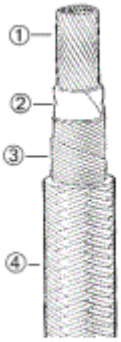
Phoenix Thermal Supply

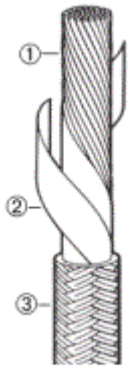
High Termperature Wire

This lead wire consists of stranded nickel plated copper conductor insulated with Teflon, glass, glass, Teflon (TGGT), or 27% nickel clad conductor insulated with glass reinforced mica (MG) for optimum dielectric strength under extreme temperatures. Both are U.L. and C.S.A. approved.

Wire Size	TGGT Part # 480° F	MG Part # 1200° F	Nominal Ampacity
20 GA	TGGT-20	MGT-20	10
18 GA	TGGT-18	MGT-18	18
16 GA	TGGT-16	MGT-16	23
14 GA	TGGT-14	MGT-14	32
12 GA	TGGT-12	MGT-12	42
10 GA	TGGT-10	MGT-10	54
8 GA	TGGT-8	MGT-8	71
6 GA	TGGT-6	MGT-6	95



TGGT
(1) Stranded or solid "A" nickel, nickel-plated copper, nickel-coated copper, nickel-plated iron.
(2) PTFE tapes
(3) Glass serving
(4) Treated glass braid



MGT
(1) Stranded or solid "A" nick
copper
(2) Mica tapes
(3) Treated glass braid

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MG Wire

Available in sizes 4 gauge through 22 gauge, 600 volt, 842°F (450°C), 30 mils wall, mica sleeving, fiberglass overbraid, flame rating FT1, tan color, sold by the foot (specifications may vary.)

FEATURES

- Cooking appliances commercial and domestic
- Electrical equipment wiring

APPLICATIONS

- Internal wiring of ovens commercial and domestic
- Electric heaters
- Equipment wiring in iron mills, steel mills, glass plants and cement kilns

CONSTRUCTION

- Flexible stranded 27% nickel plated, annealed copper
- Glass reinforced phlogopite mica tapes
- Fiberglass braid jacket is applied over the insulation, then treated with a high-temp saturant
- Natural color is tan, other colors upon request

TGGT Wire

Available in sizes 4 gauge through 22 gauge, 600 volt, 482° F (250°C), unistrip stranded, 12 mil. wall TT, 41/0100 NPC awg., Teflon sleeving, fiberglass overbraid, sold by the foot (specifications may vary.)

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Electrical Wire Maximum Amperage:		
	MG(842°F)	**TGGT(482°F)**
AWG.	* Max Amp	* Max Amp
22	17	12
20	23	16
18	31	23
16	40	29
14	55	40
12	75	55
10	100	75
8	130	95
6		

* The maximum amperage shown above is based on an average ambient temperature of 30°C (86°F). If the ambient conditions exceed this temperature, the correction factors (shown below) must be used to establish amperage ratings for each wire. Refer to the national electric code for more details.

Correction Factors:			
MG (842°F)		**TGGT (482°F)**	
Amb. Temp.	**Multiplier**	**Amb. Temp.**	**Multiplier**
212 °F	.93	140 °F	.93
392 °F	.82	176 °F	.88
572 °F	.69	212 °F	.82
662 °F	.61	257 °F	.75
752 °F	.52	302 °F	.67
842 °F	.42	392 °F	.48

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932 °F	.28	437 °F	.33
Example: MG-10 wire operated in a 750°F environment. The ampacity of the conductor at that temperature is: 100 amp x (.52) = 52 amps max.			

Ampacity Tables for High Temperature Wire
The following ampacity tables apply for the standard constructions listed below:

- Single conductor in free air, sufficiently removed from any heat source
- Ambient temperature of 30 C / 90 F.
- Temperature shown in header columns is maximum conductor temperature allowed.

Gauge	500 F TGGT	1000 F MGT
24	10	14
22	12	17
20	16	23
18	23	31
16	29	40
14	40	55
12	55	75
10	75	100
8	95	130
6		

Multiply amps at 30 C by correction factor (CF) below.			
TGGT		MGT	
Ambient Temp	CF	Ambient Temp	CF
60 C / 140 F	.93	100 C / 210 F	.93
80 C / 180 F	.88	200 C / 390 F	.82
100 C / 210 F	.82	300 C / 570 F	.69
125 C / 250 F	.75	350 C / 660 F	.61
150 C / 300 F	.67	400 C / 750 F	.52
200 C / 390 F	.48	450 C / 840 F	.42
225 C / 430 F	.33	500 C / 930 F	.28