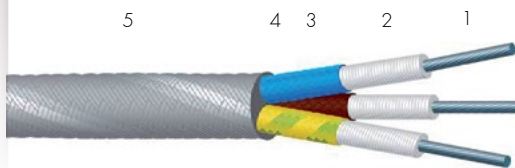


HIGH TEMPERATURE WIRES AND CABLES  
FOR THE GENERAL MARKET  
SECTION III: COMPOSITE INSULATIONS

# SILICABLE® MA-CNVAS

-60 °C to +400 °C

MULTI-CONDUCTOR WIRES AND CABLES  
WITH COMPOSITE INSULATION



- 1 • Stranded nickel-plated copper core.
- 2 • Silicone impregnated fibreglass lappings.
- 3 • Silicone-coated mineral fibre braid.
- 4 • Fillers optional, not shown.
- 5 • Silicone-coated mineral fibre braid.

## Approvals - standards

- Nickel-plated copper complying with the 2% class as per standard ASTM B355.
- Halogen-free: IEC 60754-1 / EN 50267-2-1.
  - Fire retardant: NF C 32-070 test C1.
  - Resistance to vertical flame propagation for an insulated cable: IEC 60332-1-2 / EN 50265-2-1 / NF C 32-070 test C2.

## Applications

- All cabling in hot atmospheres up to 400 °C.
- Cabling in the metallurgical industry, glassworks, etc.
- Cabling for industrial furnaces and air ovens, machines for thermoplastics or rubber, welding stations, etc.
  - Cabling for heating resistors, cartridges, bands and plates.

## Options

- Other nominal cross-sections and flexibility classes: contact us.
- Other numbers of conductors: contact us.
  - Bare copper cores: ref. MA-VAS.
  - 27% nickel-plated copper cores as per ASTM B355: contact us.
    - Outer flexible armour:
      - > Galvanised steel braid: ref. BGMA-CNVAS.
      - > Stainless steel braid: ref. BIMA-CNVAS.
        - Electrical shielding:
- > Nickel-plated copper braid: ref. MABCN-CNVAS.
  - Other options and/or combinations of the options outlined above: contact us.

## Characteristics

### General

- Continuous operating temperatures: -60 °C to +400 °C.
- Good resistance to thermal shock.
- Excellent ageing.

### Electrical

- Rated voltage: 300/500 V.
- Test voltage: 2000 V.

## Standard products

- Standard conductor colours: see table below.
- Standard outer braid colour: grey.
- Some cables may include a fibreglass tape or other separating tape under the outer braid.

### Standard conductor colours

| Number of conductors | Standard conductor colours                          |  |
|----------------------|---|--|
|                      | With an earth wire                                  | Without an earth wire                        |
| 2                    | -   | Blue – Brown (or Grey)                       |
| 3                    | Yellow/Green – Blue – Brown (or Grey)               | Brown – Black – Grey (or Blue)               |
| 4                    | Yellow/Green – Brown – Black – Grey (or Blue)       | Blue – Brown – Black – Grey                  |
| 5                    | Yellow/Green – Blue – Black – Grey – Brown (or Red) | Blue – Brown – Black – Grey – Black (or Red) |
| ≥6                   | Yellow/Green – Grey or White non-numbered           | Grey or White non-numbered                   |

### Identification

Multi-conductor cables without an earth wire are identified as follows:

< Number of conductors > X < Cross-section > mm<sup>2</sup> (example: 3 X 1.5 mm<sup>2</sup>).

Multi-conductor cables with an earth wire are identified by the symbol G in the place of the X (example 3 G 1.5 mm<sup>2</sup>).

For this product, please contact:

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**omerin**  
LES CABLES DE L'EXTREME

The information provided in this technical data sheet is indicative and may be modified without prior notice, laying, wiring and electrical conditions and the environment of the cable can not be fully considered in our studies. In no way the company OMERIN shall be held responsible for any incidents in the case of inappropriate uses, particularly in the case of wiring conditions that do not respect the good practice and the standards in force. For an optimum use of the cables produced by our company, we recommend testing in real conditions. Our sales department is available for a possible provision of samples, and/or for the conditions of a complete study in our laboratories.

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## Conducting core

## INSULATED CONDUCTORS

## SHEATHED CABLE

| Nominal cross-section (mm <sup>2</sup> ) | Nominal stranding | Maximum linear resistance at 20 °C (Ω/km) | Nominal thickness of insulation (mm) | Nominal diameter of the conductor (mm) | Nominal diameter of the cable (mm) | Approximate linear weight (kg/km) |
|--|-------------------|---|--------------------------------------|--|------------------------------------|-----------------------------------|
| 2 x 0.5                                  | 7 x 0.30          | 36.7                                      | 0.8                                  | 2.5                                    | 6.5                                | 39.5                              |
| 3 x 0.5                                  | 7 x 0.30          | 36.7                                      | 0.8                                  | 2.5                                    | 6.9                                | 55.1                              |
| 4 x 0.5                                  | 7 x 0.30          | 36.7                                      | 0.8                                  | 2.5                                    | 7.5                                | 65.4                              |
| 5 x 0.5                                  | 7 x 0.30          | 36.7                                      | 0.8                                  | 2.5                                    | 8.2                                | 80.0                              |
| 7 x 0.5                                  | 7 x 0.30          | 36.7                                      | 0.8                                  | 2.5                                    | 9.0                                | 101                               |
| 2 x 0.75                                 | 11 x 0.30         | 24.8                                      | 0.8                                  | 2.7                                    | 6.9                                | 57.2                              |
| 3 x 0.75                                 | 11 x 0.30         | 24.8                                      | 0.8                                  | 2.7                                    | 7.3                                | 63.3                              |
| 4 x 0.75                                 | 11 x 0.30         | 24.8                                      | 0.8                                  | 2.7                                    | 8.0                                | 80.4                              |
| 5 x 0.75                                 | 11 x 0.30         | 24.8                                      | 0.8                                  | 2.7                                    | 8.7                                | 100                               |
| 7 x 0.75                                 | 11 x 0.30         | 24.8                                      | 0.8                                  | 2.7                                    | 9.7                                | 126                               |
| 2 x 1                                    | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 7.9                                | 71.1                              |
| 3 x 1                                    | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 8.4                                | 86.0                              |
| 4 x 1                                    | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 9.2                                | 107                               |
| 5 x 1                                    | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 10.2                               | 136                               |
| 7 x 1                                    | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 11.1                               | 170                               |
| 12 x 1                                   | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 14.8                               | 283                               |
| 19 x 1                                   | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 17.5                               | 442                               |
| 24 x 1                                   | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 20.7                               | 538                               |
| 27 x 1                                   | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 21.2                               | 606                               |
| 37 x 1                                   | 14 x 0.30         | 18.2                                      | 0.9                                  | 3.2                                    | 23.9                               | 830                               |
| 2 x 1.5                                  | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 8.3                                | 83.7                              |
| 3 x 1.5                                  | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 8.6                                | 108                               |
| 4 x 1.5                                  | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 9.0                                | 130                               |
| 5 x 1.5                                  | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 9.6                                | 166                               |
| 7 x 1.5                                  | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 10.6                               | 213                               |
| 12 x 1.5                                 | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 15.6                               | 356                               |
| 19 x 1.5                                 | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 18.5                               | 558                               |
| 24 x 1.5                                 | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 21.9                               | 711                               |
| 27 x 1.5                                 | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 22.4                               | 730                               |
| 37 x 1.5                                 | 21 x 0.30         | 12.2                                      | 0.9                                  | 3.4                                    | 25.3                               | 1001                              |
| 2 x 2.5                                  | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 9.5                                | 101                               |
| 3 x 2.5                                  | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 10.0                               | 149                               |
| 4 x 2.5                                  | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 11.2                               | 180                               |
| 5 x 2.5                                  | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 12.3                               | 221                               |
| 7 x 2.5                                  | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 13.5                               | 275                               |
| 12 x 2.5                                 | 35 x 0.30         | 7.56                                      | 0.9                                  | 4.0                                    | 18.1                               | 467                               |
| 2 x 4                                    | 56 x 0.30         | 5.09                                      | 1.0                                  | 4.5                                    | 10.5                               | 162                               |
| 3 x 4                                    | 56 x 0.30         | 5.09                                      | 1.0                                  | 4.5                                    | 11.2                               | 217                               |
| 4 x 4                                    | 56 x 0.30         | 5.09                                      | 1.0                                  | 4.5                                    | 12.4                               | 262                               |
| 5 x 4                                    | 56 x 0.30         | 5.09                                      | 1.0                                  | 4.5                                    | 13.7                               | 332                               |
| 7 x 4                                    | 56 x 0.30         | 5.09                                      | 1.0                                  | 4.5                                    | 15.0                               | 440                               |
| 2 x 6                                    | 84 x 0.30         | 3.39                                      | 1.0                                  | 5.0                                    | 11.5                               | 200                               |
| 3 x 6                                    | 84 x 0.30         | 3.39                                      | 1.0                                  | 5.0                                    | 12.3                               | 289                               |
| 4 x 6                                    | 84 x 0.30         | 3.39                                      | 1.0                                  | 5.0                                    | 13.6                               | 340                               |
| 5 x 6                                    | 84 x 0.30         | 3.39                                      | 1.0                                  | 5.0                                    | 15.1                               | 434                               |
| 7 x 6                                    | 84 x 0.30         | 3.39                                      | 1.0                                  | 5.0                                    | 16.5                               | 569                               |
| 2 x 10                                   | 80 x 0.40         | 1.95                                      | 1.6                                  | 8.0                                    | 17.5                               | 350                               |
| 3 x 10                                   | 80 x 0.40         | 1.95                                      | 1.6                                  | 8.0                                    | 18.7                               | 467                               |
| 4 x 10                                   | 80 x 0.40         | 1.95                                      | 1.6                                  | 8.0                                    | 20.8                               | 668                               |
| 2 x 16                                   | 126 x 0.40        | 1.24                                      | 1.7                                  | 9.0                                    | 19.5                               | 593                               |
| 3 x 16                                   | 126 x 0.40        | 1.24                                      | 1.7                                  | 9.0                                    | 20.9                               | 790                               |
| 4 x 16                                   | 126 x 0.40        | 1.24                                      | 1.7                                  | 9.0                                    | 23.2                               | 936                               |
| 2 x 25                                   | 196 x 0.40        | 0.795                                     | 1.8                                  | 10.6                                   | 22.7                               | 748                               |
| 3 x 25                                   | 196 x 0.40        | 0.795                                     | 1.8                                  | 10.6                                   | 24.3                               | 1122                              |
| 4 x 25                                   | 196 x 0.40        | 0.795                                     | 1.8                                  | 10.6                                   | 27.1                               | 1496                              |
| 2 x 35                                   | 276 x 0.40        | 0.565                                     | 2.2                                  | 13.0                                   | 27.5                               | 1132                              |
| 3 x 35                                   | 276 x 0.40        | 0.565                                     | 2.2                                  | 13.0                                   | 29.4                               | 1650                              |
| 4 x 35                                   | 276 x 0.40        | 0.565                                     | 2.2                                  | 13.0                                   | 32.9                               | 2264                              |