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Specification: TW/THW

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Kris-Tech Wire Co.

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- 1.0 Scope: This specification describes single conductor polyvinylchloride (PVC) insulated, 600-volt dual rated type TW/THW. It is intended for ground wire and other general purpose power wiring. It is suitable for lighting and power in residential, commercial and industrial applications with circuits at temperatures from -25°C to 75°C in wet or dry locations per NEC Article 310, NFPA Standard 70 and the California Department of Transportation (CALTRANS) specifications. This product complies with EU Directive 2002/95/EC known as ROHS.
- 2.0 Applicable Standards:
 2.1 ASTM B-1, B-3, and B-8 for copper conductors.
 2.2 Underwriters Laboratories (UL / CUL) Standards as follows: 83 (TW/THW) for Thermoplastic Insulated Wire.
- 3.0 Conductors: The single copper conductors shall be solid or stranded annealed or hard uncoated copper per UL83 and ASTM requirements.
- 4.0 Insulation: The conductor shall be insulated with PVC as specified and applied tightly to the conductor in a concentric manner. The minimum at any point shall not be less than 90% of the specified average thickness in compliance with UL 83. Alternative heavy wall insulation is available upon request as called out in the table below.
- 5.0 Identification: The wire shall be identified by surface or indent marking indicating the manufacturer, conductor size, voltage rating, UL symbol, and type designation.
- 6.0 Packaging: Standard packages are 500 ft/spool. – 4 per carton, 500 ft. knockout cartons, or 2500 feet/spool. Custom lengths are available.
- 7.0 Testing: The wire shall be continuously spark tested at 7500 Volts DC. Other electrical and mechanical tests shall be in accordance with UL 1581.

AWG	Conductor Construction	Insulation (Mils)	Alternative Insulation Thickness	Nominal Overall Diameter – Inches	Shipping Wgt. (Lbs./Mft.)
14	Solid or 7 strands	30	45	0.13/0.14	18/19
12	Solid or 7 strands	30	45	0.14/0.16	28/29
10	Solid or 7 strands	30	45	0.17/0.18	41/42
8	Solid or 7 strands	45	60	0.22/0.24	72/74
6	Solid or 7 strands	60	60	0.28/0.31	105/107
4	7 or 133 strands	60	60	0.35/0.39	160/167
2	7 or 133 strands	60	60	0.41/0.45	250/265
1	19 strands	80	80	0.54	340
1/0	19 strands	80	80	0.62	410

Non-standard STRANDING, COLORS, and CUSTOM PACKAGING are available by quotation.