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CABLES SOLUTIONS  
FOR AUTOMOTIVE AND E-MOBILITY

**omerin**  
LES CABLES DE L'EXTREME

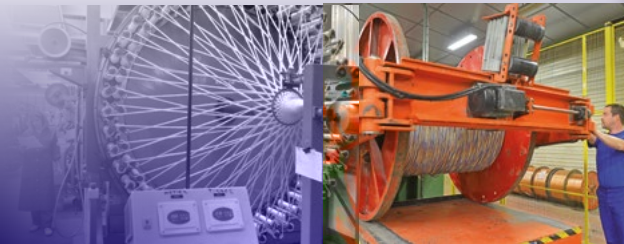


- The world's leading manufacturer of silicone-insulated wires and cables
- Europe's leading manufacturer of glass-yarn braids
- France's leading manufacturer of fire safety cables

**The Omerin group has been producing electrical cables for extreme conditions since 1959**

**At Omerin, we use our know-how and technology to develop increasingly high-performance products.**

**Our expertise is recognized in over 120 countries.**



Omerin offers a wide range of high-performance products covering a large number of applications in very diverse industries, including the electrothermal construction, electromechanical, chemical, nuclear energy, railway, automotive, naval, aerospace, heavy industry, power plant and other sectors.

Our product range is further extended by varnished, impregnated and treated braided insulating sleeveings, door seals for ovens, fireproof sleeveings, thermocouple, extension and compensation cables as well as industrial braids.



### **Men and Women at your service**

The technical expertise of our teams is at your disposal, providing responses and solutions to all your requirements.

Our Methods, Quality and Research and Development Departments work permanently together with the aim of constantly improving our products and processes.

All our staff subscribe to this approach with their involvement and constant self-checking at all stages of production.

#### **List of all the available catalogues:**

**HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET**

1

**SECTION I: CROSS LINKED ELASTOMERS**

**HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET**

2

**SECTION II: FLUOROPOLYMERS AND THERMOPLASTICS**

**HIGH TEMPERATURE WIRES AND CABLES FOR THE GENERAL MARKET**

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**SECTION III: COMPOSITE INSULATIONS**

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**MARINE CABLES**

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**CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY**

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**PACKAGING AND TECHNICAL DATA**

Ultimately, this catalogue is the result of the passionate endeavours of an entire team, who have displayed great talent in writing it for you.

It is designed to be a simple and concise working tool for you, serving as a reference document that is able to meet the majority of your needs.

This catalogue, as well as eleven others from our collection are available on line with real time updates and much more information at

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



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**BIO-HABITAT®** Wires and cables for a home without electromagnetic interference

**CERAFIL®** Miniature ceramic insulated wires for very high temperatures

**COAXRAIL®** Coaxial cables for railway industry

**COAXTHERM®** High temperature coaxial cables

**COUPLIX®** Pyrometry cables (thermocouples, extension, compensation cables)

**DATARAIL®** Data cables for the railway industry

**ELECTROAIR®** Aerospace & Defence wires and cables

**ENERSYL®** Electrical cables for power station and high risk sites

**FLEXBAT®** Extra flexible battery cables

**LUMIPLAST®** Wires and cables for lighting systems

**METALTRESSE®** High performance metallic braids

**MINOROC®** Very high tensile strength synthetic cables

**MULTIMAX®** Power, control and instrumentation cables for the marine industry

**MULTI-VX®** Hybrid data and power cables

**ODIOSIS®** Sound, amplification and speaker cables

**OILPLAST®** Cables for industrial environments and intrinsically safe circuits

**OMBILIFLEX®** High performance special multi-function cables

**PLASTHERM®** Special thermoplastic insulated wires and cables

**POWER CONNECT®** High performance power cords

**PROFIPLAST®** Thermoplastic insulated wires and cables

**PYRISOL®** Fire resistant power cables for safety circuits

**PYRITEL®** Fire resistant communication cables for safety circuits

**SILIBOX®** Wire and cables cardboard box packaging system

**SILICABLE®** Special high temperature wires and cables

**SILICOUL®** Low and medium voltage class H (180°C) power cables

**SILIFLAM®** Very high safety cables for extreme temperatures

**SILIFLON®** Fluoropolymer insulated high temperature wires and cables

**SILIGAIN®** Braided insulating sleeveings

**SILIRAD®** Electron beam cross-linked cables

**SILITUBE®** Braided or extruded tubes

**SOLARPLAST®** Power cables for photovoltaic solar panels

**SONDIX®** Platinum resistance temperature sensors connection cables

**SPIRFLEX®** High performance spiral cables

**TEXALARM®** Cables for safety systems and fire alarms

**TS CABLES®** Coaxial and data cables

**TS COM 900®** Twisted pair cables for high-speed packet transmission

**TS LAN®** Copper LAN cables

**TWINLINK®** High temperature controlled impedance twisted pair cables

**TWINPLAST®** Extra flexible cables for battery chargers or jump starters

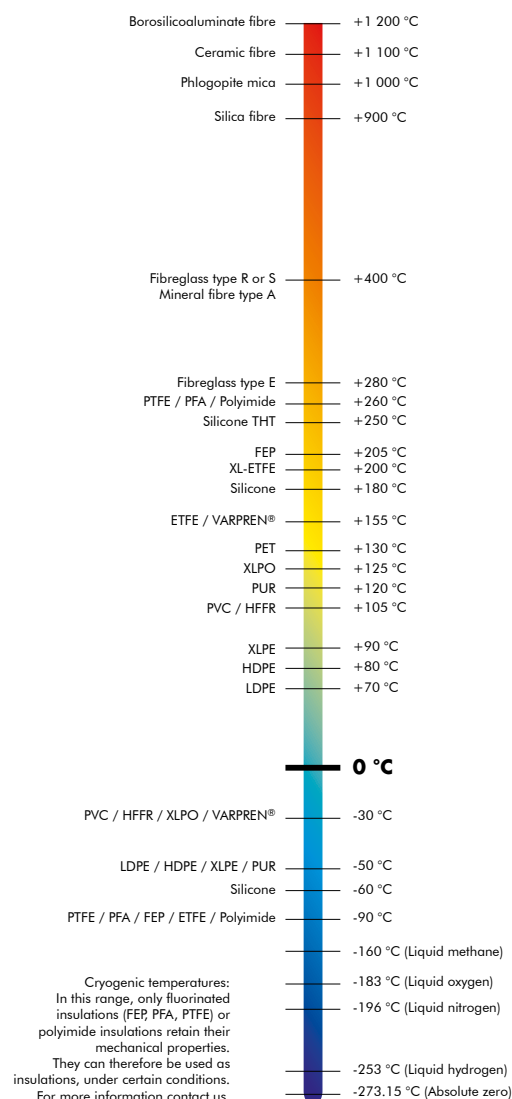
**VARPREN®** Wires and cables with special cross-linked Varpren® insulation

**VEROX®** Fiberglass braided seals

**VIDEOCOAX®** Analog and digital video cables



## Thermal classification of insulations



# Coding Chart

## Automotive Wires & Cables

<b>1 TYPE CODE</b>	<b>FL</b> <b>FHL</b> <b>FZL</b>	Low voltage automotive cables High voltage automotive cables Ignition automotive cables
<b>2 CORE CODE</b>	- <b>AL</b> <b>M</b> <b>W</b>	Electrolytic copper core (plain, tinned-copper or silver-plated / nickel-plated copper) Aluminium core Material other than E-Cu, Aluminium and resistance conductors Resistance conductors (for resistance ignition cables)
<b>3 INSULATION CODE</b>	- <b>R</b> <b>U</b> <b>S</b>	Thick wall of insulation thickness according to ISO 6722 and ISO 19642 Thin wall of insulation thickness according to ISO 6722 and ISO 19642 Ultra-thin wall of insulation thickness according to ISO 6722 and ISO 19642 Special wall of insulation thickness (undefined according to ISO 6722 and ISO 19642)
<b>4 MATERIAL CODE</b>	THERMOPLASTIC & THERMOPLASTIC ELASTOMER	<b>Y</b> PVC +105°C <b>YK</b> PVC +105°C with cold resistance according to ISO 6722 and ISO 19642 <b>YW</b> PVC +125°C with heat resistance according to ISO 6722 and ISO 19642 <b>2Y</b> Polyethylene <b>4Y</b> Polyamide <b>5Y</b> Polytetra fluor ethylene <b>6Y</b> Fluorinated ethylene propylene <b>7Y</b> Ethylene tetrafluoroethylene <b>9Y</b> Polypropylene <b>10Y</b> Polyvinylidenfluorid <b>11Y</b> Polyurethane & Thermoplastic elastomer with polyurethane basis <b>12Y</b> Polybutylenterephthalat <b>13Y</b> Thermoplastic elastomer with polyester ester basis <b>31Y</b> Thermoplastic elastomer with polystyrene basis <b>51Y</b> Perfluoroalkoxy copolymer <b>52Y</b> Copolymer of tetrafluoroethylene and perfluoromethylvinyl ether <b>91Y</b> Thermoplastic elastomer with polyolefin basis
		<b>X</b> PVC crosslinked <b>2X</b> PE crosslinked <b>7X</b> ETFE crosslinked <b>10X</b> Polyvinylidenfluorid crosslinked <b>41X</b> Special polyolefin crosslinked <b>91X</b> TPE-O crosslinked
		<b>2G</b> SILICONE <b>3G</b> EPDM <b>4G</b> EVA <b>5G</b> CR
<b>5 SHIELDING CODE</b>	<b>B</b> <b>C</b> <b>D</b> <b>F</b> <b>T</b>	Taped screen Copper braid shield (plain, tinned, silver-plated, nickel-plated / copper) Copper spiral shield (plain, tinned, silver-plated, nickel-plated - copper) Non metallic tape Textile braid
<b>6 CODES COMPOSITION</b>	<b>A</b> <b>B</b> <b>C</b> -	Symmetric core composition according to ISO 6722 and ISO 19642 Asymmetric core composition according to ISO 6722 and ISO 19642 Multi-strand composition according to ISO 6722 and ISO 19642 No code – for core composition undefined according to ISO 6722 and ISO 19642 (for example IEC 60228)

## LOW VOLTAGE SINGLE CORE CABLES

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## HIGH TEMPERATURE BRAIDED SLEEVINGS

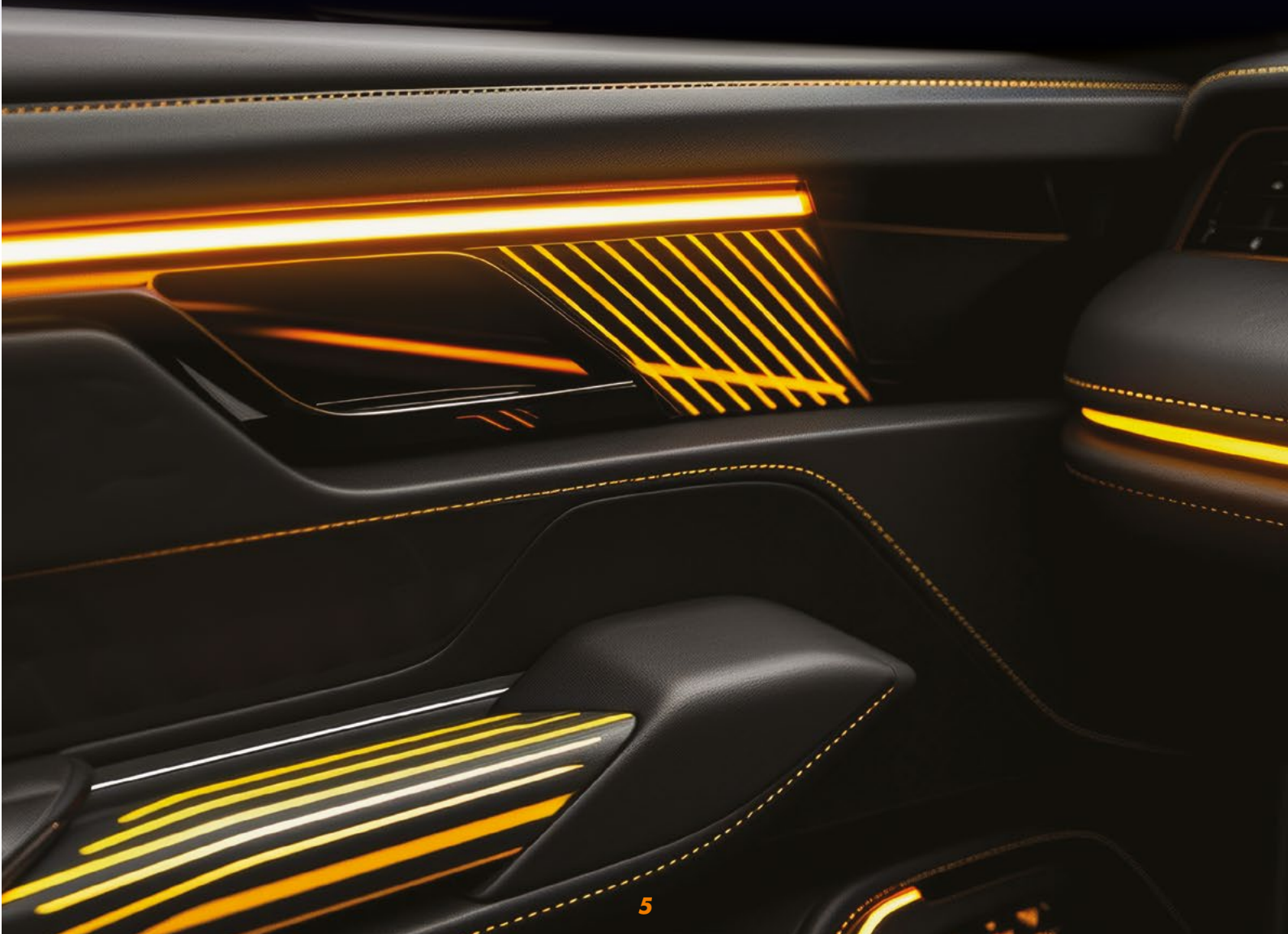
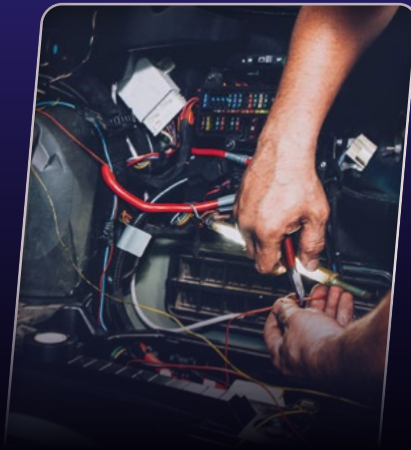
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LOW VOLTAGE  
SINGLE CORE  
CABLES

HIGH TEMPERATURE AREAS  
PASSENGER COMPARTMENT



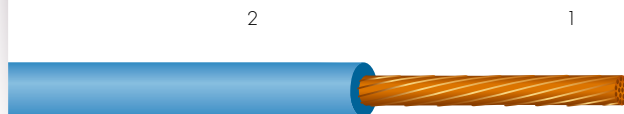
# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# PLASTHERM® FLRY

## -40°C to +105°C

### Class B according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • PVC 105°C insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602

### Applications

- Low voltage wires for general automotive wiring.

### Specific characteristics

- Version with a reduced insulation according to ISO 6722-1 and ISO 19642-3

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal cross section (mm <sup>2</sup> )	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.13	7 x 0.16	-	0.25	0.20	1.05	136	140
0.22	7 x 0.21	-	0.25	0.20	1.20	84.8	86.5
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23
8	-	50 x 0.46	0.40	0.32	5.00	2.38	2.52
10	-	80 x 0.41	0.60	0.48	6.00	1.82	1.85
12	-	96 x 0.41	0.60	0.48	6.50	1.52	1.60
16	-	126 x 0.41	0.65	0.52	7.20	1.16	1.18
20	-	152 x 0.41	0.65	0.52	7.80	0.955	0.999
25	-	196 x 0.41	0.65	0.52	8.70	0.743	0.757
30	-	224 x 0.41	0.80	0.64	9.60	0.647	0.684
35	-	276 x 0.41	0.80	0.64	10.40	0.527	0.538
40	-	308 x 0.41	0.90	0.71	11.10	0.473	0.500
50	-	396 x 0.41	0.90	0.71	12.20	0.368	0.375
60	-	296 x 0.51	1.00	0.80	13.30	0.315	0.333
70	-	360 x 0.51	1.00	0.80	14.40	0.259	0.264
95	-	475 x 0.51	1.10	0.90	16.70	0.196	0.200

\* The outside wire diameter for 0.35 mm<sup>2</sup> Type A with 7 strands shall be max 1.30 mm.

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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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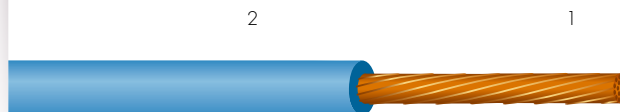
# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# PLASTHERM® FLRYW

## -40°C to +125°C

### Class C according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • PVC 125°C insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602

### Applications

- Low voltage wires for general automotive wiring.

### Specific characteristics

- Version with a reduced insulation according to ISO 6722-1 and ISO 19642-3

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.13	7 x 0.16	-	0.25	0.20	1.05	136	140
0.22	7 x 0.21	-	0.25	0.20	1.20	84.8	86.5
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23
8	-	50 x 0.46	0.40	0.32	5.00	2.38	2.52
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60	-	296 x 0.51	1.00	0.80	13.30	0.315	0.333
70	-	360 x 0.51	1.00	0.80	14.40	0.259	0.264
95	-	475 x 0.51	1.10	0.90	16.70	0.196	0.200

\* The outside wire diameter for 0.35 mm² Type A with 7 strands shall be max 1.30 mm.

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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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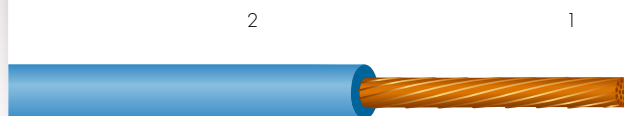
# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# PLASTHERM® FLR11Y

## -40°C to +150°C

### Class D according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • TPE-U insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602
- IEC 60754-1 halogen free

### Applications

- Low voltage wires for general automotive wiring.

### Specific characteristics

- Version with a reduced insulation according to ISO 6722-1 and ISO 19642-3
- Flame retardant

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23
8	-	50 x 0.46	0.40	0.32	5.00	2.38	2.52
10	-	80 x 0.41	0.60	0.48	6.00	1.82	1.85
12	-	96 x 0.41	0.60	0.48	6.50	1.52	1.60
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50	-	396 x 0.41	0.90	0.71	12.20	0.368	0.375
60	-	296 x 0.51	1.00	0.80	13.30	0.315	0.333
70	-	360 x 0.51	1.00	0.80	14.40	0.259	0.264
95	-	475 x 0.51	1.10	0.90	16.70	0.196	0.200

\* The outside wire diameter for 0.35 mm² Type A with 7 strands shall be max 1.30 mm.

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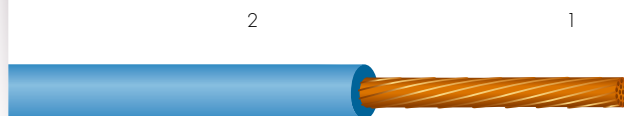
# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# PLASTHERM® FLR2X

**-40°C to +125°C**

**Class C according to ISO 6722-1  
and ISO 19642-3**



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • PE-X insulation (radiation crosslinked Polyethylene)

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602
- IEC 60754-1 halogen free

### Applications

- Low voltage wires for general automotive wiring.

### Specific characteristics

- Version with a reduced insulation according to ISO 6722-1 and ISO 19642-3
- Flame retardant

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

Nominal Cross section (mm <sup>2</sup> )	Type A	Type B	Thin wall			Bare copper	Tinned copper
	Number of strands & strand diameter nom. / max (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90*	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23

For this product, please contact:

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# SILIFLON® FLR7Y

## -40°C to +175°C

### Class E according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • ETFE insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602

### Applications

- Low voltage wires for automotive applications in engine compartment, automotive wiring in high temperature and aggressive environments requiring compact size and excellent mechanical strength.

### Specific characteristics

- Resistant to pressure at high temperatures
- Excellent resistance to abrasion
- Good chemical resistance to automotive oils and fuels

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.13	7 x 0.16	-	0.25	0.20	1.05	136	140
0.22	7 x 0.21	-	0.25	0.20	1.20	84.8	86.5
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23

\* The outside wire diameter for 0.35 mm² Type A with 7 strands shall be max 1.30 mm.

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# SILIFLON® FLR6Y

## -40°C to +210°C

### Class F according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • FEP insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602
- IEC 60754-1 halogen free

### Specific characteristics

- Resistant to pressure at high temperatures
- Excellent resistance to abrasion
- Good chemical resistance to automotive oils and fuels
- Flame retardant

### Applications

- Low voltage wires for automotive applications in engine compartment, automotive wiring in high temperature and aggressive environments requiring compact size and excellent mechanical strength.

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.13	7 x 0.16	-	0.25	0.20	1.05	136	140
0.22	7 x 0.21	-	0.25	0.20	1.20	84.8	86.5
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23

\* The outside wire diameter for 0.35 mm² Type A with 7 strands shall be max 1.30 mm.

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# SILIFLON® FLR51Y

## -40°C to +260°C

### Class H according to ISO 6722-1 and ISO 19642-3



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • PFA insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602

### Applications

- Low voltage wires for automotive applications in engine compartment, automotive wiring in high temperature and aggressive environments requiring compact size and excellent mechanical strength.

### Specific characteristics

- Resistant to pressure at high temperatures
- Excellent resistance to abrasion
- Good chemical resistance to automotive oils and fuels

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

### Option

- Flexible version with Type C - core according to ISO 6722-1 and ISO 19642-3

### CONSTRUCTION SELON ISO 6722-1 ET ISO 19642-3

	Type A	Type B	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.13	7 x 0.16	-	0.25	0.20	1.05	136	140
0.22	7 x 0.21	-	0.25	0.20	1.20	84.8	86.5
0.35	7 x 0.27	12 x 0.21	0.25	0.20	1.40*	54.4	55.5
0.50	19 x 0.19	16 x 0.21	0.28	0.22	1.60	37.1	38.2
0.75	19 x 0.24	24 x 0.21	0.30	0.24	1.90	24.7	25.4
1	19 x 0.27	32 x 0.21	0.30	0.24	2.10	18.5	19.1
1.25	19 x 0.30	16 x 0.33	0.30	0.24	2.30	14.9	15.9
1.5	19 x 0.33	30 x 0.26	0.30	0.24	2.40	12.7	13.0
2	19 x 0.38	28 x 0.31	0.35	0.28	2.80	9.42	9.69
2.5	37 x 0.28	50 x 0.26	0.35	0.28	3.00	7.60	7.82
3	-	44 x 0.31	0.40	0.32	3.40	6.15	6.36
4	-	56 x 0.31	0.40	0.32	3.70	4.71	4.85
5	-	65 x 0.33	0.40	0.32	4.20	3.94	4.02
6	-	84 x 0.31	0.40	0.32	4.30	3.14	3.23

\* The outside wire diameter for 0.35 mm² Type A with 7 strands shall be max 1.30 mm.

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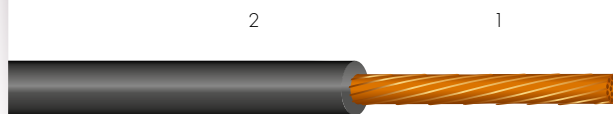
# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## LOW VOLTAGE SINGLE CORE CABLES

# SILICABLE® FL2G

**-40°C to +200°C**

**Class F according to ISO 6722-1  
and ISO 19642-3**



- 1 • Bare or tinned copper core according to ISO 6722-1, ISO 19642-3 and EN 13602
- 2 • Silicone insulation

### Approvals - standards

- ISO 6722-1, ISO 19642-1, ISO 19642-3, EN 13602
- IEC 60754-1 halogen free

### Applications

- Low voltage wires for automotive applications in engine compartment, used in areas requiring high flexibility at low temperatures.

### Specific characteristics

- Flame retardant

### Colour code

- Black, Blue, Brown, Green, Orange, Red, Purple, White, Yellow (others on request)

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-3

	Type B	Type C	Thin wall			Bare copper	Tinned copper
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / max. (nb. x mm)	Number of strands & strand diameter nom. / max. (nb. x mm)	Insulation thickness nom. (mm)	Insulation thickness min. (mm)	Outside wire diameter max. (mm)	Maximum linear resistance at 20°C (Ω/ km)	Maximum linear resistance at 20°C (Ω/ km)
0.50	16 x 0.21	26 x 0.16	0.60	0.48	2.30	37.1	38.2
0.75	24 x 0.21	38 x 0.16	0.60	0.48	2.50	24.7	25.4
1	32 x 0.21	54 x 0.16	0.60	0.48	2.70	18.5	19.1
1.5	30 x 0.26	76 x 0.16	0.60	0.48	3.00	2.7	13.0
2	28 x 0.31	105 x 0.16	0.60	0.48	3.30	9.42	9.69
2.5	50 x 0.26	140 x 0.16	0.70	0.56	3.60	7.6	7.82
3	44 x 0.31	160 x 0.16	0.70	0.56	4.10	6.15	6.36
4	56 x 0.31	224 x 0.16	0.80	0.64	4.40	4.71	4.85
5	65 x 0.33	250 x 0.16	0.80	0.64	4.90	3.94	4.02
6	84 x 0.31	320 x 0.16	0.80	0.64	5.00	3.14	3.23
8	50 x 0.46	240 x 0.21	0.80	0.64	5.90	2.38	2.52
10	80 x 0.41	320 x 0.21	1.00	0.80	6.50	1.82	1.85
12	96 x 0.41	380 x 0.21	1.00	0.80	7.40	1.52	1.60
16	126 x 0.41	512 x 0.21	1.00	0.80	8.30	1.16	1.18
20	152 x 0.41	610 x 0.21	1.10	0.88	9.10	0.955	0.999
25	196 x 0.41	790 x 0.21	1.30	1.04	10.40	0.743	0.757
30	224 x 0.41	900 x 0.21	1.30	1.04	10.90	0.647	0.684
35	276 x 0.41	1 070 x 0.21	1.30	1.04	11.60	0.527	0.538
40	308 x 0.41	1 200 x 0.21	1.40	1.12	12.40	0.473	0.500
50	396 x 0.41	1 600 x 0.21	1.50	1.20	13.50	0.368	0.375
60	296 x 0.51	1 200 x 0.26	1.50	1.20	14.60	0.315	0.333
70	360 x 0.51	1 427 x 0.26	1.50	1.20	15.50	0.259	0.264
95	475 x 0.51	1 936 x 0.26	1.60	1.28	18.00	0.196	0.200
120	608 x 0.51	2 450 x 0.26	1.60	1.28	19.70	0.153	0.156

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# HIGH VOLTAGE CABLES

## E-MOBILITY APPLICATIONS









# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHL2G-C

Single core

**-40°C à +180°C**

**Class E according to ISO 6722-1**

**and ISO 19642-5**

**+180°C (3000 h)**

**+205°C (240 h)**

ATTENTION ⚡ HIGH VOLTAGE

- 1 • Flexible bare copper core according to ISO 6722-1, ISO 19642-5 and EN 13602  
2 • Silicone insulation

### Approvals - standards\*

- ISO 19642-5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Single core silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to ISO 19642
- Voltage rating: 1000 VAC / 1500 VDC
- Test voltage: 10 kV 5 minutes
- Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Orange
- (others on request)

## CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-5

Item code	Nominal cross section (mm²)	Number & diameter of strands nom. / max. (nb. x mm)	Conductor diameter max. (mm)	Insulation thickness (mm)	Cable outside diameter		Maximum linear resistance at 20°C (Ω/ km)
					max. (mm)	min. (mm)	
A2504005	0.5	16 x 0.21	1.1	0.48	2.0	2.3	37.1
A2504001	0.75	24 x 0.21	1.3	0.48	2.2	2.5	24.7
A2504002	1	32 x 0.21	1.5	0.48	2.4	2.7	18.5
A2504003	1.5	30 x 0.26	1.8	0.48	2.7	3.0	12.7
A2504004	2.5	50 x 0.26	2.2	0.56	3.3	3.6	7.60
A2503005	4	224 x 0.16	2.8	0.64	4.0	4.4	4.71
A2503006	6	320 x 0.16	3.4	0.64	4.6	5.0	3.14
A2503007	10	320 x 0.21	4.5	0.80	5.9	6.5	1.82
A2503008	16	512 x 0.21	6.3	0.80	7.7	8.3	1.16
A2503009	25	790 x 0.21	7.8	1.04	9.4	10.4	0.743
A2503010	35	1070 x 0.21	9.0	1.04	9.6	11.6	0.527
A2503002	50	1600 x 0.21	10.5	1.20	11.5	13.5	0.368
A2503004	70	2175 x 0.21	12.5	1.20	13.5	15.5	0.259
A2503011	95	3000 x 0.21	14.8	1.28	16.0	18.0	0.196
A2503012	120	3700 x 0.21	16.5	1.28	17.7	19.7	0.153

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

For this product, please contact:

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

### SILICABLE® FHLR2G-C

Single core

**-40°C to +180°C**

**Class E according to ISO 6722-1  
and ISO 19642-5**

+180°C (3000 h)

+205°C (240 h)

ATTENTION ⚡ HIGH VOLTAGE

- 1 • Flexible bare copper core according to ISO 6722-1, ISO 19642-5 et EN 13602  
2 • Silicone insulation

#### Approvals - standards\*

- ISO 19642-5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

#### Applications

- Single core silicone power cable for use in hybrid and electrical vehicles.

#### Specific characteristics

- High Voltage requirements according to ISO 19642
- **Cross-sections < 10 mm² :**
  - Voltage rating: 600 VAC / 900 VDC
  - Test voltage: 5 kV 5 minutes
  - Sparktest: 6 kV
- **Cross-sections ≥ 10 mm² :**
  - Voltage rating: 1000 VAC / 1500 VDC
  - Test voltage: 10 kV 5 minutes
  - Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

#### Colour code

- Orange
- (others on request)

#### CONSTRUCTION ACCORDING TO ISO 6722-1 AND ISO 19642-5

Item code	Nominal cross section (mm²)	Number & diameter of strands nom. / max. (nb. x mm)	Conductor diameter max. (mm)	Insulation thickness min. (mm)	Cable outside diameter		Maximum linear resistance at 20°C (Ω/ km)
					max. (mm)	min. (mm)	
A2511001	4	224 x 0.16	2.8	0.32	3.4	3.7	4.71
A2511002	6	320 x 0.16	3.4	0.32	4.0	4.3	3.14
A2511003	10	320 x 0.21	4.5	0.48	5.3	6.0	1.82
A2511004	16	512 x 0.21	6.3	0.52	6.4	7.2	1.16
A2511005	25	790 x 0.21	7.8	0.52	7.9	8.7	0.743
A2511006	35	1070 x 0.21	9.0	0.64	9.4	10.4	0.527
A2511007	50	1600 x 0.21	10.5	0.71	11.0	12.2	0.368
A2511008	70	2175 x 0.21	12.5	0.80	13.0	14.4	0.259
A2511009	95	3000 x 0.21	14.8	0.90	15.3	16.7	0.196

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2G LV216

Singlecore

**-40°C to +180°C**

**Class E according to ISO 6722-1**

**LV 216-2 table A2**

**+180°C (3000 h)**

**+ 205°C (240 h)**

ATTENTION ⚡ HIGH VOLTAGE

- 1 • Flexible bare copper core according to ISO 6722-1 and EN 13602  
2 • Silicone insulation

### Approvals - standards\*

- LV 216-2 table A2, ISO 6722-1  
EN 13602
- IEC 60754-1 halogen free

### Applications

- Single core silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to LV 216-2
- Voltage rating: 600 VAC / 1000 VDC
- Test voltage: 5 kV 5 minutes
- Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Orange
- (others on request)

### CONSTRUCTION ACCORDING TO LV 216-2 TABLE A2

Item code	Nominal cross section (mm²)	Number & diameter of strands nom. /max. (nb. x mm)	Conductor diameter max. (mm)	Insulation thickness min. (mm)	Cable outside diameter max. (mm)	Cable outside diameter min. (mm)	Maximum linear resistance at 20°C (Ω/ km)
A2512001	4	120 x 0.21	2.8	0.32	3.4	3.7	4.71
A2512002	6	183 x 0.21	3.4	0.32	4	4.3	3.14
A2512003	10	320 x 0.21	4.5	0.48	5.4	6.0	1.82
A2512004	16	512 x 0.21	5.8	0.52	6.6	7.2	1.16
A2512005	25	790 x 0.21	7.2	0.64	8.2	8.8	0.743
A2512006	35	1070 x 0.21	8.5	0.64	9.8	10.5	0.527
A2512007	50	1600 x 0.21	10.5	0.71	11.5	12.2	0.368
A2512008	70	2175 x 0.21	12.5	1.2	14	15.5	0.259
A2512009	95	3000 x 0.21	14.8	1.2	16.2	18.0	0.196
A2512010	120	3700 x 0.21	16.5	1.28	17.9	19.7	0.153

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2GCB2G-C

Shielded single core

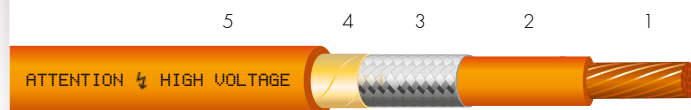
**-40°C to +180°C**

**Class E according to ISO 6722-1**

**and ISO 19642-5**

**+180°C (3000 h)**

**+205°C (240 h)**



- 1 • Flexible bare copper core (structure C) according to ISO 6722-1, ISO 19642-5 and EN 13602
- 2 • Silicone insulation
- 3 • Tinned copper braid
- 4 • Aluminium / PET tape
- 5 • Silicone sheath

### Approvals - standards\*

- ISO 19642-9, ISO 19642-5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Single core silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to ISO 19642
- Cross-sections < 10 mm<sup>2</sup> :
  - Voltage rating: 600 VAC / 900 VDC
  - Test voltage: 5 kV 5 minutes
  - Sparktest: 6 kV
- Cross-sections ≥ 10 mm<sup>2</sup> :
  - Voltage rating: 1000 VAC / 1500 VDC
  - Test voltage: 10 kV 5 minutes
  - Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Orange
- (others on request)

### CONSTRUCTION ACCORDING TO ISO 19642-9

Item code	Nominal cross section (mm <sup>2</sup> )	Number & diameter of strands nom. / max. (nb. x mm)	Conductor diameter max. (mm)	Insulation thickness min. (mm)	Single core diameter		Strand diameter screen max. (mm)	Sheath thickness min. (mm)	Cable outside diameter		Linear core resistance at 20°C (Ω/ km)
					min. (mm)	max. (mm)			min. (mm)	max. (mm)	
A2507003	4	224 x 0.16	2.8	0.32	3.4	3.7	0.16	0.32	4.5	5.1	4.71
A2507004	6	320 x 0.16	3.4	0.32	4.0	4.3	0.16	0.48	5.5	6.1	3.14
A2507005	10	320 x 0.21	4.5	0.48	5.3	6.0	0.19	0.52	7.5	8.1	1.82
A2507006	16	512 x 0.21	6.3	0.52	6.4	7.2	0.19	0.64	9.0	9.6	1.16
A2507007	25	790 x 0.21	7.8	0.52	7.9	8.7	0.21	0.72	10.7	11.3	0.743
A2507008	35	1070 x 0.21	9.0	0.64	9.4	10.4	0.21	0.80	12.6	13.2	0.527
A2507009	50	1600 x 0.21	10.5	0.71	11.0	12.2	0.21	0.88	14.6	15.2	0.368
A2507010	70	2175 x 0.21	12.5	0.80	13.0	14.4	0.21	0.88	16.6	17.4	0.259
A2507011	95	3000 x 0.21	14.8	0.90	15.3	16.7	0.26	0.88	19.1	19.9	0.196

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2GCB2G LV216

Shielded single core

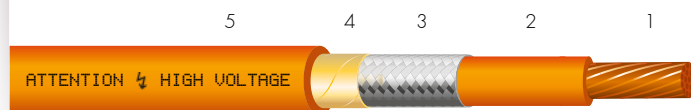
**-40°C to +180°C**

**Class E according to ISO 6722-1**

**LV 216-2**

**+180°C (3000 h)**

**+205°C (240 h)**



- 1 • Flexible bare copper core according to ISO 6722-1 and EN 13602
- 2 • Silicone insulation
- 3 • Tinned copper braid
- 4 • Aluminium / PET tape
- 5 • Silicone sheath

### Approvals - standards\*

- LV 216-2 table A.2, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Single core silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to LV 216-2
- Voltage rating: 600 VAC / 1000 VDC
- Test voltage: 5 kV 5 minutes
- Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Orange
- (others on request)

### CONSTRUCTION ACCORDING TO LV 216-2 TABLE A.2

Item code	Nominal cross section (mm²)	Number & diameter of strands nom. / max. (nb. x mm)	Conductor diameter max. (mm)	Insulation thickness min. (mm)	Single core diameter		Strand diameter screen max. (mm)	Sheath thickness min. (mm)	Cable outside diameter		Linear core resistance at 20°C (Ω/ km)
					min. (mm)	max. (mm)			min. (mm)	max. (mm)	
A2510001	4	120 x 0.21	2.8	0.32	3.4	3.7	0.16	0.38	5.3	5.8	4.7
A2510002	6	183 x 0.21	3.4	0.32	4.0	4.3	0.16	0.46	6.0	6.5	3.1
A2510003	10	320 x 0.21	4.5	0.48	5.4	6.0	0.16	0.70	8.2	8.8	1.82
A2510004	16	512 x 0.21	5.8	0.52	6.6	7.2	0.16	0.70	9.6	10.2	1.16
A2510005	25	790 x 0.21	7.2	0.64	8.2	8.8	0.21	0.75	11.6	12.2	0.743
A2510006	35	1070 x 0.21	8.5	0.64	9.8	10.5	0.21	0.80	13.8	14.4	0.527
A2510007	50	1600 x 0.21	10.5	0.71	11.5	12.2	0.21	0.80	15.2	15.8	0.368
A2510008	70	2175 x 0.21	12.5	1.20	14.0	15.5	0.21	1.16	19.2	20.0	0.259
A2510009	95	3000 x 0.21	14.8	1.20	16.2	18.0	0.21	1.16	21.5	22.5	0.196
A2510010	120	3700 x 0.21	16.5	1.28	17.9	19.7	0.21	1.16	22.5	23.5	0.153

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2G2G-C

Multicore

**-40°C to +180°C**

**Class E according to ISO 6722-1**

**and ISO 19642-1**

**+180°C (3000 h)**

**+ 205°C (240 h)**



- 1 • Flexible bare copper core according to ISO 6722-1, ISO 19642-5 and EN 13602
- 2 • Silicone insulation
- 3 • Silicone sheath

### Approvals - standards\*

- ISO 19642-9, ISO 19642-5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Multicore silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to ISO 19642-9
- **Cross-sections < 10 mm² :**
  - Voltage rating: 600 VAC / 900 VDC
  - Test voltage: 5 kV 5 minutes
  - Sparktest: 6 kV
- **Sections ≥ 10 mm² :**
  - Voltage rating: 1000 VAC / 1500 VDC
  - Test voltage: 10 kV 5 minutes
  - Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Sheath: orange
  - Insulation:
    - 2 cores: red, black
    - ≥ 3 cores : HD308
- (others on request)

### CONSTRUCTION ACCORDING TO ISO 19642-9

Item code	Number of conductors	Nominal cross section (mm²)	Conductor diameter max. (mm)	Single core diameter		Sheath thickness min. (mm)	Cable outside diameter	
				min. (mm)	max. (mm)		min. (mm)	max. (mm)
G2506004	2	1.5	1.8	2.2	2.4	0.46	5.4	5.9
G2506005	3	1.5	1.8	2.2	2.4	0.47	5.8	6.4
G2506006	4	1.5	1.8	2.2	2.4	0.50	6.5	7.0
G2506007	2	2.5	2.2	2.7	3.0	0.51	6.7	7.3
G2506008	3	2.5	2.2	2.7	3.0	0.53	7.2	7.8
G2506009	4	2.5	2.2	2.7	3.0	0.56	8.0	8.6
G2506010	2	4	2.8	3.4	3.7	0.56	8.1	8.8
G2506011	3	4	2.8	3.4	3.7	0.58	8.7	9.4
G2506012	4	4	2.8	3.4	3.7	0.61	9.7	10.4
G2506001	2	6	3.4	4.0	4.3	0.60	9.4	10.1
G2506013	3	6	3.4	4.0	4.3	0.61	10.1	10.8
G2506014	4	6	3.4	4.0	4.3	0.64	11.2	12.0
G2506015	2	10	4.5	5.7	6.0	0.68	12.8	13.7
G2506016	3	10	4.5	5.7	6.0	0.69	13.8	14.7
G2506017	2	16	6.3	6.9	7.2	0.72	15.3	16.2
G2506018	3	16	6.3	6.9	7.2	0.74	16.4	17.4

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2GCB2G-C

Shielded multicore

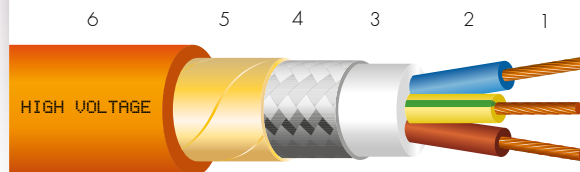
**-40°C to +180°C**

**Class E according to ISO 6722-1**

**and ISO 19642-1**

**+180°C (3000 h)**

**+205°C (240 h)**



- 1 • Flexible bare copper core according to ISO 6722-1, ISO 19642-5 and EN 13602
- 2 • Silicone insulation
- 3 • Silicone internal sheath
- 4 • Tinned copper braid
- 5 • Aluminium / PET tape
- 6 • External silicone sheath

### Approvals - standards\*

- ISO 19642-9, ISO 19642-5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Multicore silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to ISO 19642-9
- Cross-sections < 10 mm<sup>2</sup>:
  - Voltage rating: 600 VAC / 900 VDC
  - Test voltage: 5 kV 5 minutes
  - Sparktest: 6 kV
- Cross-sections ≥ 10 mm<sup>2</sup>:
  - Voltage rating: 1000 VAC / 1500 VDC
  - Test voltage: 10 kV 5 minutes
- Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Sheath: orange
  - Insulation:
    - 2 cores: red, black
    - ≥ 3 cores: HD308
- (others on request)

### CONSTRUCTION ACCORDING TO ISO 19642-9

Item code	Number of conductors	Nominal cross section (mm <sup>2</sup> )	Conductor diameter max. (mm)	Single core diameter min. (mm) max. (mm)	Under screen diameter max. (mm)	Strand diameter screen max. (mm)	Sheath thickness min. (mm)	Cable outside diameter min. (mm) max. (mm)
G2502008	2	1.5	1.8	2.2 2.4	5.2	0.19	0.52	6.8 7.4
G2502009	3	1.5	1.8	2.2 2.4	5.6	0.19	0.53	7.3 7.9
G2502010	4	1.5	1.8	2.2 2.4	6.3	0.19	0.56	8.0 8.6
G2502011	2	2.5	2.2	2.7 3.0	6.5	0.19	0.56	8.2 8.9
G2502022	3	2.5	2.2	2.7 3.0	7.0	0.21	0.58	8.8 9.5
G2502012	4	2.5	2.2	2.7 3.0	7.9	0.21	0.60	9.7 10.4
G2502013	2	4	2.8	3.4 3.7	8.0	0.21	0.61	9.9 10.6
G2502014	3	4	2.8	3.4 3.7	8.6	0.21	0.62	10.5 11.2
G2502015	4	4	2.8	3.4 3.7	9.6	0.21	0.65	11.5 12.3
G2502007	2	6	3.4	4.0 4.3	9.3	0.21	0.64	11.2 11.9
G2502016	3	6	3.4	4.0 4.3	10.0	0.21	0.66	11.9 12.7
G2502017	4	6	3.4	4.0 4.3	11.2	0.21	0.68	13.1 13.9
G2502018	2	10	4.5	5.7 6.0	12.9	0.21	0.71	14.8 15.7
G2502019	3	10	4.5	5.7 6.0	13.8	0.26	0.73	15.9 16.9
G2502020	2	16	6.3	6.9 7.2	15.4	0.26	0.75	17.4 18.5
G2502021	3	16	6.3	6.9 7.2	16.5	0.26	0.77	18.6 19.7

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

# SILICABLE® FHLR2GCB2G LV216

Shielded multicore

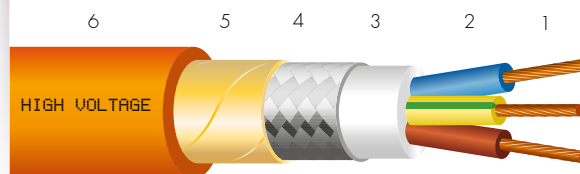
**-40°C to +180°C**

**Class E according to ISO 6722-1**

**LV 216-2 table A.5**

**+180°C (3000 h)**

**+205°C (240 h)**



- 1 • Flexible bare copper core according to ISO 6722-1, LV 216-2 et EN 13602
- 2 • Silicone insulation
- 3 • Silicone internal sheath
- 4 • Tinned copper braid
- 5 • Aluminium / PET tape
- 6 • External silicone sheath

### Approvals - standards\*

- LV 216-2 table A.5, ISO 6722-1, EN 13602
- IEC 60754-1 halogen free

### Applications

- Multicore silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to LV 216-2
- Voltage rating: 600 VAC / 1000 VDC
- Test voltage: 5 kV 5 minutes
- Sparktest: 8 kV
- Excellent flexibility
- Flame retardant
- Bending radius: 3 x D

### Colour code

- Sheath: orange
- Insulation:
  - 2 cores: red, black
  - ≥ 3 cores: LV216-2 (others on request)

### CONSTRUCTION ACCORDING TO LV 216-2 TABLE A.5

Item code	Number of conductors	Nominal cross section (mm <sup>2</sup> )	Conductor diameter max. (mm)	Single core diameter min. max. (mm)	Under screen diameter max. (mm)	Strand diameter screen max. (mm)	Sheath thickness min. (mm)	Cable outside diameter min. max. (mm)
G2505001	2	1.5	1.7	2.2 2.4	5.8	0.16	0.76	7.9 8.5
G2505002	3	1.5	1.7	2.2 2.4	6.2	0.16	0.76	8.5 9.1
G2505003	4	1.5	1.7	2.2 2.4	6.8	0.16	0.76	9.1 9.7
G2505004	5	1.5	1.7	2.2 2.4	7.4	0.16	0.76	9.7 10.3
G2505005	2	2.5	2.2	2.7 3.0	6.9	0.16	0.76	9.3 9.9
G2505006	3	2.5	2.2	2.7 3.0	7.4	0.16	0.76	9.8 10.4
G2505007	4	2.5	2.2	2.7 3.0	8.1	0.16	0.76	10.5 11.1
G2505008	5	2.5	2.2	2.7 3.0	8.9	0.16	0.76	11.5 12.1
G2505009	2	4	2.8	3.4 3.7	8.3	0.16	0.76	10.7 11.3
G2505010	3	4	2.8	3.4 3.7	8.9	0.16	0.76	11.5 12.1
G2505011	4	4	2.8	3.4 3.7	9.8	0.21	0.82	12.7 13.3
G2505012	5	4	2.8	3.4 3.7	11	0.21	0.9	13.9 14.5
G2505013	2	6	3.4	4.0 4.3	9.7	0.16	0.82	12.2 12.8
G2505014	3	6	3.4	4.0 4.3	10.5	0.21	0.9	13.5 14.1
G2505015	4	6	3.4	4.0 4.3	11.4	0.21	0.9	14.5 15.1
G2505016	5	6	3.4	4.0 4.3	12.6	0.21	0.9	15.7 16.3

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## HIGH VOLTAGE CABLES

### SILICABLE® FHLR6YBCF2G

Shielded multicore

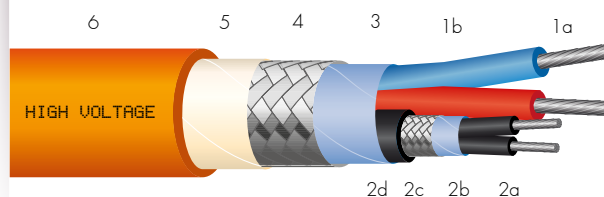
**-40°C to +180°C**

**Class E according to ISO 6722-1**

**and ISO 19642-1**

**+180°C (3000 h)**

**+205°C (240 h)**



#### 2 x 4 mm² conductors

- 1a • Tinned copper cores 4 mm² according to ISO 6722-1, ISO 19642-5 and EN 13602
- 1b • FEP insulation

#### 2 x 0.5 mm² shielded twisted pair

- 2a • Tinned copper cores 0.5 mm² according to ISO 6722-1, ISO 19642-5 and EN 13602
- 2b • FEP insulation
- 2c • Double shielding: aluminium / PET tape and tinned copper braid
- 2d • FEP sheath

- 3 • Aluminium / PET tape
- 4 • Tinned copper braid
- 5 • PET tape
- 6 • External silicone sheath

### Approvals - standards\*

- ISO 19642-9, ISO 19642-5, ISO 6722-1, EN 13602

### Applications

- Multicore silicone power cable for use in hybrid and electrical vehicles.

### Specific characteristics

- High Voltage requirements according to ISO 19642
- Voltage rating: 600 VAC / 900 VDC
- Test voltage: 5 kV 5 minutes
- Sparktest: 6 kV
- Excellent flexibility
- Flame retardant

### Colour code

- Orange
- (others on request)

### CONSTRUCTION ACCORDING TO ISO 19642-9

Item code	Composition (mm²)	Outside wire diameter		Cable outside diameter (mm)	Maximum linear resistance at 20°C (Ω / km)	
		4 mm²	0.5 mm²		4 mm²	0.5 mm²
G2504001	2 x 4 + 2 x 0.5	3.55	1.45	11.2	4.85	38.2

\* Standards: our products comply with all or part of the requirements of standards quoted: contact us  
Other cross-sections available on request

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# EXTRA FLEXIBLE BATTERY CABLES

**BATTERY  
CHARGERS**





# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## EXTRA FLEXIBLE BATTERY CABLES

# FLEXBAT® ST

## -15°C to +70°C



- 1 • Extra flexible bare copper core - class 6 according to IEC 60228
- 2 • Extra flexible PVC insulation

### Approvals - standards

- IEC 60228
- Flame retardant:  
IEC 60332-1-2

### Applications

- Extra flexible cables  
for car battery and battery chargers.

### Characteristics

- Voltage rating: 450 / 750 V
- Excellent flexibility

### Colour code

- Red and black  
(others on request)

### Option

- Extra flexible tinned copper core

	Class 6	Specific wall	Bare copper	
Nominal Cross section (mm <sup>2</sup> )	Number of strands & strand diameter nom. / nom. (nb. x mm)	Outside cable diameter nom. (mm)	Maximum linear resistance at 20°C (Ω / km)	Approx. linear weight (kg / km)
4	224 x 0.15	4.3	4.95	47
6	192 x 0.20	4.8	3.30	65
10	318 x 0.20	6.2	1.91	114
16	516 x 0.20	7.4	1.21	170
25	798 x 0.20	9.6	0.780	296
35	1 120 x 0.20	10.6	0.554	340
50	1 628 x 0.20	13.0	0.386	520
70	2 257 x 0.20	14.8	0.272	775

For this product, please contact:

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Phone: +33 (0)4 77 36 07 00  
polycable@omerin.com

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## EXTRA FLEXIBLE BATTERY CABLES

# FLEXBAT® HT

## -25°C to +105°C

2

1



- 1 • Extra flexible bare copper core - class 6 according to IEC 60228
- 2 • Extra flexible 105°C PVC insulation

### Approvals - standards

- IEC 60228
- Flame retardant:  
IEC 60332-1-2

### Applications

- Extra flexible cables for car battery and battery chargers in hot environment.

### Characteristics

- Voltage rating: 450 / 750 V
- Excellent flexibility

### Colour code

- Red and black  
(others on request)

### Option

- Extra flexible tinned copper core

	Class 6	Specific wall	Bare copper	
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / nom. (nb. x mm)	Outside cable diameter nom. (mm)	Maximum linear resistance at 20°C (Ω / km)	Approx. linear weight (kg / km)
16	504 x 0.20	7.4	1.21	170
25	792 x 0.20	9.5	0.780	296
35	1 121 x 0.20	10.6	0.554	340
50	1 628 x 0.20	12.9	0.386	520
70	2 294 x 0.20	14.8	0.272	775

For this product, please contact:

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## EXTRA FLEXIBLE BATTERY CABLES

# FLEXBAT® THT

## -50°C to +125°C



- 1 • Extra flexible bare copper core - class 6 according to IEC 60228
- 2 • 125°C thermoplastic elastomer insulation

### Approvals - standards

- IEC 60228
- Flame retardant:  
IEC 60332-1-2

### Applications

- Extra flexible cables  
for car battery and battery chargers  
in hot environment.

### Characteristics

- Voltage rating: 450 / 750 V
- Excellent flexibility

### Colour code

- Red and black  
(others on request)

### Option

- Extra flexible tinned copper core

	Class 6	Specific wall	Bare copper	
Nominal Cross section (mm <sup>2</sup> )	Number of strands & strand diameter nom. / nom. (nb. x mm)	Outside cable diameter nom. (mm)	Maximum linear resistance at 20°C (Ω / km)	Approx. linear weight (kg / km)
16	504 x 0.20	7.4	1.21	170
25	792 x 0.20	9.5	0.780	296
35	1 121 x 0.20	10.6	0.554	340
50	1 628 x 0.20	12.9	0.386	520
70	2 294 x 0.20	14.8	0.272	775

For this product, please contact:

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

## EXTRA FLEXIBLE BATTERY CABLES

# FLEXBAT® DI LR HT

*Double insulating layer  
Thin wall thickness*

**-40°C to +105°C**

**Class B according to ISO 6722**



- 1 • Flexible or extra flexible bare copper core according to ISO 6722-1 and EN 13602
- 2 • Extra flexible 105°C PVC insulation
- 3 • Extra flexible 105°C PVC outer sheath

### Approvals - standards

- ISO 6722-1, EN 13602
  - Flame retardant: IEC 60332-1-2
- Max. permissible current according to IEC 60287

### Characteristics

- Voltage rating: 600 / 600 V
- Excellent flexibility
- Minimum static internal bending radius 5 x D
- Cold-resistant according to ISO 6722
- Good chemical resistance to engine oils and fuels

### Applications

- Extra flexible cables for car battery and battery chargers.

### Colour code

- Red, Black, Blue, Brown, Yellow with green marking (others on request)

### Option

- Flexible or extra flexible tinned copper core

	Type B	Type C	Specific wall		Bare copper	
Nominal Cross section (mm <sup>2</sup> )	Number of strands & strand diameter nom. / nom. (nb. x mm)	Number of strands & strand diameter nom. / nom. (nb. x mm)	Outside wire diameter nom. (mm)	Outside cable diameter nom. (mm)	Maximum linear resistance at 20°C (Ω / km)	Approx. linear weight (kg / km)
10	-	357 x 0.20	5.5	6.4	1.82	160
16	-	540 x 0.20	6.8	7.9	1.16	220
25	-	828 x 0.20	8.7	9.9	0.743	290
35	-	1 178 x 0.20	9.9	11.2	0.527	410
50	-	1 679 x 0.20	11.6	13.0	0.368	570
70	558 x 0.40	-	13.5	15.0	0.259	815
95	740 x 0.40	-	15.5	17.5	0.196	1 208
120	-	2 590 x 0.25	17.2	19.2	0.193	1 550

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# CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

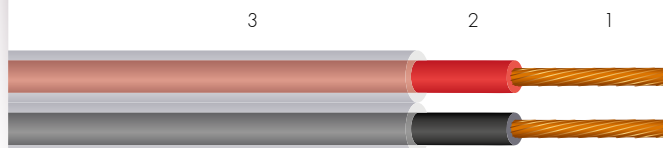
## EXTRA FLEXIBLE BATTERY CABLES

# TWINBAT® RN

## 2-conductor cable

### Under crystal sheath

### -15°C to +70°C



- 1 • Extra flexible bare copper core - class 6 according to IEC 60228
- 2 • PVC insulation type T12 – EN 50363-3
- 3 • PVC outer sheath type TM2 – EN 50363-4-1

### Approvals - standards

- IEC 60228
- Flame retardant: IEC 60332-1-2

### Applications

- Extra flexible cables for battery chargers and fixed or portable jump starters. Red and black conductors under a crystal sheath to provide easier use.

### Characteristics

- Voltage rating: 450 / 750 V
- Excellent flexibility

### Colour code

- Insulation: Red and Black
- Outer sheath: Crystal (others on request)

### Option

- Extra flexible tinned copper core

	Class 6	Specific wall		Bare copper	
Nominal Cross section (mm²)	Number of strands & strand diameter nom. / nom. (nb. x mm)	Outside wire diameter nom. (mm)	Outside cable diameter nom. (mm)	Maximum linear resistance at 20°C (Ω / km)	Approx. linear weight (kg / km)
2 x 2.5	140 x 0.15	3.6	5.3 x 12.6	7.98	115
2 x 4	224 x 0.15	4.2	6.0 x 13.0	4.95	185
2 x 6	200 x 0.20	4.8	6.5 x 14.0	3.30	250
2 x 10	322 x 0.20	6.2	8.0 x 17.0	1.91	400
2 x 16	504 x 0.20	7.3	9.0 x 19.0	1.21	500
2 x 25	792 x 0.20	9.4	11.5 x 25.0	0.780	750
2 x 35	1 121 x 0.20	10.5	13.0 x 28.0	0.554	810
2 x 50	1 628 x 0.20	12.8	15.0 x 32.0	0.386	1 165
2 x 70	2 294 x 0.20	14.7	17.0 x 36.0	0.272	1 550

For this product, please contact:

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# SPECIAL AND CUSTOM MADE CABLES

## SPECIFIC APPLICATIONS



## Multicore cables

### HIGH PERFORMANCE

Our cables are tested extensively at all production stages to ensure top quality and to meet your requirements. Our laboratory has the resources to test and validate the physical, mechanical, chemical, electrical and fire performance of the cables we produce.

#### PLASTHERM® FLR2X11Y-A

4 x 0.35 mm<sup>2</sup> CuA1

-40°C to +125°C, Class B according to ISO 6722

Low voltage cable, unscreened  
XLPE insulation and PUR sheath  
High mechanical strength & Abrasion resistance  
ABS System application

#### SILIFLON® FLR7Y2G-C

2 x 0.5 mm<sup>2</sup> CuSn

-40°C to +150°C, Class D according to ISO 6722

Low voltage cable  
ETFE insulation and Silicone sheath  
High temperature resistance & High flexibility  
Engine application

## Cables for specific applications

#### SILISOL® 1G et 2G

0.75 mm<sup>2</sup> CuA1

-60°C to +350°C, Class H according to ISO 6722

Application: sensor's cable for brake pad wear

### CUSTOMISED SOLUTION

Our Design Office is made up of experienced engineers who are specialists in metallurgy, plastics manufacture, electromagnetic compatibility, micromechanics, data transmission, etc. It will provide you with a fast, precise response by developing an specific automotive solution in line with the miscellaneous and complex constraints of your applications (temperature / mechanical / chemical environments).

#### SILICABLE® FHLR2GCB2G-B

3 x 2.5 mm<sup>2</sup> CuA1

-60°C to +180°C, Class E according to ISO 6722

High voltage cable 600 VAC / 900 VDC, screened  
Silicone insulation and sheath  
High flexibility  
E-mobility application

**Our special multicore cables are designed with Automotive wires compliant ISO 6722**

► **Contact us to define with our sales engineers the product best suited to your application.**

#### SILICABLE® ECS-HT, CS-HT

1.5 mm<sup>2</sup> CuSn ou CuA1

-60°C to +180°C, Class E according to ISO 6722

Application: ignition cables

For this product, please contact:

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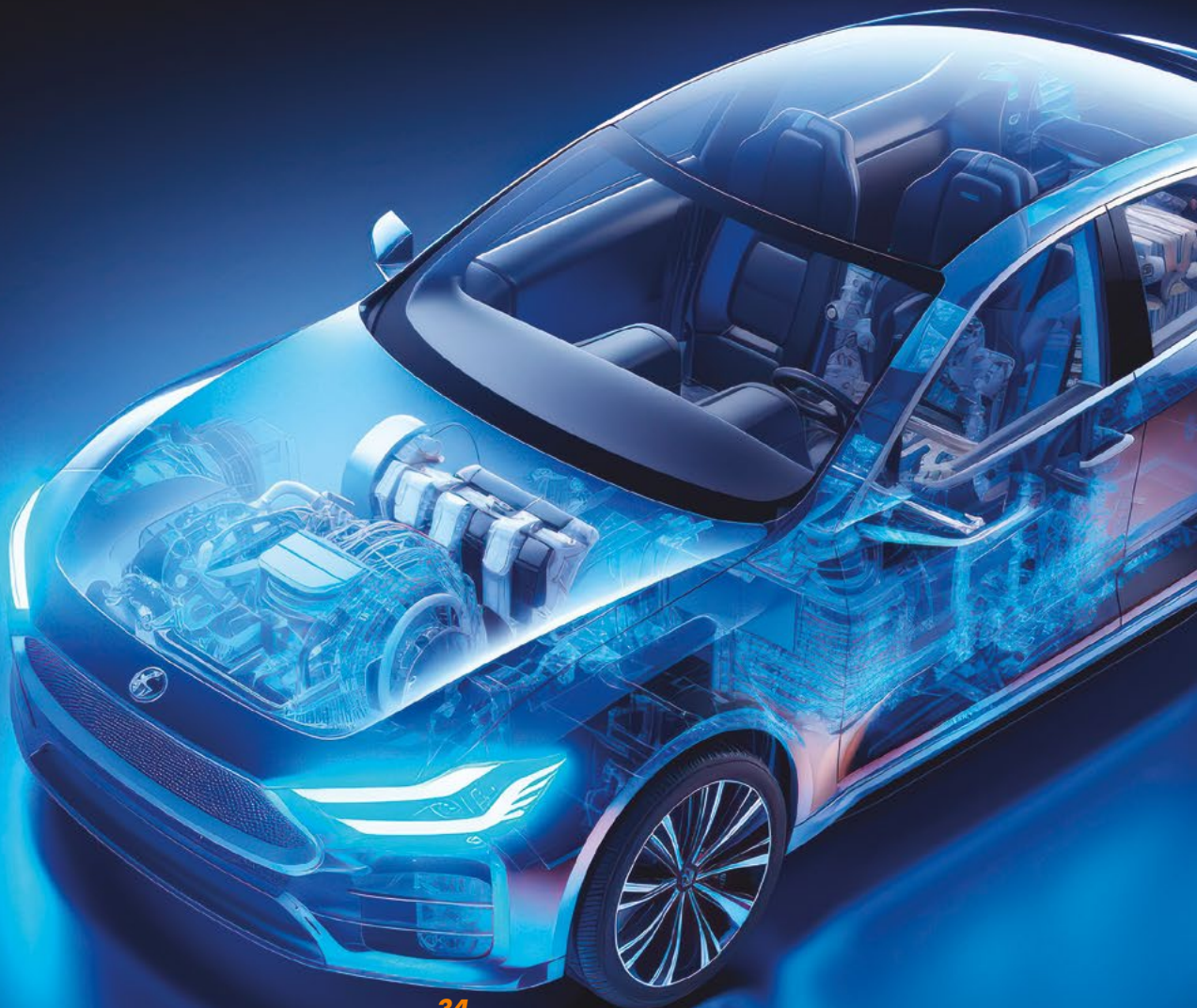
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## HIGH TEMPERATURE BRAIDED SLEEVINGS

**MECHANICAL  
& HIGH TEMPERATURE  
PROTECTIONS**



## CABLE SOLUTIONS FOR AUTOMOTIVE AND E-MOBILITY

### HIGH TEMPERATURE BRAIDED SLEEVINGS

# Insulating and protective sleeveings

## OUR PRODUCTS RANGE

### SILIGAINÉ® 13F

Electric insulating sleeveings  
Fibreglass braided sleeveings  
with Polyurethane coating  
**Class F**

### SILIGAINÉ® 16F

Electric insulating sleeveings  
Fibreglass braided sleeveings  
with Acrylic coating  
**Class F**

### SILIGAINÉ® 15C

Electric insulating sleeveings  
Fibreglass braided sleeveings  
with Silicone rubber coating  
**Class H and C**

### SILITUBE® X

Fireproof sleeveings  
Mineral fibre braided sleeveings  
with Silicone rubber coating

## APPLICATIONS

Class F alternator  
winding outputs  
insulation, gearbox hoses  
protection

Thermal and mechanical  
insulation of cable harnesses  
inside confined space,  
connector protection, brake  
fluid tube insulation, hoses  
insulation

Improved thermal insulation,  
fireproof protection

## MAIN CHARACTERISTICS & OPTION

Please see details for each reference in  
catalogue n°9  
«Braided insulating sleeveings».

- **Temperature**  
-30°C / +155°C  
-60°C / +250°C  
-60°C / +280°C
- **Fire performance**  
Self-extinguishing  
VW-1 version according to UL 1441
- **Electrical**  
Dielectric strength: 1 kV to 10 kV
- **Chemical**  
Good resistance to common  
chemical environments  
Good resistance to humidity, ozone  
and UV
- **Mechanical**  
Good flexibility  
Good mechanical strength  
Resistance to brasion  
Expandable version

## OUR PACKAGING



- **Cuts to length**  
Delivered in bulk in a  
cardbox



- **Spool kit**  
Some sleeveings can be  
supplied in kit spool  
form. The flanges are  
made of  
cardboard and metal.



- **Roll**  
Delivered with or without  
cardboard support.  
The product is maintained by  
adhesive tapes.

For this product, please contact:

OMERIN division principale   
Zone Industrielle - F 63600 Ambert  
Phone: +33 (0)4 73 82 50 00  
omerin@omerin.com

► For further information about our High temperature sleeveings  
**Please download catalogue N°9  
BRAIDED INSULATING SLEEVINGS**

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## Notes





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