



## **HIGH TEMPERATURE CABLES**

NGHT Series .....	144
SIHF Single Series .....	145
SIHF Multi Series .....	146
SICY Series .....	148

# HIGH TEMPERATURE CABLES

## NGHT SERIES

**Extreme Performance High Temperature Glass Fibre Nickel Cable 500V 400°C**



### APPLICATIONS:

**Extreme High Temperature** Suitable for wiring in aerospace, steel making and chemical industries where temperatures range from -60° to 400°C.

**High Temperature** Suitable for wiring on kilns, boilers and other high temperature applications and surfaces to 400°C.

**Low Temperature** Used for wiring in industrial cool stores and freezers to -60°C.

**Power** Suitable for wiring of public lighting in medical areas.

### PRODUCT FEATURES:

- ▶ Fine stranded nickel conductor
- ▶ Good electronic, chemical and radiation properties
- ▶ Very little change to insulation resistance at high temperature
- ▶ UV stabilised
- ▶ Flame retardant

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Glass fibre with special heat resistant impregnation (Class C).

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -60°C to 400°C (up to 450°C for short time).

**Maximum Conductor Temperature** 400°C.

**Rated Voltage** 500v.

**Minimum Bending Radius** Fixed 18 x cable diameter.

**Sheath Colour** Beige.

**Relevant Standards** DIN VDE 0295,

CE Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size (mm <sup>2</sup> )	Approx. Stranding No. of wires x mm	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
NGHT1/1.5	1 x 1.5	30/0.25	2.8	18
NGHT1/2.5	1 x 2.5	50/0.25	3.4	30
NGHT1/4.0	1 x 4.0	56/0.30	4.5	47
NGHT1/6.0	1 x 6.0	84/0.30	4.9	71

Size (mm <sup>2</sup> )	Current Rating For Two Cables In Air			At Ambient Temperature °C		
	Amp @ 150°C	Amp @ 200°C	Amp @ 250°C	Amp @ 300°C	Amp @ 350°C	Amp @ 400°C
1.5	13.2	12.3	10.9	9.4	7.7	5.3
2.5	18.5	17.2	15.2	13.2	10.8	7.5
4.0	25.2	23.4	20.7	18.0	14.7	10.2
6.0	32.8	30.4	26.9	23.4	19.1	13.2

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

## SIHF SINGLE CORE SERIES

**High Performance Flexible Silicone Rubber High Temperature Cable  
300/500V 180°C**



### APPLICATIONS:

**High Temperature** Suitable for wiring on kilns, boilers, lighting and other high temperature applications and surfaces to 180°C.

**Low Temperature** Used for wiring in industrial cool stores and freezers to -60°C.

**Power** Suitable for wiring of public lighting in medical areas.

### PRODUCT FEATURES:

- ▶ Halogen – Free IEC 60754
- ▶ Tinned fine stranded copper conductor
- ▶ High ignition or flashpoint
- ▶ Minimal change to dielectric strength at high temperature
- ▶ Minimal change to insulation resistance at high temperature
- ▶ In the event of a fire the silicone forms an insulating layer of SiO<sub>2</sub>
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Water and moisture resistant
- ▶ Heat, oil and chemical resistant (See *Technical Section*)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Silicone rubber.

**Sheath** Silicone rubber.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -60°C to 180°C / Flexing -40°C to 180°C.

**Maximum Conductor Temperature** 180°C (Current ratings are based on 30°C air temp. See technical section for de-rating factors).

**Rated Voltage** U<sub>o</sub>/U 300/500v.

**Max AC Operating Voltage** U<sub>o</sub> 318v.



**Minimum Bending Radius** Fixed 4 x cable diameter / Flexing 7.5 x cable diameter.

#### Sheath Colour

0.5 to 4.0mm<sup>2</sup> – Black, Red, Blue, White, Green/Yellow, Brown, Grey.  
6.0 to 16.0mm<sup>2</sup> – Black.

25.0mm<sup>2</sup> and above – Red, Black. Other colours subject to availability.

**Relevant Standards** IEC 60332-1, IEC 60754-1, IEC 60228, VDE 0282, VDE 0295, VDE 0472, **CE** Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size  (mm <sup>2</sup> )	Approx. Stranding  No. of wires x mm	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Nominal Amps un-enclosed protected from sun or in ventilated duct @ 150°C fixed installation	
					Spaced 	Laid in ventilated duct 
SIHF1/0.5	1 x 0.5	16/0.21	1.9	8	10	6
SIHF1/0.75	1 x 0.75	24/0.21	2.1	12	15	9
SIHF1/1.0	1 x 1.0	32/0.21	2.3	13	19	12
SIHF1/1.5	1 x 1.5	30/0.25	2.7	18	24	16
SIHF1/2.5	1 x 2.5	50/0.25	3.4	30	32	21
SIHF1/4.0	1 x 4.0	56/0.30	4.0	47	42	28
SIHF1/6.0	1 x 6.0	84/0.30	4.5	71	54	36
SIHF1/10	1 x 10.0	80/0.40	6.8	119	73	49
SIHF1/16	1 x 16.0	128/0.40	7.8	187	98	65
SIHF1/25	1 x 25.0	200/0.40	10.3	290	129	85
SIHF1/35	1 x 35.0	280/0.40	11.6	398	158	105
SIHF1/50	1 x 50.0	400/0.40	13.9	560	198	140

### CONVERSION FACTORS FOR DEVIATING AMBIENT TEMPERATURES

Temp. °C	Up to 150	150–155	155–160	160–165	165–170	170–175
<b>Derating Factor</b>	1.00	0.91	0.82	0.71	0.58	0.41

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

# HIGH TEMPERATURE CABLES

## SIHF MULTI CORE SERIES

**High Performance Flexible Silicone Rubber High Temperature Cable  
300/500V 180°C**



### APPLICATIONS:

**High Temperature** Suitable for wiring on kilns, boilers, lighting and other high temperature applications and surfaces not exceeding 180°C.

**Low Temperature** Used for wiring in industrial cool stores and freezers to -60°C.

### PRODUCT FEATURES:

- ▶ Halogen – Free IEC 60754
- ▶ Tinned fine stranded copper conductor
- ▶ High ignition or flashpoint
- ▶ Minimal change to dielectric strength at high temperature
- ▶ Minimal change to insulation resistance at high temperature
- ▶ In the event of a fire the silicone forms an insulating layer of SiO<sub>2</sub>
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Very good behaviour to variations of outdoor temperature
- ▶ Heat, oil and chemical resistant (See *Technical Section*)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Silicone rubber.

**Sheath** Silicone rubber.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -60°C to 180°C / Flexing -40°C to 180°C.

**Maximum Conductor Temperature** 180°C.

**Rated Voltage** U<sub>o</sub>/U 300/500v.

**Max AC Operating Voltage** U<sub>o</sub> 318v.

**Minimum Bending Radius** Fixed 4 x cable diameter / Flexing 7.5 x cable diameter.

**Sheath Colour** Reddish-Brown.


#### Standard Core Colours

3 Core – Blue, Brown, Green/Yellow.


4 Core – Brown, Black, Grey, Green/Yellow.

5 Core – Blue, Brown, Black, Grey, Green/Yellow.

Multi Core – Black Numbered, Green/Yellow.

**Relevant Standards** IEC 60332-1, IEC 60754-2, IEC6 0228, VDE 0472, VDE 0282,  Directive 2006/95/EC,


**RoHS** Compliant.

Code	No. of Cores x Size  (mm <sup>2</sup> )	Approx. Stranding  No. of wires x mm	Approx. Overall Diameter  (mm)	Approx. Weight  (Kg/Km)	Nominal Amps un-enclosed protected from sun @ 150°C fixed installation
					Touching or in ventilated ducts 
SIHF3/0.75	3 x 0.75	24/0.20	6.8	76	12
SIHF3/1.0	3 x 1.0	32/0.20	7.4	93	15
SIHF3/1.5	3 x 1.5	30/0.25	8.0	117	18
SIHF3/2.5	3 x 2.5	50/0.25	9.7	179	26
SIHF4/0.75	4 x 0.75	24/0.20	7.8	101	12
SIHF4/1.5	4 x 1.5	30/0.25	8.8	145	18
SIHF4/2.5	4 x 2.5	50/0.25	10.6	222	26
SIHF4/4.0	4 x 4.0	56/0.30	13.2	346	34
SIHF4/6.0	4 x 6.0	84/0.30	15.6	497	44
SIHF4/10	4 x 10.0	80/0.40	19.1	778	61
SIHF5/0.5	5 x 0.5	16/0.20	7.8	59	3
SIHF5/1.5	5 x 1.5	30/0.25	9.6	175	18
SIHF5/2.5	5 x 2.5	50/0.25	11.6	268	26

Continued over page ▶

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.

## SIHF MULTI CORE SERIES continued

Code	No. of Cores x Size	Approx. Stranding	Approx. Overall Diameter	Approx. Weight	Nominal Amps un-enclosed protected from sun @ 150°C fixed installation
	(mm <sup>2</sup> )	No. of wires x mm	(mm)	(Kg/Km)	Touching or in ventilated ducts 
<b>SIHF5/4.0</b>	5 x 4.0	56/0.30	14.4	359	34
<b>SIHF7/0.75</b>	7 x 0.75	24/0.20	9.2	148	12
<b>SIHF7/1.5</b>	7 x 1.5	30/0.25	10.4	220	18
<b>SIHF12/1.5</b>	12 x 1.5	30/0.25	14.6	413	18
<b>SIHF19/1.5</b>	19 x 1.5	30/0.25	17.0	591	18

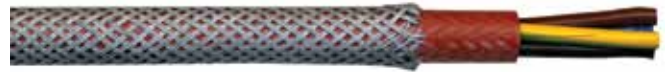
### CONVERSION FACTORS FOR DEVIATING AMBIENT TEMPERATURES

Temp. °C	Up to 150	150–155	155–160	160–165	165–170	170–175
<b>Derating Factor</b>	1.00	0.91	0.82	0.71	0.58	0.41

# HIGH TEMPERATURE CABLES

## SICY SERIES

**High Performance Flexible Silicone Rubber SWB High Temperature Cable 300/500V 180°C**



### APPLICATIONS:

**High Temperature** Suitable for wiring on kilns, boilers, lighting and other high temperature applications and surfaces not exceeding 180°C.

**Low Temperature** Used for wiring in industrial cool stores and freezers to -60°C.

**Tough Environments** The steel wire external braid adds to its mechanical strength and ensures disturbance free transmission of signals.

### PRODUCT FEATURES:

- ▶ Tinned fine stranded copper conductor
- ▶ High ignition or flashpoint
- ▶ Halogen Free
- ▶ Minimal change to dielectric strength at high temperature
- ▶ Minimal change to insulation resistance at high temperature
- ▶ In the event of a fire the silicone forms an insulating layer of SiO<sub>2</sub>
- ▶ UV stabilised
- ▶ Flame retardant
- ▶ Resistant to environmental factors such as oxidation, ozone and sunlight
- ▶ Heat, oil and chemical resistant (*See Technical Section*)

### CONSTRUCTION:

**Conductor** Annealed tinned copper stranded high flexibility (Class 5).

**Insulation** Silicone rubber.

**Sheath** Silicone rubber.

**Screen** External steel wire braid.

### CHARACTERISTICS:

**Operating Temperature Range** Fixed -60°C to 180°C / Flexing -40°C to 180°C.

**Maximum Conductor Temperature** 180°C.

**Rated Voltage** U<sub>o</sub>/U 300/500v

**Max AC Operating Voltage** U<sub>o</sub> 318v.

**Minimum Bending Radius** Fixed 10 x cable diameter / Flexing 15 x cable diameter.

**Sheath Colour** Tinned steel wire braid over glass fibre tape over reddish-brown silicone.

#### Standard Core Colours

3 Core – Blue, Brown, Green/Yellow.

4 Core – Brown, Black, Grey, Green/Yellow.

**Relevant Standards** DIN VDE 0295, IEC 60332-1, IEC 60754-1, IEC 60228, VDE 0472, VDE 0282,

CE Directive 2006/95/EC, **RoHS** Compliant.

Code	No. of Cores x Size (mm <sup>2</sup> )	Approx. Stranding No. of wires x mm	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)	Nominal Amps un-enclosed protected from sun @ 150°C fixed installation
					Touching or in ventilated duct
SICY3/1.5	3 x 1.5	30/0.25	7.9	145	18
SICY3/2.5	3 x 2.5	50/0.25	9.5	205	26
SICY4/1.5	4 x 1.5	30/0.25	8.7	173	18
SICY4/2.5	4 x 2.5	50/0.25	10.3	278	26
SICY4/4.0	4 x 4.0	56/0.30	12.1	384	34

### CONVERSION FACTORS FOR DEVIATING AMBIENT TEMPERATURES

Temp. °C	Up to 150	150–155	155–160	160–165	165–170	170–175
Derating Factor	1.00	0.91	0.82	0.71	0.58	0.41

Firstflex has taken every precaution to ensure accurate information in this catalogue, but accept no liability for any errors or omissions. Firstflex reserves the right to modify specifications at any time.