

**SILIFLON®**  
**51YA and 51YS****VDE approval**  
**-90 °C to +250 °C****Approvals - standards**

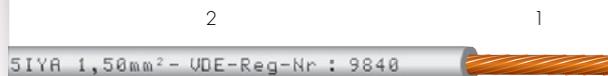
- 51YA: VDE approval as per standard DIN VDE 0250 Part 106 - Licence no. 106488.
- 51YS: VDE approval as per standard DIN VDE 0250 Part 106 - Licence no. 106489.

**Applications**

- Cabling in household electrical appliances, electronics.
  - Cabling in hot or cold environments (cryogenics).
- Cabling in aggressive environments (humidity, chemicals, etc.).
  - Cabling requiring compact size and excellent mechanical strength.

**Options**

- Flexible tin-plated copper core – ref. E51YA and E51YS: contact us.
- Flexible nickel-plated copper core – ref. CN51YA and CN51YS: contact us.
- Flexible silver-plated copper core – ref. A51YA and A51YS: contact us.
  - Solid bare copper core – ref. R51YA and R51YS: see details of the option below.
- Solid tin-plated copper core – ref. RE51YA and RE51YS: contact us.



- 1 • Flexible bare copper core – class 5 as per IEC 60228 / DIN VDE 0295.
- 2 • Insulation: Fluorinated polymer PFA.

**Characteristics**  
**General**

- Continuous operating temperatures:
  - > Bare copper core: -90 °C to +130 °C.
  - > Tin-plated copper core: -90 °C to +180 °C.
  - > Silver-plated copper core: -90 °C to +200 °C.
  - > Nickel-plated copper core: -90 °C to +250 °C.
- Excellent resistance to aggressive chemical environments.
- Excellent resistance to humidity and UV.
- Excellent mechanical strength.

**Electrical**

- |                  | <b>51YA</b> | <b>51YS</b> |
|------------------|-------------|-------------|
| • Rated voltage: | 450/750 V   | 300/500 V.  |
| • Test voltage:  | 2500 V      | 2000 V.     |

**Standard products**

- All colours including translucent.

**51YA and 51YS****Flexible core • class 5 as per IEC 60228**

Nominal cross-section (mm²)	Nominal stranding	Maximum linear resistance at 20 °C (Ω/km)
0.25*	19 x 0.13 or 7 x 0.22	79.9
0.5	16 x 0.20	39.0
0.75	24 x 0.20	26.0
1	32 x 0.20	19.5
1.5	30 x 0.25	13.3
2.5	50 x 0.25	7.98
4	56 x 0.30	4.95
6	84 x 0.30	3.30

**INSULATED WIRES**

<b>51YA</b>			<b>51YS</b>		
Nominal thickness of insulation (mm)	Nominal diameter (mm)	Approximate linear weight (kg/km)	Nominal thickness of insulation (mm)	Nominal diameter (mm)	Approximate linear weight (kg/km)
0.40	1.45	5.1	0.30	1.25	4.2
0.40	1.7	7.6	0.30	1.5	6.5
0.40	1.85	9.9	0.30	1.65	8.7
0.40	2.0	12.2	0.30	1.8	10.9
0.50	2.4	17.9	0.30	2.0	14.9
0.60	3.1	29.8	0.35	2.6	25.0
0.60	3.8	46.7	0.40	3.4	41.9
0.60	4.3	65.6	0.40	3.9	60.1

**Option • R51YA and R51YS****Solid core • class 1 as per IEC 60228**

Nominal cross-section (mm²)	Nominal diameter (mm)	Maximum linear resistance at 20 °C (Ω/km)
0.25*	1 x 0.56	74.5
0.5	1 x 0.80	36.0
0.75	1 x 0.98	23.1
1	1 x 1.13	18.1
1.5	1 x 1.36	12.1
2.5	1 x 1.77	7.41
4	1 x 2.24	4.61
6	1 x 2.74	3.08

<b>R51YA</b>			<b>R51YS</b>		
Nominal thickness of insulation (mm)	Nominal diameter (mm)	Approximate linear weight (kg/km)	Nominal thickness of insulation (mm)	Nominal diameter (mm)	Approximate linear weight (kg/km)
0.40	1.35	4.8	0.30	1.15	3.9
0.40	1.6	7.8	0.30	1.4	6.8
0.40	1.8	10.6	0.30	1.6	9.5
0.40	1.95	13.3	0.30	1.75	12.0
0.50	2.4	19.7	0.30	2.0	16.7
0.60	3.0	32.1	0.35	2.5	27.4
0.60	3.45	47.1	0.40	3.05	42.7
0.60	3.95	66.7	0.40	3.55	61.7

For this product, please contact:

\* Nominal cross-section not described in IEC 60228.

**OMERIN** division principale

Zone Industrielle - F 63600 Ambert  
Tel. +33 (0)4 73 82 50 00 - Fax +33 (0)4 73 82 50 10  
omerin@omerin.com

[www.omerin.com](http://www.omerin.com)

**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.  
© Registered trademark of the OMERIN Group. Drawings and photos are not contractual. Reproduction is prohibited without the prior agreement of OMERIN.