

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

SILICABLE® 450 °C Composite insulation UL and cUL approval



Characteristics General

- Maximum continuous operating temperature: +450 °C.
- Good resistance to thermal shocks and oxidization.

Electrical

- Rated voltage: as per style no. (see opposite table).
- Test voltage: as per style no.

Standard products

- Standard colours: grey, brown or natural.
- Stranding of conducting cores: contact us.

Approvals - standards

- UL approval as per standard UL 758 – File no.: E101965.
- cUL approval (CSA) as per standard C22.2 No. 210 - File no.: E101965.
- Nickel-plated copper complying with the 27% class as per standard ASTM B355.
- Nickel type 200 as per standard ASTM B160.
 - "Horizontal flame test" as per UL approval.
 - "FT2 flame rating" as per cUL approval.

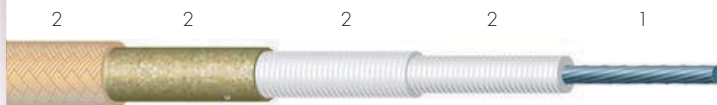
Applications

- Cabling for industrial furnaces and air ovens.
 - Cabling for heating resistors, cartridges, bands and plates.
- Cabling for domestic or professional electrical appliances.

Options

- Other colours: contact us.
- Individual or general electrical shielding: contact us.
- Multi-conductor cables (Styles no. 5128, 5107, 5283, 5335): contact us.
- Other style nos. available: style no. 5158.

UNIPOLAR WIRES AND CABLES WITH COMPOSITE INSULATION



- 1 • Nickel or nickel-plated copper core.
- 2 • Composite insulation: Mica tape(s) and/or fibreglass lapping + varnished fibreglass braid.

Style no.		5168		5334		5128	
Approval		450 °C – 300 V		450 °C – 300 V		450 °C – 300 V	
Nominal cross-section AWG	(mm²)	Average thickness of insulation (mm)	Nominal diameter* (mm)	Average thickness of insulation (mm)	Nominal diameter* (mm)	Average thickness of insulation (mm)	Nominal diameter* (mm)
30	0.05	-	-	-	-	-	-
28	0.09	-	-	-	-	-	-
26	0.13	-	-	-	-	-	-
24	0.22	0.43	1.7	0.56	2.0	0.56	1.9
22	0.34	0.43	1.9	0.56	2.1	0.56	2.0
-	0.5	0.43	2.0	0.56	2.3	0.56	2.2
20	0.6	0.43	2.1	0.56	2.4	0.56	2.2
-	0.75	0.43	2.3	0.56	2.5	0.56	2.4
18	0.93	0.43	2.3	0.56	2.6	0.56	2.5
-	1	0.43	2.4	0.56	2.7	0.56	2.5
16	1.34	0.43	2.6	0.56	2.9	0.56	2.8
-	1.5	0.43	2.7	0.56	3.0	0.56	2.8
14	-	0.43	3.0	0.56	3.2	0.56	3.1
-	2.5	0.43	3.2	0.56	3.4	0.56	3.3
12	-	0.43	3.5	0.56	3.7	0.56	3.6
-	4	0.43	3.7	0.56	4.0	0.56	3.8
10	-	0.89	5.2	0.76	4.9	0.89	5.4
-	6	0.89	5.3	0.76	5.0	0.89	5.5
8	-	0.89	6.0	0.76	5.8	0.89	6.1
-	10	0.89	6.5	0.76	6.2	0.89	6.5
6	-	0.89	7.2	0.76	6.9	0.89	7.2
-	16	0.89	7.7	0.76	7.4	0.89	7.7
4	-	0.89	8.7	0.76	8.4	0.89	8.7
-	25	0.89	9.1	0.76	8.8	0.89	9.1
2	35	1.09	10.9	-	-	-	-
1	-	1.09	11.8	-	-	-	-
-	50	1.09	12.5	-	-	-	-
1/0	-	1.09	13.0	-	-	-	-
2/0	70	1.09	14.4	-	-	-	-
3/0	-	1.09	15.6	-	-	-	-
-	95	1.09	16.4	-	-	-	-
4/0	-	1.09	17.1	-	-	-	-
-	120	1.09	18.0	-	-	-	-
Conducting metal		EG		EG		EG	

For this product, please contact:

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KEY

Conducting metals
B Tin-plated copper
B* Tin-plated copper (ø > 0.38 mm)
C Nickel-plated copper
D Silver-plated copper
E Nickel
F Bare copper
F* Bare copper (ø > 0.38 mm)
G Nickel-plated copper 27 %

AWM I A Internal wiring, not subject to mechanical abuse
AWM I A/B Internal wiring
AWM II A/B External or Internal wiring

NS Not Specified
VNS Voltage Not Specified

■: UL approved nominal cross-sections only.

* The diameter is provided for information purposes as it may vary depending on the stranding of the core. Only the average thickness of insulation should be taken into account.

Style no.		5335		5107		5138	
Approval		450 °C – 600 V		450 °C – 600 V		450 °C – 600 V	
Nominal cross-section AWG	(mm ²)	Average thickness of insulation (mm)	Nominal diameter* (mm)	Average thickness of insulation (mm)	Nominal diameter* (mm)	Average thickness of insulation (mm)	Nominal diameter* (mm)
30	0.05	-	-	-	-	-	-
28	0.09	-	-	-	-	-	-
26	0.13	-	-	0.81	2.3	-	-
24	0.22	-	-	0.81	2.4	-	-
22	0.34	0.71	2.4	0.81	2.6	-	-
-	0.5	0.71	2.6	0.81	2.7	-	-
20	0.6	0.71	2.6	0.81	2.8	-	-
-	0.75	0.71	2.8	0.81	3.0	-	-
18	0.93	0.71	2.9	0.81	3.0	1.57	4.6
-	1	0.71	2.9	0.81	3.1	1.57	4.7
16	1.34	0.71	3.2	0.81	3.3	1.57	4.9
-	1.5	0.71	3.2	0.81	3.4	1.57	5.0
14	-	0.71	3.5	0.81	3.7	1.57	5.2
-	2.5	0.71	3.7	0.81	3.9	1.57	5.4
12	-	0.71	4.0	0.81	4.2	1.57	5.7
-	4	0.71	4.2	0.81	4.4	1.57	6.0
10	-	0.94	5.3	1.14	5.8	1.57	6.6
-	6	0.94	5.5	1.14	6.0	1.57	6.8
8	-	0.94	6.1	1.14	6.6	2.08	8.9
-	10	0.94	6.4	1.14	7.0	2.08	9.1
6	-	0.94	7.2	1.14	7.7	2.08	9.9
-	16	0.94	7.6	1.14	8.1	2.08	10.3
4	-	0.94	8.7	1.14	9.2	2.08	11.4
-	25	0.94	9.0	1.14	9.6	2.08	11.7
2	35	1.19	10.8	1.40	11.4	2.08	13.0
1	-	1.19	11.7	1.40	12.3	-	-
-	50	1.19	12.5	1.40	13.0	-	-
1/0	-	1.19	12.9	1.40	13.5	-	-
2/0	70	1.19	14.3	1.40	14.9	-	-
3/0	-	1.19	15.6	1.40	16.1	-	-
-	95	1.19	16.3	1.40	16.9	-	-
4/0	-	1.19	17.1	1.40	17.6	-	-
-	120	1.19	17.9	1.40	18.5	-	-
Conducting metal		EG		EG		G	

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