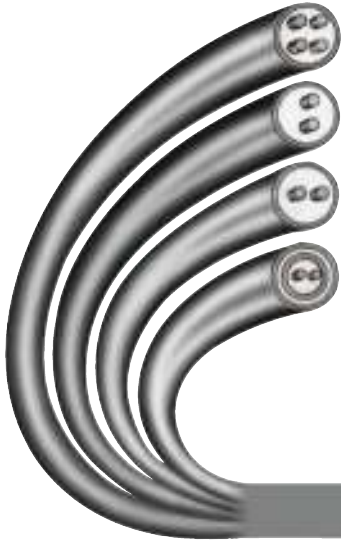




Bulk Round Heater Cable

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Typical Applications

- *Blown Film Die Heaters*
- *Heat Tracing*
- *De-icing Car Wash Door Rails*
- *De-icing Outside Stairways*

Design and Construction Specifications

Terminations

See page 5-5 for potted lead transitions. There are two choices of potting compounds. Either cement potting for a high temperature application or high temperature epoxy for 450°F (232°C) maximum temperature. Also, there are three major choices of lead wires:

- M1** — TGGT (Teflon® tape, fiberglass, Teflon® treated fiberglass overbraid) insulated lead wire for 482°F (250°C).
- M2** — Teflon® insulated lead wire, which is normally potted with a high temperature epoxy rated 450°F (232°C)
- M3** — MGT (mica tape, Teflon® treated fiberglass overbraid) insulated lead wire for 842°F (450°C).

Minimum Bending Radius

Minimum bending radius for all mineral insulated cable heaters is two times the sheath diameter.

Power Calculation

The required wattage can be calculated using the following formula:

$$\text{Wattage} = \frac{(\text{Voltage})^2}{\text{Cable length (in feet)} \times \text{Ohms/foot (from table)}}$$

Standard Single Conductor Heater Cable

| Sheath OD | | Resistance (+/-10%) | | Maximum Length | | Sheath Material | Maximum Current Allowed (Amps) | Part Number |
|-----------|------|---------------------|-----------|----------------|--------|-----------------|--------------------------------|-------------|
| in | mm | ohms/ft. | ohms/mtr. | feet | meters | | | |
| .125 | 3.17 | 0.67 | 2.2 | 250 | 75 | Inconel® 600 | 13.3 | CAS01125 |
| .125 | 3.17 | 0.72 | 2.4 | 250 | 75 | Inconel® 600 | 12.5 | CAS02125 |
| .125 | 3.17 | 0.78 | 2.6 | 250 | 75 | Inconel® 600 | 12.0 | CAS03125 |



Standard Double Conductor (Duplex) Heater Cable

| Sheath OD | | Resistance (+/-10%) | | Maximum Length | | Sheath Material | Maximum Current Allowed (Amps) | Part Number |
|-----------|------|---------------------|-----------|----------------|--------|-----------------|--------------------------------|-------------|
| in | mm | ohms/ft. | ohms/mtr. | feet | meters | | | |
| .040 | 1.00 | 37.0 | 122.0 | 500 | 152 | Inconel® 600 | 1.5 | CAW00040 |
| .055 | 1.39 | 16.4 | 54.1 | 500 | 152 | Inconel® 600 | 2.3 | CAW00055 |
| .062 | 1.59 | 13.7 | 45.2 | 400 | 121 | Inconel® 600 | 2.9 | CAW00062 |
| .062 | 1.59 | 13.2 | 43.6 | 400 | 121 | 304 SS | 3.0 | CAW01062 |
| .062 | 1.59 | 8.1 | 26.7 | 400 | 121 | 304 SS | 4.0 | CAW02062 |
| .062 | 1.59 | 7.9 | 26.1 | 400 | 121 | 304 SS | 4.1 | CAW03062 |
| .062 | 1.59 | 4.6 | 15.1 | 400 | 121 | 304 SS | 5.8 | CAW05062 |
| .064 | 1.62 | 6.5 | 21.4 | 400 | 121 | 304 SS | 4.7 | CAW04064 |
| .125 | 3.18 | 7.0 | 23.1 | 250 | 75 | 304 SS | 4.7 | CAC53125 |
| .125 | 3.18 | 3.4 | 11.2 | 250 | 75 | Inconel® 600 | 7.3 | CAW00125 |
| .147 | 3.73 | 4.8 | 15.8 | 200 | 60 | 304 SS | 5.9 | CAC53147 |
| .147 | 3.73 | 2.5 | 8.2 | 200 | 60 | Inconel® 600 | 9.0 | CAW00147 |
| .153 | 3.88 | 4.5 | 14.8 | 150 | 45 | 304 SS | 6.0 | CAC53153 |
| .153 | 3.88 | 2.3 | 7.6 | 150 | 45 | Inconel® 600 | 9.2 | CAW00153 |
| .153 | 3.88 | 1.9 | 6.3 | 150 | 45 | 304 SS | 9.7 | CAW01153 |
| .153 | 3.88 | 1.6 | 5.3 | 150 | 45 | 304 SS | 11.5 | CAW02153 |
| .153 | 3.88 | 1.4 | 4.6 | 150 | 45 | 304 SS | 13.0 | CAW03153 |
| .163 | 4.14 | 4.0 | 13.2 | 130 | 39 | 304 SS | 6.5 | CAC53163 |
| .163 | 4.14 | 1.8 | 5.9 | 130 | 39 | Inconel® 600 | 9.6 | CAW00163 |
| .163 | 4.14 | 1.7 | 5.6 | 130 | 39 | 304 SS | 10.5 | CAW01163 |
| .163 | 4.14 | 1.5 | 4.9 | 130 | 39 | 304 SS | 12.5 | CAW02163 |
| .163 | 4.14 | 1.2 | 3.9 | 130 | 39 | 304 SS | 14.0 | CAW03163 |
| .188 | 4.77 | 3.0 | 9.9 | 100 | 30 | 304 SS | 7.0 | CAC53188 |
| .188 | 4.77 | 1.5 | 5.0 | 100 | 30 | Inconel® 600 | 12.0 | CAW00188 |
| .188 | 4.77 | 1.3 | 4.3 | 100 | 30 | 304 SS | 13.3 | CAW01188 |
| .188 | 4.77 | 1.06 | 3.5 | 100 | 30 | 304 SS | 15.5 | CAW02188 |
| .188 | 4.77 | 0.86 | 2.8 | 100 | 30 | 304 SS | 17.0 | CAW03188 |
| .210 | 5.33 | 1.18 | 3.9 | 80 | 24 | Inconel® 600 | 15.4 | CAW00210 |
| .210 | 5.33 | 1.17 | 3.8 | 80 | 24 | 304 SS | 15.5 | CAW01210 |
| .210 | 5.33 | 0.84 | 2.7 | 80 | 24 | 304 SS | 18.3 | CAW02210 |
| .210 | 5.33 | 0.75 | 2.5 | 80 | 24 | 304 SS | 20.0 | CAW03210 |
| .220 | 5.59 | 2.17 | 7.1 | 75 | 22 | 304 SS | 9.5 | CAC53220 |
| .220 | 5.59 | 0.98 | 3.2 | 75 | 22 | 304 SS | 16.5 | CAW01220 |
| .220 | 5.59 | 0.76 | 2.5 | 75 | 22 | 304 SS | 19.5 | CAW02220 |
| .250 | 6.35 | 1.8 | 5.9 | 58 | 17 | 304 SS | 11.3 | CAC53250 |
| .250 | 6.35 | 0.9 | 2.9 | 58 | 17 | Inconel® 600 | 18.3 | CAW00250 |
| .250 | 6.35 | 0.87 | 2.9 | 58 | 17 | 304 SS | 20.0 | CAW01250 |
| .250 | 6.35 | 0.59 | 1.9 | 58 | 17 | 304 SS | 23.0 | CAW02250 |
| .250 | 6.35 | 0.48 | 1.6 | 58 | 17 | 304 SS | 25.0 | CAW03250 |



Note: Maximum lengths shown are manufactured lengths. Cable is shipped in random lengths unless specific lengths are ordered.