

UL 5127, 5180 wire—high-temperature, abrasion resistant

UL 5127 and 5180 wires combine the outstanding performance of a PTFE (Polytetrafluoroethylene) dielectric with the mechanical toughness of served fiberglass insulation and glass outer jacket.

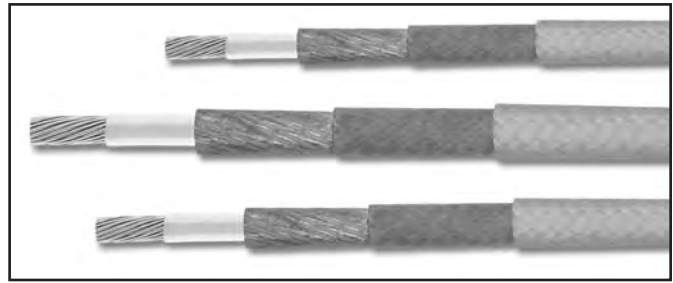
These wires are an ideal replacement for asbestos-jacketed wires in high-temperature applications such as household appliances, band/cartridge heaters, or any other high-temperature commercial, industrial, or consumer application.

This insulation system offers easy stripping with automatic equipment and high resistance to mechanical stress, abrasion, moisture, and fluids.

Performance:

Voltage rating: 600V (UL 5127);
300V (UL 5180).

Temperature rating: 250° C.



Construction Details

Jacket: PTFE-impregnated glass braid.

Insulation: Outer: two served layers of fiberglass.
Inner: PTFE tape.

Conductor: Nickel-plated copper.

Colors: Available in 10 standard colors (see page 92).

Identification: 8–18 AWG: two black marker threads under tape or braid;
20–22 AWG: No identification.

Options: Other conductor strandings—contact factory for details.

Ordering Information: Specify Thermax part number and UL style.

Dimensions, Weights, and Resistance—UL 5127 wires (600V)

AWG Size	Stranding	Conductor Diameter	Insulation Diameter	Weight	Maximum Resistance	Thermax P/N
8	133/29	.163 (4.14)	.244 (6.20)	75.9 (113)	.694 (2.28)	8-TGGT6-13329
10	37/26	.108 (2.74)	.189 (4.80)	46.7 (69.5)	1.23 (4.03)	10-TGGT6-3726
12	19/25	.084 (2.13)	.163 (4.14)	33.0 (49.1)	1.89 (6.20)	12-TGGT6-1925
14	19/27	.067 (1.69)	.146 (3.71)	23.6 (35.1)	3.00 (9.84)	14-TGGT6-1927
16	19/29	.053 (1.35)	.132 (3.35)	17.7 (26.3)	4.76 (15.6)	16-TGGT6-1929
18	19/30	.047 (1.19)	.126 (3.20)	14.5 (21.6)	6.10 (20.0)	18-TGGT6-1930
18	7/26	.048 (1.21)	.127 (3.23)	14.6 (21.7)	6.50 (21.3)	18-TGGT6-726
20	19/32	.038 (.97)	.117 (2.97)	12.3 (18.3)	9.68 (31.8)	20-TGGT6-1932
20	7/28	.038 (.97)	.117 (2.97)	12.3 (18.2)	9.96 (32.7)	20-TGGT6-728
22	19/34	.030 (.76)	.109 (2.77)	10.0 (14.9)	15.7 (51.5)	22-TGGT6-1934
22	7/30	.030 (.76)	.109 (2.77)	10.0 (14.9)	16.0 (52.5)	22-TGGT6-730

Dimensions, Weights, and Resistance—UL 5180 wires (300V)

AWG Size	Stranding	Conductor Diameter	Insulation Diameter	Weight	Maximum Resistance	Thermax P/N
8	133/29	.163 (4.14)	.232 (5.89)	71.5 (106)	.694 (2.28)	8-TGGT3-13329
10	37/26	.108 (2.74)	.177 (4.50)	43.4 (64.5)	1.23 (4.03)	10-TGGT3-3726
12	19/25	.084 (2.13)	.151 (3.84)	30.2 (44.9)	1.89 (6.20)	12-TGGT3-1925
14	19/27	.067 (1.69)	.134 (3.40)	21.1 (31.4)	3.00 (9.84)	14-TGGT3-1927
16	19/29	.053 (1.35)	.120 (3.05)	15.4 (23.0)	4.76 (15.6)	16-TGGT3-1929
18	19/30	.047 (1.19)	.114 (2.90)	13.3 (19.8)	6.10 (20.0)	18-TGGT3-1930
18	7/26	.048 (1.21)	.115 (2.92)	13.3 (19.8)	6.50 (21.3)	18-TGGT3-726
20	19/32	.038 (.97)	.105 (2.67)	10.4 (15.4)	9.68 (31.8)	20-TGGT3-1932
20	7/28	.038 (.97)	.105 (2.67)	10.3 (15.3)	9.96 (32.7)	20-TGGT3-728
22	19/34	.030 (.76)	.096 (2.44)	8.18 (12.2)	15.7 (51.5)	22-TGGT3-1934
22	7/30	.030 (.76)	.097 (2.46)	8.18 (12.2)	16.0 (52.5)	22-TGGT3-730

Dimensions in inches (mm). Weights in pounds/1000 feet (Kg/1000 M). Resistance in Ω /1,000 feet (Ω /Km), @20° C.

All values are nominal unless otherwise indicated.