015	0.38	0.004	0.1	0.11	2.79	16	24
12	19	0.015	0.38	0.004	0.1	0.13	3.3	24	36
10	19	0.02	0.51	0.004	0.1	0.17	4.32	39	58
8	19	0.03	0.76	0.005	0.13	0.22	5.59	63	94
6	19	0.03	0.76	0.005	0.13	0.26	6.6	98	145
4	19	0.04	1.01	0.006	0.15	0.33	8.38	157	234
3	19	0.04	1.01	0.006	0.15	0.36	9.14	193	287
2	19	0.04	1.01	0.006	0.15	0.39	9.91	240	357
1	19	0.05	1.27	0.007	0.18	0.43	10.92	300	446
1/0	19	0.05	1.27	0.007	0.18	0.47	11.94	376	560
2/0	19	0.05	1.27	0.007	0.18	0.52	13.21	467	695
3/0	19	0.05	1.27	0.007	0.18	0.57	14.48	581	864
4/0	19	0.05	1.27	0.007	0.18	0.64	16.26	724	1077
250	37	0.06	1.52	0.008	0.2	0.69	17.53	855	1272
300	37	0.06	1.52	0.008	0.2	0.76	19.3	1022	1521

350	37	0.06	1.52	0.008	0.2	0.79	20.07	1191	1772
400	37	0.06	1.52	0.008	0.2	0.85	21.59	1345	2001
500	37	0.06	1.52	0.008	0.2	0.94	23.88	1668	2482
600	61	0.07	1.78	0.009	0.23	1.1	27.94	1994	2967
750	61	0.07	1.78	0.009	0.23	1.16	29.46	2465	3668

## Building Wire THW/THW-2 to ASTM Standard

### APPLICATION

The THW conductor is suitable for most current wiring solutions for residential, commercial and industrial environments. It is used in service entrance, feeders and branch circuits for permanent installations. THW conductors in sizes 14 AWG to 1000 Kcmil (MCM) can be installed in conduits and other raceways. The temperature of installation shall not exceed 75°C (THW), not exceed 90°C (THW-2).

### STANDARD

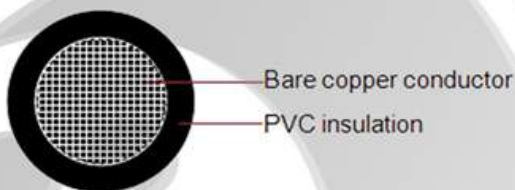
ASTM: B3, B8.

UL 83 - Thermoplastic-Insulated Wires and Cables

UL 1581 - Electrical Wires, Cables and Flexible Cords



### CONSTRUCTION



**Conductor:** Bare annealed copper conductor, solid or stranded

**Insulation:** PVC 75°C insulation

**Color:** upon request, black is preferable



## CONSTRUCTION PARAMETER

AWG or Inch/mm	Strand	Nominal Insulation Thickness		Nominal Overall Diameter		Cable Weight	
		Inch	mm	Lbs/ft	kg/km	Lbs/ft	kg/km
14	1	0.03	0.76	0.169	4.3	22	33
12	1	0.03	0.76	0.189	4.8	32	47
10	1	0.03	0.76	0.213	5.4	46	68
8	1	0.045	1.14	0.24	6.1	67	100
6	1	0.06	1.52	0.276	7	101	151
14	7	0.03	0.76	0.177	4.5	24	36
12	7	0.03	0.76	0.201	5.1	34	50
10	7	0.03	0.76	0.228	5.8	49	73
8	7	0.045	1.14	0.291	7.4	79	118
6	7	0.06	1.52	0.335	8.5	117	174
4	7	0.06	1.52	0.386	9.8	172	256
2	7	0.08	2.03	0.445	11.3	263	391
1	19	0.08	2.03	0.531	13.5	339	505
1/0	19	0.08	2.03	0.575	14.6	418	622
2/0	19	0.08	2.03	0.622	15.8	515	767
3/0	19	0.08	2.03	0.677	17.2	638	950
4/0	37	0.08	2.03	0.74	18.8	792	1179
250	37	0.095	2.41	0.823	20.9	943	1404
300	37	0.095	2.41	0.882	22.4	1118	1664
350	37	0.095	2.41	0.937	23.8	1292	1923
400	37	0.095	2.41	0.984	25	1465	2180
500	61	0.095	2.41	1.079	27.4	1810	2694
600	61	0.11	2.79	1.197	30.4	2178	3241
700	61	0.11	2.79	1.272	32.3	2521	3751
750	61	0.11	2.79	1.307	33.2	2693	4007
800	61	0.11	2.79	1.343	34.1	2863	4260
900	61	0.11	2.79	1.409	35.8	3205	4769
1000	61	0.11	2.79	1.472	37.4	3538	5265

## Building Wire TW to ASTM Standard

### APPLICATION

The TW conductor is suitable for most current wiring solutions for residential, commercial and industrial environments. It is used in branch circuits for permanent installations. TW conductors in sizes 14 AWG to 8 AWG can be installed in conduits and other raceways. The temperature of installation shall not exceed 60°C.

## STANDARD

ASTM B3, B8

UL 83 - Thermoplastic-Insulated Wires and Cables

UL 1581 - Electrical Wires, Cables and Flexible Cords

## CONSTRUCTION



**Conductor:** Bare annealed copper conductor, solid or stranded

**Insulation:** PVC 60°C insulation

**Color:** upon request, black is preferable

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## CONSTRUCTION PARAMETER

AWG or Inch/mm	Strand	Nominal Insulation Thickness		Nominal Overall Diameter		Cable Weight	
		Inch	mm	Lbs/kft	kg/km	Lbs/kft	kg/km
14	1	0.03	0.76	0.138	3.5	19	28
12	1	0.03	0.76	0.154	3.9	27	40
10	1	0.03	0.76	0.177	4.5	40	60
8	1	0.045	1.14	0.24	6.1	67	100
14	7	0.03	0.76	0.146	3.7	19	29
12	7	0.03	0.76	0.165	4.2	29	43
10	7	0.03	0.76	0.193	4.9	44	65
8	7	0.045	1.14	0.26	6.6	72	107

## Building Wire XHH / XHHW-2 to ASTM Standard

## APPLICATION

The XHH conductor is suitable for most current wiring solutions for residential, commercial and industrial applications. Because of its excellent response under overload and short-circuit situations, it is used in service entrance even underground installations. The XHH conductor is able to work properly up to 90°C in dry environmental conditions. Its insulation is flame retardant, besides, it provides mechanical resistance against to humidity, chemical agents and oils. Its black pigmentation resist very well the ultraviolet sun light, therefore it could be used with no issue in outside applications. Conductors certified with suffix “-2”, as XHH-2, these can meet a continuous operation temperature of 90°C(194°F) in dry or wet conditions

## STANDARD

ASTM B3, B8

UL 1581 - Flame Exposure Test

UL 44 - Thermoset-Insulated Wires and Cables

National Electrical Code (NEC)



## CONSTRUCTION



Solid or stranded bare copper conductor

Cross-Linked Polyethylene insulation

Conductor: Solid or stranded bare annealed copper

Insulation: Cross-linked polyethylene(XLPE)

Color: upon request, black is preferable

AWG	Strand	Thickness		Nominal Overall Diameter		Cable Weight	
		Inch	mm	Inch	mm	Lbs/ft	kg/km
14	1	0.03	0.76	0.124	3.15	16	24

12	1	0.03	0.76	0.141	3.58	24	36
10	1	0.03	0.76	0.162	4.11	37	55
8	1	0.045	1.14	0.218	5.55	61	91
6	1	0.045	1.14	0.252	6.4	93	138
14	7	0.03	0.76	0.133	3.37	17	26
12	7	0.03	0.76	0.152	3.85	26	39
10	7	0.03	0.76	0.176	4.46	39	58
8	7	0.045	1.14	0.236	5.99	65	96
6	7	0.045	1.14	0.274	6.95	98	146
4	19	0.045	1.14	0.316	8.04	148	220
3	19	0.045	1.14	0.344	8.75	184	274
2	19	0.045	1.14	0.376	9.54	229	341
1	19	0.045	1.14	0.431	10.94	292	434
1/0	19	0.055	1.4	0.47	11.94	364	541
2/0	19	0.055	1.4	0.514	13.07	453	674
3/0	19	0.055	1.4	0.564	14.33	566	842
4/0	19	0.055	1.4	0.62	15.75	708	1053
250	37	0.065	1.65	0.706	17.93	838	1247
300	37	0.065	1.65	0.761	19.33	999	1486
350	37	0.065	1.65	0.812	20.62	1159	1725
400	37	0.065	1.65	0.859	21.82	1319	1963
500	37	0.065	1.65	0.945	24	1639	2439
600	61	0.08	2.03	1.053	26.75	1980	2946
750	61	0.08	2.03	1.169	29.44	2459	3660
1000	61	0.08	2.03	1.313	33.35	3256	4845



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