High Temperature Cables

In addition to their resistance to high temperatures special properties of this product type are good mechanical strength and high aging stability if applied in dry environments.

We are distinguishing two categories of high temperature cables

Standard fibre glass cables

Application temperature range: -50°C up to +350°C.
By using special high temperature resistant glass fibre and corresponding conductor materials the maximum temperature reaches up to +550°C.

Ceramic material insulated cables

Special insulation and sheath materials based on ceramic and mica allow service at a constant ambient temperature of + 800 °C and peak temperatures up to +1550°C even under extreme conditions, e.g. application in glass-, iron- and steel fabrication.

In order to extend the fields of application, glass fibre materials can be combined with other high performance materials e.g. PTFE, FEP, Kapton®, Silicone or Mica.

These combinations ensure application in humid areas at an excellent dielectric strength.

Typical applications for high temperature cables are e.g.:
Electric heating systems, domestic appliances (stoves, ovens, heating plates), extrusion- and drying installation, industrial furnaces, steel-,iron-,glass- and ceramic fabrication etc.

Kapton® is a registered trademark of DuPont.

High Temperature Stranded Wires HTNI350 (-60/+350°C) (No stock item)

Conductor: Flexible nickel strands, Nickel 200
Insulation: 200 Fibreglass with silicone resin impregnation
Option: PU varnish
Temperature Range: - 60 °C to + 350 °C short duration < + 450 °C
Operating Voltage Range: 300 /500 V
Colour white
Test Voltage: 2,0 kV
Characteristics:

- Good ageing behaviour in hot environments
- UV resistant
- Good resistance against aggressive chemical atmospheres, ozone, oxygen
- Good resistance to usual chemicals
- Minimum bending radius 7,5 x diameter
- Halogen and asbestos free

Dimensions:

Cross-section	Number and diameter of stranding	Diameter of conductor	Nickel weight	Outer diameter and tolerance	Resistance 20 °C	Average weight
[mm²]	[n x mm]	[mm]	[kg/km]	[mm]	[Ω/km]	[kg/km]
0.22	7 x 0.20	0.60	2.20	1.50 ± 0.10	380	5.0
0.50	19 x 0.18	0.90	4.80	2.10 ± 0.15	180	8.5
0.75	19 x 0.224	1.10	7.20	2.30 ± 0.15	120	12.0
1.00	32 x 0.20	1.25	9.60	2.60 ± 0.15	90	15.0
1.50	37 x 0.225	1.55	14.40	2.75 ± 0.15	60	20.0
2.50	50 x 0.25	1.95	24.00	3.45 ± 0.15	36	32.0
4.00	56 x 0.30	2.50	38.00	4.10 ± 0.20	22	48.0
6.00	49 x 0.39	3.40	58.00	4.60 ± 0.20	15	70.0

Identification threadsaare possible in: yellow, red, green, blue, brown and black

High Temperature Stranded Wires HTNI450 (-60/+450°C) (No stock item)

Conductor: Flexible nickel strands, Nickel 200
Insulation: 200 Fibreglass with silicone resin impregnation
Option: PU varnish
Temperature Range: - 60 °C to + 450 °C short duration < + 650 °C
Operating Voltage Range: 300 /500 V
Colour: white
Test Voltage: 2,0 kV
Characteristics:

- Good ageing behaviour in hot environments
- UV resistant
- Good resistance against aggressive chemical atmospheres, ozone, oxygen
- Good resistance to usual chemicals
- Minimum bending radius 7,5 x diameter
- Halogen and asbestos free

Dimensions:

Cross-section	Number and diameter ofstranding	Diameter of conductor	Nickel weight	Outer diameter and tolerance	Resistance 20 °C	Average weight
[mm²]	[n x mm]	[mm]	[kg/km]	[mm]	[Ω/km]	[kg/km]
0.22	7 x 0.20	0.60	2.20	1.65 ± 0.15	380	5.0
0.50	19 x 0.18	0.90	4.80	2.15 ± 0.15	180	8.5
0.75	19 x 0.224	1.10	7.20	2.40 ± 0.15	120	12.0
1.00	32 x 0.20	1.25	9.60	2.60 ± 0.15	90	15.0
1.50	37 x 0.225	1.55	14.40	2.90 ± 0.15	60	20.0
2.50	50 x 0.25	1.95	24.00	3.40 ± 0.15	36	32.0
4.00	56 x 0.30	2.50	38.00	3.90 ± 0.20	22	48.0
6.00	49 x 0.39	3.40	58.00	4.60 ± 0.20	15	70.0

Identification threads are possible in: yellow, red, green, blue, brown and black

High Temperature Stranded Wires HTNI600 (-60/+600°C) *(No stock item)*

Conductor: Flexible nickel strands, Nickel 200
Insulation: 200 Fibreglass with silicone resin impregnation
Option: PU varnish
Temperature Range: - 60 °C to + 600 °C short duration < + 650 °C
Operating Voltage Range: 300 /500 V
Colour: white
Test Voltage: 2,0 kV
Characteristics:

- Good ageing behaviour in hot environments
- UV resistant
- Good resistance against aggressive chemical atmospheres, ozone, oxygen
- Good resistance to usual chemicals
- Minimum bending radius 7,5 x diameter
- Halogen and asbestos free

Dimensions:

Cross-section	Number and diameter of stranding	Diameter of conductor	Nickel-weight	Outer diameter and tolerance	Resistance 20 °C	Average weight
[mm²]	[n x mm]	[mm]	[kg/km]	[mm]	[Ω/km]	[kg/km]
0.22	7 x 0.20	0.60	2.20	1.60 ± 0.10	380	5.0
0.50	19 x 0.18	0.90	4.80	2.30 ± 0.15	180	8.5
0.75	19 x 0.224	1.10	7.20	2.40 ± 0.15	120	12.0
1.00	32 x 0.20	1.25	9.60	2.60 ± 0.15	90	15.0
1.50	37 x 0.225	1.55	14.40	2.95 ± 0.15	60	20.0
2.50	50 x 0.25	1.95	24.00	3.40 ± 0.15	36	32.0
4.00	56 x 0.30	2.50	38.00	3.90 ± 0.20	22	48.0
6.00	49 x 0.39	3.40	58.00	4.50 ± 0.20	15	70.0

Identification threads are possible in: yellow, red, green, blue, brown and black

High Temperature Stranded Wires HTNI700 (-60/+700°C) *(No stock item)*

Conductor: Flexible nickel strands, Nickel 200
Insulation: 200 Fibreglass with silicone resin impregnation
Option: PU varnish
Temperature Range: - 60 °C to + 700 °C short duration < + 900 °C
Operating Voltage Range: 300 /500 V
Colour: white
Test Voltage: 2,0 kV
Characteristics:

- Good ageing behaviour in hot environments
- UV resistant
- Good resistance against aggressive chemical atmospheres, ozone, oxygen
- Good resistance to usual chemicals
- Minimum bending radius 7,5 x diameter
- Halogen and asbestos free

Dimensions:

Cross-section	Number and diameter of stranding	Diameter of conductor	Nickel-weight	Outer diameter and tolerance	Resistance 20 °C	Average weight
[mm²]	[n x mm]	[mm]	[kg/km]	[mm]	[Ω/km]	[kg/km]
0.50	19 x 0.18	0.90	4.80	2.40 ± 0.15	180	8.5
0.75	19 x 0.224	1.10	7.20	2.60 ± 0.15	120	12.0
1.00	32 x 0.20	1.25	9.60	2.80 ± 0.15	90	15.0
1.50	37 x 0.225	1.55	14.40	3.40 ± 0.15	60	20.0
2.50	50 x 0.25	1.95	24.00	3.45 ± 0.15	36	32.0
4.00	56 x 0.30	2.50	38.00	4.00 ± 0.20	22	48.0
6.00	49 x 0.39	3.40	58.00	4.50 ± 0.20	15	70.0

Identification threads are possible in: yellow, red, green, blue, brown and black

PTFE/Fibre Glass Single Core Hook Up Wires TEGL

(No stock item)

Construction

Conductor:	Copper nickel plated or pure nickel
Insulation:	PTFE 5Y to VDE 0207 part 6
Insulation:	glass fibre braid with impregnation
Identification:	Optional coloured identification thread
Temperature Range	600 V
Rated Voltage:	50 °C to + 260 °C, short time 300 °C 600 Volt
Test Voltage	3,4 kV

Applications

- For wiring at high ambient temperatures and increased mechanical stress, e.g.
- domestic appliances (stoves, heating plates, ovens)
- extrusion and drying installations
- electric heating systems
- aerospace
- traffic technology

Note

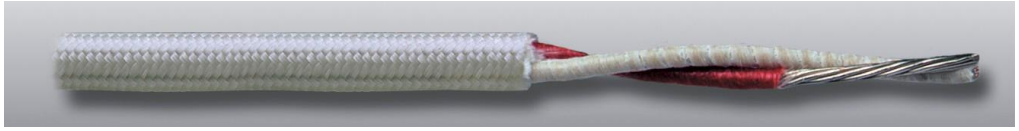
PTFE/fibre glass cores are also available in different cross sections, conductor materials and/or higher nominal voltages.
PTFE/fibre glass cores offer a very good dielectric strength in humid areas.

Main number	Cross Section [mm²]	Conductor construction	Max. strand-Ø [mm]	Outer-Ø [mm]	Copper weight [kg/km]	Weight approx. [kg/km]
SLTEGL0050	0.5	16 x 0.203	1	2	4.8	10
SLTEGL0075	0.75	24 x 0.203	1.25	2.2	7.5	14
SLTEGL0100	1	32 x 0.203	1.4	2.4	9.8	16
SLTEGL0150	1.5	30 x 0.254	1.7	2.7	14.4	22
SLTEGL0250	2.5	50 x 0.254	2.15	3.3	24.4	36
SLTEGL0400	4	56 x 0.3	2.7	3.8	38	52
SLTEGL0600	6	84 x 0.3	3.3	4.5	58	71

Item number: Main number Conductor
Conductor: N = nickel plated copper
R = pure nickel
Example: SLTEGL0050N
SLTEGL0050 = main number
N = nickel plated copper

Fibre Glass Cables GLHGL

(No stock item)



Construction

Conductor: Stranded wire, copper nickel plated or pure nickel
Insulation: 1 separator foil
glass fibre serving
glass fibre braid with impregnation
Identification: Coloured identification threads
Twisting: In layers with glass fibre filler
Sheath: Glass fibre braid with impregnation

Technical Data

Temperature Range: 50 °C bis + 350 °C, short time 500 °C
Rated Voltage: 300 / 300 Volt
Test Voltage: Core/core 1,5 kV

Applications

Cable is suitable for wiring at high ambient temperatures and increased mechanical stress, e.g.

- extrusion and drying installations
- electric heating systems
- steel and iron fabrication
- glass- and ceramic fabrication

Notes

Fibre glass cables are also available in different cross sections, conductor materials and/or higher nominal voltages.
On request, we also deliver 2-core constructions as flat cables.
The itemized cables are also available with high temperature resistant fibre glass for applications up to + 530 °C.

Main number	Cross Section [mm²]	Conductor construction	Max. strand-Ø [mm]	Core-Ø [mm]	Outer-Ø [mm]*	Copper weight [kg/km]	Weight approx. [kg/km]
SKGLHGL20022	2 x 0.22	7 x 0.20	0.66	1.1	2.5	4.4	13
SKGLHGL30022	3 x 0.22	7 x 0.20	0.66	1.1	2.7	6.6	15
SKGLHGL40022	4 x 0.22	7 x 0.20	0.66	1.1	2.9	8.8	17
SKGLHGL20034	2 x 0.34	7 x 0.254	0.82	1.2	3	6.9	19
SKGLHGL30034	3 x 0.34	7 x 0.254	0.82	1.2	3.3	11	15
SKGLHGL40034	4 x 0.34	7 x 0.254	0.82	1.2	3.5	13.8	33
SKGLHGL20050	2 x 0.5	16 x 0.203	1	1.5	3.5	9.7	26
SKGLHGL30050	3 x 0.5	16 x 0.203	1	1.5	3.7	15	36
SKGLHGL40050	4 x 0.5	16 x 0.203	1	1.5	4	20	45
SKGLHGL20075	2 x 0.75	24 x 0.203	1.25	2.3	5.1	15	44
SKGLHGL30075	3 x 0.75	24 x 0.203	1.25	2.3	5.6	23	56
SKGLHGL40075	4 x 0.75	24 x 0.203	1.25	2.3	6.1	30	83
SKGLHGL20100	2 x 1	32 x 0.203	1.4	2.5	5.6	20	63
SKGLHGL30100	3 x 1	32 x 0.203	1.4	2.5	6	30	88
SKGLHGL40100	4 x 1	32 x 0.203	1.4	2.5	6.5	40	113
SKGLHGL20150	2 x 1.5	30 x 0.254	1.7	2.8	6.4	30	74
SKGLHGL30150	3 x 1.5	30 x 0.254	1.7	2.8	6.8	45	103
SKGLHGL40150	4 x 1.5	30 x 0.254	1.7	2.8	7.4	60	133
SKGLHGL20250	2 x 2.5**	50 x 0.254	2.15	4.3	8.3	48	142
SKGLHGL30250	3 x 2.5**	50 x 0.254	2.15	4.3	10.2	74	172
SKGLHGL40250	4 x 2.5**	50 x 0.254	2.15	4.3	11.3	99	225
SKGLHGL20400	2 x 4**	56 x 0.3	2.7	5	11.1	77	184
SKGLHGL30400	3 x 4**	56 x 0.3	2.7	5	11.9	115	225
SKGLHGL40400	4 x 4**	56 x 0.3	2.7	5	13.2	154	310

* On request diameter tolerance according to intended purpose.
** 300 / 500 Volt construction

Item number: main number conductor
Conductor: N = nickel plated copper
R = pure nickel

Example: SKGLHGL20022N
SKGLHGL20022 = main number
N = nickel plated copper

Fibre Glass Cables GLHGLPG with Steel Wire Armouring (No stock item)

Main number	Cross section [mm²]	Conductor construction	Max. strand-Ø [mm]	Core-Ø [mm]	Outer-Ø [mm]*	Copper weight [kg/km]	Weight approx. [kg/km]
SKGLHGLP20022	2 x 0.22	7 x 0.20	0.66	1.1	3.3	4.4	25
SKGLHGLP30022	3 x 0.22	7 x 0.20	0.66	1.1	3.5	6.4	30
SKGLHGLP40022	4 x 0.22	7x 0.20	0.66	1.1	3.8	8.8	33
SKGLHGLP20034	2 x 0.34	7 x 0.254	0.82	1.2	3.7	7	32
SKGLHGLP30034	3 x 0.34	7 x 0.254	0.82	1.2	3.9	10.4	38
SKGLHGLP40034	4 x 0.34	7x 0.254	0.82	1.2	4.2	13.8	49
SKGLHGLP20050	2 x 0.5	16 x 0.203	1	1.5	4.2	10	42
SKGLHGLP30050	3 x 0.5	16 x 0.203	1	1.5	4.4	15	52
SKGLHGLP40050	4 x 0.5	16 x 0.203	1	1.5	4.8	20	62
SKGLHGLP20075	2 x 0.75	24 x 0.203	1.25	2.3	5.8	15	68
SKGLHGLP30075	3 x 0.75	24 x 0.203	1.25	2.3	6.3	23	88
SKGLHGLP40075	4 x 0.75	24 x 0.203	1.25	2.3	6.8	30	106
SKGLHGLP20100	2 x 1	32 x 0.203	1.4	2.5	6.3	20	86
SKGLHGLP30100	3 x 1	32 x 0.203	1.4	2.5	6.7	30	111
SKGLHGLP40100	4 x 1	32 x 0.203	1.4	2.5	7.2	40.5	142
SKGLHGLP20150	2 x 1.5	30 x 0.254	1.7	2.8	7.1	30	97
SKGLHGLP30150	3 x 1.5	30 x 0.254	1.7	2.8	7.5	44.5	133
SKGLHGLP40150	4 x 1.5	30x 0.254	1.7	2.8	8.1	59	163
SKGLHGLP20250	2 x 2.5**	50 x 0.254	2.15	4.3	8.8	48	175
SKGLHGLP30250	3 x 2.5""	50 x 0.254	2.15	4.3	10.9	74	213
SKGLHGLP40250	4 x 2.5**	50 x 0.254	2.15	4.3	12.3	98	297
SKGLHGLP20400	2 x 4**	56 x 0.3	2.7	5	12.1	77	253
SKGLHGLP30400	3 x 4**	56 x 0.3	2.7	5	12.9	115	295
SKGLHGLP40400	4 x 4**	56 x 0.3	2.7	5	14.2	154	394

* On request diameter tolerance according to intended purpose.

** 300/500 Volt construction

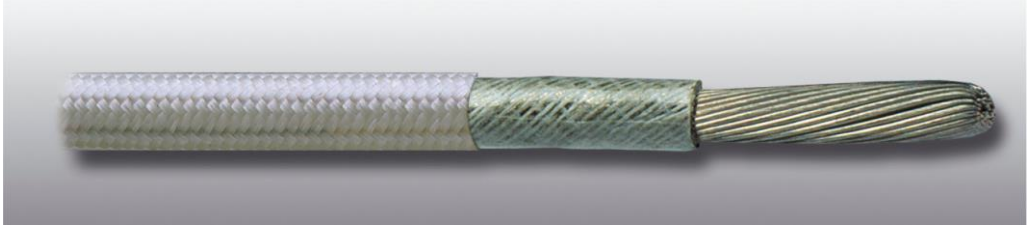
Item number: main number conductor

Conductor: N = nickel plated copper
R = pure nickel

Example: SKGLHGLP20022N
SKGLHGLP20022 = main number
N = nickel plated copper

Mica/Ceramic Fibre Single Core GLIGA

(No stock item)



Construction

Conductor: Cu nickel plated, pure nickel or special alloys
Insulation: Mica wrapping
Braid of impregnated ceramic fibre
Identification: Coloured identification thread
Twisting: In layers with filler
Wrapping: Mica tape
Sheath: Braid of impregnated ceramic fibre
Armouring: Galvanized steel wire or stainless steel braid (optional)
:

Technical Data

Temperature Range: Cu nickel plated - 50 °C to + 400 °C
pure nickel NiCr8020 - 50 °C to + 700 °C
Cu nickel plated - 50 °C to + 1250 °C
Rated Voltage: 300/500 Volt
Test Voltage: 2 kV

Applications

Cable is suitable for wiring at high ambient temperatures and increased mechanical stress, e.g.

- glass-, steel and iron fabrication
- industrial furnaces
- electric heating systems

Main number	Cross section [mm²]	Conductor construction	Max. core-Ø [mm]	Outer-Ø [mm]*	Copper weight [kg/km]	Weight approx. [kg/km]
SLGLIGA0050	0.5	16 x 0.203	1	2.4	4.8	11
SLGLIGA0075	0.75	24 x 0.203	1.25	2.5	7.5	18
SLGLIGA0100	1	32 x 0.203	1.4	3.2	9.8	23
SLGLIGA0150	1.5	30 x 0.254	1.7	3.6	14.4	28
SLGLIGA0250	2.5	50 x 0.254	2.15	3.9	24.4	46
SLGLIGA0400	4	56 x 0.30	2.7	5.2	38	70
SLGLIGA0600	6	84 x 0.30	3.3	6.0	58	104
SLGLIGA1000	10	80 x 0.4	4.8	7.4	100	147

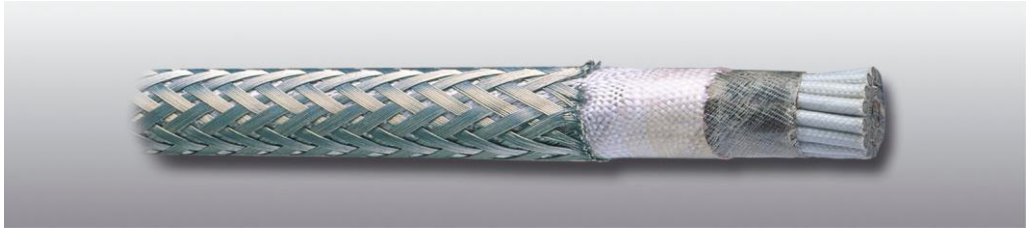
* On request diameter tolerance according to intended purpose.

Item number: Main number conductor
Conductor: NPC = nickel plated copper
R = pure nickel NiCr = NiCr8020

Example: SKGLHGLP20022NPC
SKGLHGLP20022 = main number
NPC = nickel plated copper

Multicore Mica/Ceramic Fibre Cable GLIGAHGLIGA(P) with Steel Armouring

(No stock item)



Construction

Conductor: Cu nickel plated, pure nickel or special alloys
Insulation: Mica wrapping
Braid of impregnated ceramic fibre
Identification: Coloured identification thread
Twisting: In layers with filler
Wrapping: Mica tape
Sheath: Braid of impregnated ceramic fibre
Armouring: Galvanized steel wire or stainless steel braid (optional)

Technical Data

Temperature Range: - 50 °C to + 1250 °C
Rated Voltage: 380 Volt
Test Voltage: Core/core 2 kV

Applications

Cable is suitable for wiring at high ambient temperatures and increased mechanical stress, e.g.

- glass- and ceramic fabrication
- industrial furnaces
- electric heating systems

Notes

Mica/ceramic fibre cables are also available in different cross sections, conductor materials and/or higher nominal voltages. The cables are also available with armouring.

Main number	Cross section [mm²]	Conductor construction	Max. -strand Ø [mm]	Core-Ø [mm]	Outer-Ø [mm]*	Copper weight [kg/km]	Weight approx. [kg/km]
SKGLIGAH20100	2 x 1	32 x 0.203	1.4	3.4	8.2	20	77
SKGLIGAH30100	3 x 1	32 x 0.203	1.4	3.4	8.7	30	100
SKGLIGAH40100	4 x 1	32 x 0.203	1.4	3.4	9.7	40	125
SKGLIGAH50100	5 x 1	32 x 0.203	1.4	3.4	10.6	50	157
SKGLIGAH20150	2 x 1.5	30 x 0.254	1.7	3.7	8.8	29	92
SKGLIGAH30150	3 x 1.5	30 x 0.254	1.7	3.7	9.4	44	120
SKGLIGAH40150	4 x 1.5	30 x 0.254	1.7	3.7	10.4	58	151
SKGLIGAH50150	5 x 1.5	30 x 0.254	1.7	3.7	11.3	73	190
SKGLIGAH50250	2 x 2.5	50 x 0.254	2.15	4.0	9.5	49	124
SKGLIGAH30250	3 x 2.5	50 x 0.254	2.15	4.0	10.1	74	158
SKGLIGAH40250	4 x 2.5	50 x 0.254	2.15	4.0	11.1	99	200
SKGLIGAH50250	5 x 2.5	50 x 0.254	2.15	4.0	12.3	124	245
SKGLIGAH20400	2 x 4	56 x 0.3	2.7	4.8	11.1	77	172
SKGLIGAH30400	3 x 4	56 x 0.3	2.7	4.8	11.9	116	238
SKGLIGAH40400	4 x 4	56 x 0.3	2.7	4.8	13.1	154	306
SKGLIGAH50400	5 x 4	56 x 0.3	2.7	4.8	14.5	193	404
SKGLIGAH20600	2 x 6	84 x 0.3	3.3	5.4	12.3	118	234
SKGLIGAH30600	3 x 6	84 x 0.3	3.3	5.4	13.2	176	324
SKGLIGAH40600	4 x 6	84 x 0.3	3.3	5.4	14.5	235	417
SKGLIGAH50600	5 x 6	84 x 0.3	3.3	5.4	16.1	295	529

* On request diameter tolerance according to intended purpose.

Item number: main number conductor
Conductor: N = nickel plated copper
R = pure nickel

Example: SKGLIGAH20100N
SKGLIGAH20100 = main number
N = nickel plated copper