SILICOUL®

MEDIUM VOLTAGE CABLES FOR INTERNAL WIRING OF ROTATING MACHINES

-60 °C > +180 °C

SILICOUL® 1.1KV / 3.7KV 6.6KV / 13.8KV

- Good resistance to thermal shock, UV, ozone, and corona effect
- Excellent ageing and mechanical strenght
- UL Style available in 3661 / 3662 / 3663 / 3664
- Options on request :
  SILICOUL® SCR: with tinned copper braid screen
  SILICOUL® DI: with double insulation
  SILICOUL® PUR: with PUR outer sheath
  SILICOUL® ST: without synthetic braid

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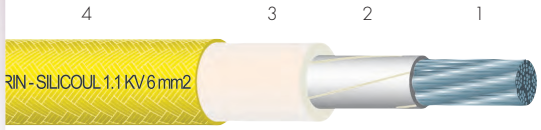
SILICONE INSULATED AND/OR SHEATHED
WIRES AND CABLES WITH REINFORCING BRAID

SILICOUL® 1.1 kV
-60 °C to +180 °C



1 • Flexible tin-plated copper core - class 5 as per IEC 60228.
2 • Optional separating tape.
3 • Insulation: Silicone rubber.
4 • Reinforcement: Coated synthetic fibre braid.

Approvals - standards

• Smoke classification F1 as per NF F 16-101.
• Bureau VERITAS approval certificates: compliance with the tests described as per standards IEC 60092-350/353/360, IEC 60228, IEC 60331-11/21, IEC 60332-1-1/2, IEC 60332-3-22 and IEC 60754-2.
• Lloyd's Register approval certificates: compliance with the tests described as per standards IEC 60228, IEC 60092-350/353/360, IEC 60754-2, IEC 60332-1-1/2, IEC 60332-3-22 category A and IEC 60331-11/21.

Applications

• Cabling for rotating machines: motors, alternators, generators.
• Cabling for static machines: transformers, inductors, inverters, choppers.
• Shipbuilding and railway construction.
• Power cabinets.

Options

• Extra-flexible tin-plated copper core - class 6 as per IEC 60228: contact us.
• Flexible or extra-flexible bare copper, silver-plated or nickel-plated core – class 5 or 6 as per IEC 60228: contact us.
• Without reinforcing braid (ref. SILICOUL® ST 1.1 KV): contact us.
• Varnished synthetic fibre reinforcing braid (ref. SILICOUL® RI 1.1 KV): contact us.
• Very high temperature fibre reinforcing braid: contact us.
• Silicone rubber double insulating layers (ref. SILICOUL® DI 1.1 KV): contact us.
• Electrical shielding:
> Tin-plated copper braid (ref. SILICOUL® SCR 1.1 KV): contact us.
• Outer flexible armour:
> Galvanised steel braid (ref. SILICOUL® BG 1.1 KV): contact us.
> Stainless steel braid (ref. SILICOUL® BI 1.1 KV): contact us.
• Multi-conductor cable made up of an assembly of several single conductor cables SILICOUL® 1.1 KV: contact us.
• Other markings: contact us.
• Other colours: contact us.
• Other nominal cross-sections: contact us.
• Other options and/or combinations of the options outlined above: contact us.

Characteristics

General

• Continuous operating temperatures: -60 °C to +180 °C.
• Good resistance to thermal shock and UV.
• Excellent mechanical strength.

Electrical

• Rated voltage: 1.1 kV.
• Test voltage: 3.5 kV.

Standard products

• Standard insulation colour: white.
• Standard reinforcing braid colour: yellow.
• Standard marking: OMERIN - SILICOUL 1.1 KV - {cross-section}.

SILICOUL® 1.1 kV

Flexible core • class 5 as per IEC 60228			INSULATED WIRE OR CABLE	
Nominal cross-section (mm²)	Nominal stranding	Maximum linear resistance at 20 °C (Ω/km)	Nominal diameter (mm)	Approximate linear weight (kg/km)
1.5	30 x 0.25	13.7	3.8	23.6
2.5	50 x 0.25	8.21	4.3	34.0
4	56 x 0.30	5.09	4.9	48.9
6	84 x 0.30	3.39	6.0	70.5
10	80 x 0.40	1.95	7.2	117
16	126 x 0.40	1.24	8.6	173
25	196 x 0.40	0.795	10.4	268
35	276 x 0.40	0.565	11.9	360
50	396 x 0.40	0.393	14.1	514
70	360 x 0.50	0.277	15.9	689
95	485 x 0.50	0.210	18.2	907
120	608 x 0.50	0.164	20.7	1168
150	756 x 0.50	0.132	23.2	1428
185	944 x 0.50	0.108	25.2	1815
240	1221 x 0.50	0.0817	29.2	2444
300	1525 x 0.50	0.0654	31.6	3014
400	2037 x 0.50	0.0495	34.6	3768

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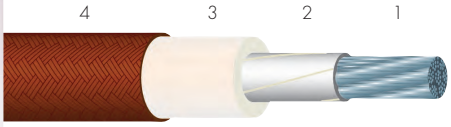
SILICONE INSULATED AND/OR SHEATHED
WIRES AND CABLES WITH REINFORCING BRAID

SILICOUL® 3.7 kV
-60 °C to +180 °C



1 • Flexible tin-plated copper core - class 5 as per IEC 60228.
2 • Optional separating tape.
3 • Insulation: Silicone rubber.
4 • Reinforcement: Coated synthetic fibre braid.

Approvals - standards

• Lloyd's Register approval certificates: compliance with the tests described as per standards IEC 60228, IEC 60092-350/360, IEC 60754-2, IEC 60332-1-1/2, IEC 60332-3-22 category A and IEC 60331-11/21.

Applications

• Cabling for rotating machines: motors, alternators, generators.
• Cabling for static machines: transformers, inductors, inverters, choppers.
• Shipbuilding and railway construction.
• Power cabinets.

Options

• Extra-flexible tin-plated copper core class 6 as per IEC 60228: contact us.
• Flexible or extra-flexible bare copper, silver-plated or nickel-plated core – class 5 or 6 as per IEC 60228: contact us.
• Without reinforcing braid (ref. SILICOUL® ST 3.7 KV): contact us.
• Varnished synthetic fibre reinforcing braid (ref. SILICOUL® RI 3.7 KV): contact us.
• Very high temperature fibre reinforcing braid: contact us.
• Silicone rubber double insulating layers (ref. SILICOUL® DI 3.7 KV): contact us.
• Electrical shielding:
> Tin-plated copper braid (ref. SILICOUL® SCR 3.7 KV): contact us.
• Outer flexible armour:
> Galvanised steel braid (ref. SILICOUL® BG 3.7 KV): contact us.
> Stainless steel braid (ref. SILICOUL® BI 3.7 KV): contact us.
• Multi-conductor cable made up of an assembly of several single conductor cables SILICOUL® 3.7 KV: contact us.
• Other markings: contact us.
• Other colours: contact us.
• Other nominal cross-sections: contact us.
• Other options and/or combinations of the options outlined above: contact us.

Characteristics

General

• Continuous operating temperatures: -60 °C to +180 °C.
• Good resistance to thermal shock and UV.
• Excellent mechanical strength.

Electrical

• Rated voltage: 3.7 kV.
• Test voltage: 10 kV.

Standard products

• Standard insulation colour: white.
• Standard reinforcing braid colour: brown.

SILICOUL® 3.7 kV

Flexible core • class 5 as per IEC 60228			INSULATED WIRE OR CABLE	
Nominal cross-section (mm²)	Nominal stranding	Maximum linear resistance at 20 °C (Ω/km)	Nominal diameter (mm)	Approximate linear weight (kg/km)
1.5	30 x 0.25	13.7	5.5	38.4
2.5	50 x 0.25	8.21	6.3	51.7
4	56 x 0.30	5.09	6.9	68.7
6	84 x 0.30	3.39	7.8	93.1
10	80 x 0.40	1.95	9.0	143
16	126 x 0.40	1.24	10.2	200
25	196 x 0.40	0.795	11.8	296
35	276 x 0.40	0.565	13.2	392
50	396 x 0.40	0.393	15.3	549
70	360 x 0.50	0.277	17.0	724
95	485 x 0.50	0.210	20.2	965
120	608 x 0.50	0.164	22.2	1227
150	756 x 0.50	0.132	24.4	1490
185	944 x 0.50	0.108	25.8	1852
240	1221 x 0.50	0.0817	29.6	2466
300	1525 x 0.50	0.0654	31.8	3026
400	2037 x 0.50	0.0495	35.7	3840

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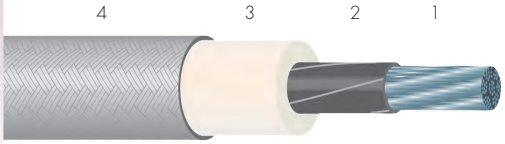
SILICONE INSULATED AND/OR SHEATHED
WIRES AND CABLES WITH REINFORCING BRAID

SILICOUL® 6.6 kV
-60 °C to +180 °C



1 • Flexible tin-plated copper core - class 5 as per IEC 60228.
2 • Semi-conductor tape(s).
3 • Insulation: Silicone rubber.
4 • Reinforcement: Coated synthetic fibre braid.

Approvals - standards

• Lloyd's Register approval certificates: compliance with the tests described as per standards IEC 60228, IEC 60092-350/354/360, IEC 60754-2, IEC 60332-1-1/2, IEC 60332-3-22 category A and IEC 60331-11/21.

Applications

• Cabling for rotating machines: motors, alternators, generators.
• Cabling for static machines: transformers, inductors, inverters, choppers.
• Shipbuilding and railway construction.
• Power cabinets.

Options

• Extra-flexible tin-plated copper core class 6 as per IEC 60228: contact us.
• Flexible or extra-flexible bare copper, silver-plated or nickel-plated core – class 5 or 6 as per IEC 60228: contact us.
• Without reinforcing braid (ref. SILICOUL® ST 6.6 KV): contact us.
• Varnished synthetic fibre reinforcing braid (ref. SILICOUL® RI 6.6 KV): contact us.
• Very high temperature fibre reinforcing braid: contact us.
• Silicone rubber double insulating layers (ref. SILICOUL® DI 6.6 KV): contact us.
• Electrical shielding:
> Tin-plated copper braid (ref. SILICOUL® SCR 6.6 KV): contact us.
• Outer flexible armour:
> Galvanised steel braid (ref. SILICOUL® BG 6.6 KV): contact us.
> Stainless steel braid (ref. SILICOUL® BI 6.6 KV): contact us.
• Multi-conductor cable made up of an assembly of several single conductor cables SILICOUL® 6.6 KV: contact us.
• Other colours: contact us.
• Other nominal cross-sections: contact us.
• Other options and/or combinations of the options outlined above: contact us.

Characteristics

General

• Continuous operating temperatures: -60 °C to +180 °C.
• Good resistance to thermal shock and UV.
• Excellent mechanical strength.

Electrical

• Rated voltage: 6.6 kV.
• Test voltage: 15 kV.

Standard products

• Standard insulation colour: white.
• Standard reinforcing braid colour: grey.

SILICOUL® 6.6 kV

Flexible core • class 5 as per IEC 60228			INSULATED WIRE OR CABLE	
Nominal cross-section (mm²)	Nominal stranding	Maximum linear resistance at 20 °C (Ω/km)	Nominal diameter (mm)	Approximate linear weight (kg/km)
2.5	50 x 0.25	8.21	7.7	68.1
4	56 x 0.30	5.09	8.3	86.2
6	84 x 0.30	3.39	9.2	113
10	80 x 0.40	1.95	10.4	166
16	126 x 0.40	1.24	11.6	226
25	196 x 0.40	0.795	13.1	323
35	276 x 0.40	0.565	14.6	425
50	396 x 0.40	0.393	16.7	586
70	360 x 0.50	0.277	18.3	763
95	485 x 0.50	0.210	20.9	987
120	608 x 0.50	0.164	23.0	1256
150	756 x 0.50	0.132	25.3	1526
185	944 x 0.50	0.108	26.9	1900
240	1221 x 0.50	0.0817	30.7	2517
300	1525 x 0.50	0.0654	32.9	3082
400	2037 x 0.50	0.0495	37.2	3929

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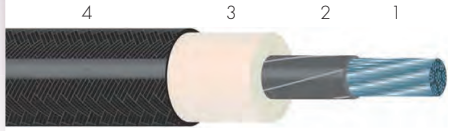
SILICONE INSULATED AND/OR SHEATHED
WIRES AND CABLES WITH REINFORCING BRAID

SILICOUL® 13.8 kV

-60 °C to +180 °C



1 • Flexible tin-plated copper core - class 5 as per IEC 60228.
2 • Semi-conductor tape(s).
3 • Insulation: Silicone rubber.
4 • Reinforcement: Coated synthetic fibre braid.

Approvals - standards

• Lloyd's Register approval certificates: compliance with the tests described as per standards IEC 60228, IEC 60092-350/354/360, IEC 60754-2, IEC 60332-1-1/2, IEC 60332-3-22 category A and IEC 60331-11/21.

Applications

• Cabling for rotating machines: motors, alternators, generators.
• Cabling for static machines: transformers, inductors, inverters, choppers.
• Shipbuilding and railway construction.
• Power cabinets.

Options

• Extra-flexible tin-plated copper core class 6 as per IEC 60228: contact us.
• Flexible or extra-flexible bare copper, silver-plated or nickel-plated core – class 5 or 6 as per IEC 60228: contact us.
• Without reinforcing braid (ref. SILICOUL® ST 13.8 KV): contact us.
• Varnished synthetic fibre reinforcing braid (ref. SILICOUL® RI 13.8 KV): contact us.
• Very high temperature fibre reinforcing braid: contact us.
• Silicone rubber double insulating layers (ref. SILICOUL® DI 13.8 KV): contact us.
• Electrical shielding:
> Tin-plated copper braid (ref. SILICOUL® SCR 13.8 KV): contact us.
• Outer flexible armour:
> Galvanised steel braid (ref. SILICOUL® BG 13.8 KV): contact us.
> Stainless steel braid (ref. SILICOUL® BI 13.8 KV): contact us.
• Multi-conductor cable made up of an assembly of several single conductor cables SILICOUL® 13.8 KV: contact us.
• Other colours: contact us.
• Other nominal cross-sections: contact us.
• Other options and/or combinations of the options outlined above: contact us.

Characteristics

General

• Continuous operating temperatures: -60 °C to +180 °C.
• Good resistance to thermal shock and UV.
• Excellent mechanical strength.

Electrical

• Rated voltage: 13.8 kV.
• Test voltage: 30 kV.

Standard products

• Standard insulation colour: white.
• Standard reinforcing braid colour: black.

SILICOUL® 13.8 kV

Flexible core • class 5 as per IEC 60228			INSULATED WIRE OR CABLE	
Nominal cross-section (mm²)	Nominal stranding	Maximum linear resistance at 20 °C (Ω/km)	Nominal diameter (mm)	Approximate linear weight (kg/km)
2.5	50 x 0.25	8.21	10.2	107
4	56 x 0.30	5.09	11.0	132
6	84 x 0.30	3.39	11.8	161
10	80 x 0.40	1.95	13.1	222
16	126 x 0.40	1.24	14.2	284
25	196 x 0.40	0.795	15.7	390
35	276 x 0.40	0.565	17.2	496
50	396 x 0.40	0.393	18.9	653
70	360 x 0.50	0.277	21.3	852
95	485 x 0.50	0.210	23.2	1071
120	608 x 0.50	0.164	25.2	1343
150	756 x 0.50	0.132	27.9	1643
185	944 x 0.50	0.108	29.3	2013
240	1221 x 0.50	0.0817	33.1	2646
300	1525 x 0.50	0.0654	35.5	3232
400	2037 x 0.50	0.0495	39.6	4082

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