High-temperature mica, glass-braid & silicone cables

# MGT 450°C UL 5128/5107 Wire

## MGT 450 °C UL 5128 / 5107 600 V Mica-Glass Wire

450 °C 27%-nickel-clad copper mica-tape fibreglass UL appliance wire

UL AWM Style 5128 | 600 V · +450 °C | High-Temp Mica



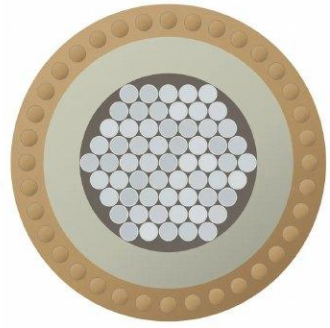
## Application

MGT 450 °C UL 5128 / 5107 combines 27% nickel-plated copper with phlogopite mica tapes and a tan heat-cured fibreglass outer braid rated 600 V and +450 °C for commercial ovens, industrial kilns, and cartridge heaters.

**Typical uses:** Steelworks, rolling mills & aluminum smelters, Industrial ovens, ceramic kilns & glassworks, Commercial heating elements & cartridge heaters, Power plants, boiler rooms & hot switchgear

## Construction



Cross-section, not to scale

| | | |
|---|---|---|
| 1 | **Conductor** | ASTM B355 Class K stranded nickel-plated copper (27% Ni high-temp) · ASTM B355 Nickel Cu |
| 2 | **Mica / PTFE tape dielectric** | Helically wrapped phlogopite mica glass tape dielectric (MGT) · UL AWM Style 5128 |
| 3 | **Fibreglass outer braid** | Tan high-temperature treated fibreglass outer braid (mica/glass) · 450 °C Continuous MGT |

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage** | 600 V | **Test voltage** | 2.5 kV AC |
| **Conductor** | Nickel-Plated Cu | **Core / dielectric** | Helically wrapped phlogopite mica glass |
| **Impedance / insulation** | ≥ 1,000 MΩ·km at 20 °C | **Temp. range (fixed)** | -60 °C to +450 °C |
| **Temp. range (flexing)** | -40 °C to +400 °C | **Peak / short-circuit** | +600 °C (short-term) |
| **Min. bending radius** | 8 × OD | **Primary performance** | 450 °C Continuous MGT |
| **Environment / duty** | UL VW-1 Flame | **Mechanical / special** | 27% Nickel-Clad Copper |
| **Outer finish** | Tan high-temperature treated fibreglass | | |

## Sizes

8 standard constructions

**Tick the sizes you need** and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

| | Conductor AWG | Outer Ø ≈ mm | Max. R20 Ω/km | Copper index kg/km | Weight ≈ kg/km | Min. bend R 8×D mm |
|---|---|---|---|---|---|---|
| ☐ | 1×18 AWG | 2.7 | 25.984 | 8 | 20 | 22 |
| ☐ | 1×16 AWG | 3.0 | 16.464 | 12 | 28 | 24 |
| ☐ | 1×14 AWG | 3.5 | 10.158 | 19 | 43 | 28 |
| ☐ | 1×12 AWG | 4.0 | 6.395 | 31 | 66 | 32 |
| ☐ | 1×10 AWG | 4.6 | 4.021 | 49 | 99 | 37 |
| ☐ | 1×8 AWG | 5.4 | 2.531 | 78 | 153 | 43 |
| ☐ | 1×6 AWG | 6.4 | 1.590 | 124 | 237 | 51 |
| ☐ | 1×4 AWG | 7.7 | 0.999 | 197 | 371 | 62 |

- Conductor DC resistance R20 at 20 °C per ASTM B355 Nickel Cu.
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom terminations available on request.

## Standards and approvals

- UL AWM Style 5128
- UL AWM Style 5107
- CSA AWM I A/B
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

## Certifications

**Management systems:** ISO 9001, ISO 14001, ISO 45001

### Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
**+86 185 9591 3361**

Email
**info@tebaoflex.com**

Web
**tebaoflex.com/cables/mgt-450c-ul-5128-5107-600v-mica-glass-wire**

Typical values for this cable type, based on UL AWM Style 5128 · UL AWM Style 5107 · CSA AWM I A/B. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.