

THW

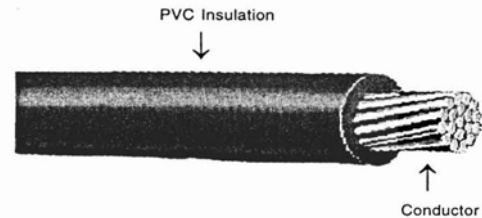
PVC Insulation, 600 Volts

APPLICATION: General purpose wiring for lighting and power - residential, commercial, industrial buildings in accordance with the National Electrical Code, maximum conductor temperature of 75°C in wet or dry locations, for circuits not exceeding 600 volts

STANDARDS:

1. Listed by UL as Type THW per Standard 83.
2. All sizes carry the VW-1 flame test designation.
3. Listed by UL as Oil Resistant I.
4. Listed by UL as Sunlight Resistant (250 kcmil and larger, black only)
5. 250 kcmil and larger pass UL and IEEE-383 ribbon burner flame test and are listed For CT Use.
6. Conforms to Federal Specification J-C-30B.

CONSTRUCTION: Annealed uncoated copper conductor, PVC insulation, surface printed.



USAWC Part #	Size AWG or kcmil	No. of Strands	Insulation Thickness Mils	Nom. Diam. Inches	NEC Ampacity*	Approx. Wt. lbs/1000 ft	
						Copper	Net
Solid							
14-01SOLTHW	14	Solid	30	.13	20	12	19
12-01SOLTHW	12	Solid	30	.15	25	20	26
10-01SOLTHW	10	Solid	30	.17	35	31	39
Stranded							
14-01THW	14	7	30	.14	20	13	19
12-01THW	12	7	30	.16	25	20	28
10-01THW	10	7	30	.18	35	32	41
8-01THW	8	7	45	.24	50	50	67
6-01THW	6	7	60	.30	65	81	105
4-01THW	4	7	60	.35	85	129	160
3-01THW	3	7	60	.38	100	163	195
2-01THW	2	7	60	.41	115	205	245
1-01THW	1	19	80	.49	130	258	315
1/0-01THW	1/0	19	80	.53	150	326	390
2/0-01THW	2/0	19	80	.57	175	411	480
3/0-01THW	3/0	19	80	.62	200	518	595
4/0-01THW	4/0	19	80	.68	230	653	735
250-01THW	250	37	95	.75	255	772	880
300-01THW	300	37	95	.81	285	926	1040
350-01THW	350	37	95	.86	310	1081	1205
400-01THW	400	37	95	.90	335	1235	1365
500-01THW	500	37	95	.98	380	1544	1685
600-01THW	600	61	110	1.09	420	1853	2030
750-01THW	750	61	110	1.19	475	2316	2510
1000-01THW	1000	61	110	1.34	545	3088	3305

*Ampacity in accordance with NEC for not more than three conductors in raceway, 75°C conductor temperature and 30°C ambient in wet or dry locations.

Specification

THW

PVC Insulation, 600 Volts

1. SCOPE

1.1 This specification describes single conductor THW, a general purpose building wire insulated with polyvinyl chloride (PVC) intended for lighting and power circuits at 600 volts or less, in residential, commercial and industrial buildings. The wire may be operated at 75°C maximum continuous conductor temperature in wet or dry locations and is listed by Underwriters Laboratories for use in accordance with Article 310 of the National Electrical Code.

2. APPLICABLE SPECIFICATIONS

2.1 The following specifications form a part of this specification to the extent specified herein:

2.1.1 Underwriters Laboratories Standard 83 for Thermoplastic Insulated Wires.

2.1.2 Federal Specification J-C-30B.

3. CONDUCTORS

3.1 Conductors shall be solid or Class B stranded, annealed uncoated copper per UL Standard 83.

4. INSULATION

4.1 Each conductor shall be insulated with PVC complying with the physical and electrical requirements of UL Standard 83 for Type THW. In addition, the PVC insulation shall comply with the optional Oil Resistant I listing of UL Standard 83.

4.2 The average thickness of insulation, for a given conductor size, shall be as specified in UL Standard 83 for Type THW wire. The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free-stripping.

5. IDENTIFICATION

5.1 The wire shall be identified by surface marking indicating manufacturer's identification, conductor size and metal, voltage rating, UL Symbol, type designation and optional ratings.

6. TESTS

6.1 Wire shall be tested in accordance with the requirements of UL Standard 83 for Type THW wire and for the optional Oil Resistant listing.

7. LABELS

7.1 The wire shall bear the Underwriters Laboratories label for Type THW.