Engin®

HEATERS & CABLE INDUSTRY
TRADE INC. CO.

“Provides solutions with
broad experience and leading quality”

www.enginrezistans.com.tr

2018 PRODUCT CATALOGUE

ABOUT US

Engin Heaters and Cable Industry has become a preferred company by national and international firms with its quality products since 2002 by being innovative, open to developments and by keeping pace with the technology.

Our company started its operations with the production of the resistances used on injection and extrusion machines in plastic industry. Then, the company achieved to produce many different kinds of resistances needed in other fields of the industry.

By having open-minded managemet understanding to developments and innovations,with an emphasis on R & D studies, we have worked on high-temperature resistant insulation materials and expanded production area by manufacturing high-temperature resistant cables, heating cables, and measurement control cables.

Our firm has been producing all kinds of silicone elastomer insulated heating cables which are generally used in the cooling sector, and it has become a supplier to the leading companies of the cooling sector and Engin has become one of the leading companies in its sector.

Moreover, our company has gained the ability to produce mica, fiberglass and fluoropolymer insulated high wattage heating cables in Turkey as a first domestic manufacturer. The quality of our products has been proved by our customers' satisfaction

Our firm has certified the quality of its products by national and international quality certificates.

Our company continues its researches and manufactures by designing products with different characteristics that can be used for underfloor heating cables in architectural applications and for outdoor applications as snow&ice preventions systems. Engin Heaters and Cable Industry is the first domestic capital in Turkey in this field.

Our Vision: To be a preferred brand in international market and to export %75 of its production.

Our Mission: is to be a firm that has high business standards, that is open to innovations and developments, to give great importance to customer satisfaction, environmental awareness and to implement occupational health and safety procedures perfectly.

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RESIDENTIAL HEATING

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Engin Heaters and Cable Industry Inc. has offered solution proposals and quality services to heating and cooling sectors with its diverse product groups since the foundation of the firm at 2002. The firm has started its business with industrial heating elements at first. Later, it has started to produce heat resistance, high temperature cables, temperature measurement and control cables. With the latest investments, The firm completed project works about heating cable production and became the first national capital heating cable producer in the sector.
Engin Resistance and Cable Industry Inc. continues to provide its services at head office in Istanbul Ikıtelli Organised Industrial Zone, Demirciler Site and at production facility in 5000m2 Kırklareli Organised Industrial Zone.

APPLICATION AREAS OF HEATING CABLES

Heating cable systems work based on principles of converting the electrical energy to thermal energy by utilizing highly resistive conductors. 220V or 380V system voltages can usually fit the requirements of these cables, however to operate cables efficiently, the system needs to be checked by heat sensors and controlled by thermostats.

Architectural Applications;

-Indoor Underfloor Heating Systems

-Mirror Back Heating, Mist Prevention

-Electric Heating for Turkish Baths, Sauna, Mosques, Churches etc.

Outdoor Applications;

-Snow & Ice Prevention Systems for Roof Surfaces

-Snow & Ice Prevention Systems for Under Asphalt, Concrete, Paver Stone (Bridges, Road, Garage Ramps, Stairs, Pavements etc.)

-Sport Fields Undergrass Heating, Snow & Ice Prevention Systems

Other Application Areas;

-Pipe Heating Systems

-Agricultural, Greenhouse and Livestock Breeding Sectors

-Cold Storage Rooms

-Industrial and Domestic Cooling Devices

-Industrial Storage Tank Heating

-Snow&Ice and Freezing Prevention Systems for Rail Transport Systems.

INTEGRATED SYSTEMS

Heating resistance cables, thermostats(regulators) and various sensors create an integrated heating cable system together. Thanks to this integrated system, heating elements can heat the environment adequately and control of the system becomes more efficient and easier. Besides, this systems can provide an opportunity to user to control it manually, automaticly or remotely.

FLEXIBLE SOLUTIONS

Easy installation, wide range application area for interiors and outdoors, possibility to be applied under various floor finishing materials provide flexible solutions to user for architectural and industrial applications.

ENERGY EFFICIENCY

By the technological advancements, thanks to developing thermostats and sensitive sensors, heating cable systems work with the energy efficiency priority.

USER COMFORT - SAFETY

By interior and outdoor applications, heating cables provide comfort, ease and safety to its users. For instance; while snow & ice melting systems are protecting buildings, environmental components and construction materials from harsh weather conditions, they also have supportive system roles to protect pedestrians and vehicles from unpredictable accidents on bridges, roads, ramps, and pavements.

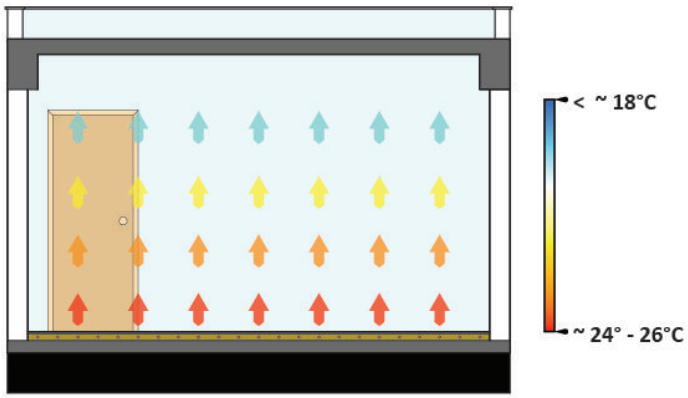
USER FRIENDLY

When power need is well calculated, accurate thermostat and sensor are used, and system is applied by following required standards, the expected life of heating cables is almost equal to economic life of the building/construction. Also, these systems do not require repititive maintenances.

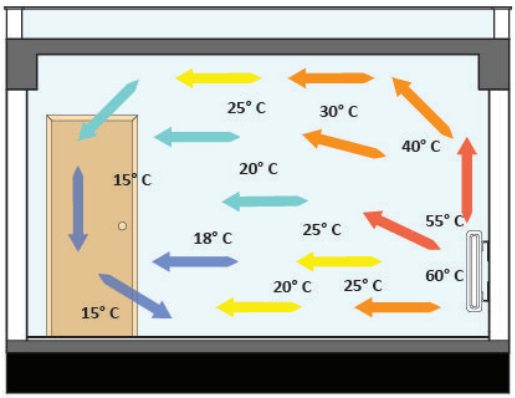
ADVANTAGES OF UNDERFLOOR HEATING SYSTEMS - THERMAL COMFORT

While the heat radiation is high or sufficient next to heat source in classic systems like radiators, stoves and fireplaces, thermal balance gets lost in distance. On the contrary of classic heating systems, for underfloor heating systems, heating cables are placed on floor in equal distances. This situation provides us comfortable environments by circulating the heat homogeneously in space from bottom to top.

INDOOR HEATING SYSTEMS
THERMAL COMFORT DIAGRAM



ELECTRIC UNDERFLOOR HEATING SYSTEMS



PANEL/RADIATOR HEATING SYSTEMS

USE OF HEATING CABLE SYSTEMS

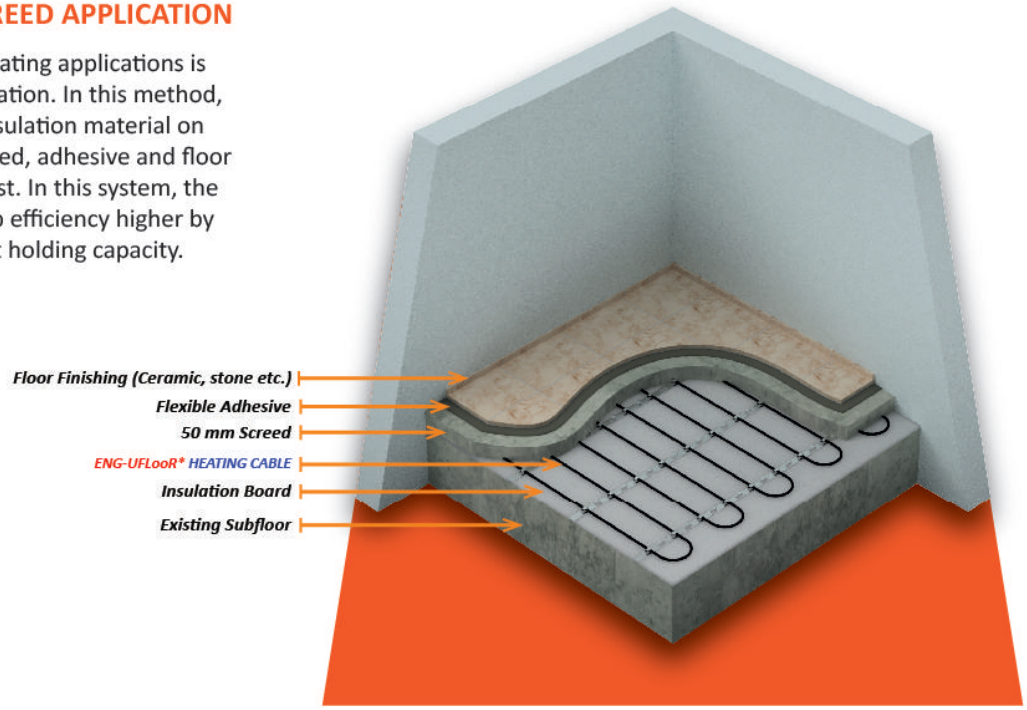
It is possible to apply heating cable systems compatible with almost every indoor and outdoor floor finishing materials of today.

Architectural Applications;

Heating cables can be used under different floor finishing materials like ceramic, marble, various parquet types, wooden floors, in wet floors like bathrooms, turkish baths, and behind mirrors to prevent misting. Also, it is a common preference for heating of public buildings like mosques, churhces. etc.

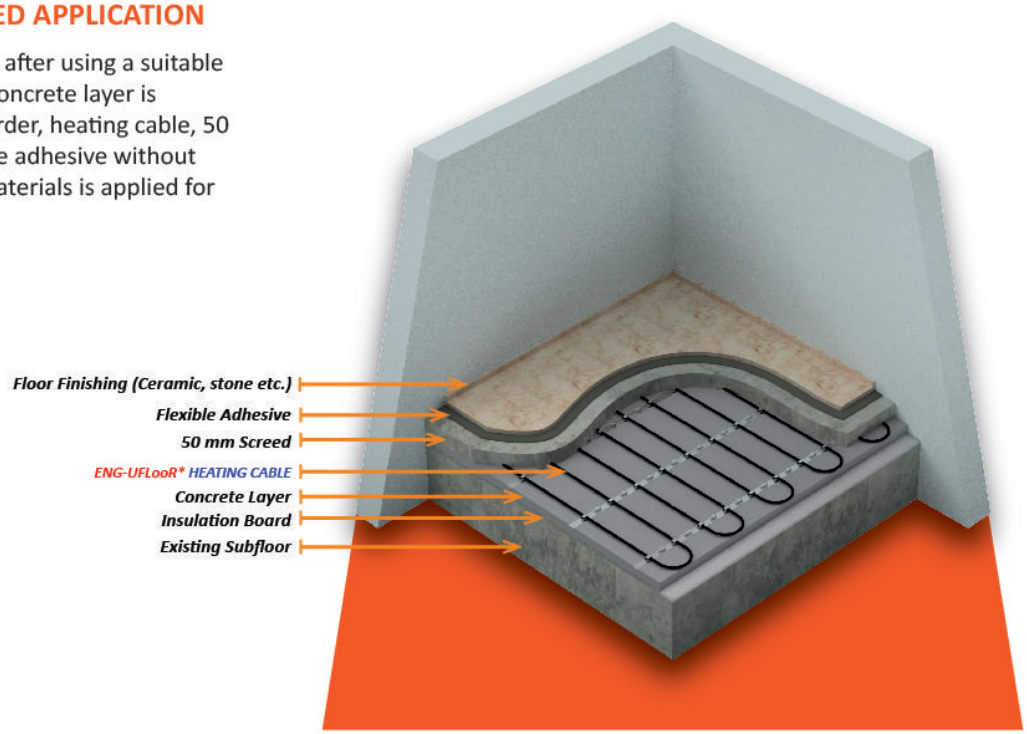
ON INSULATION, IN SCREED APPLICATION

An example of underfloor heating applications is on insulation inscreed installation. In this method, after placing a convenient insulation material on existing subfloor, a thick screed, adhesive and floor finishing is applied for the rest. In this system, the most essential part is to keep efficiency higher by utilizing from concrete's heat holding capacity.



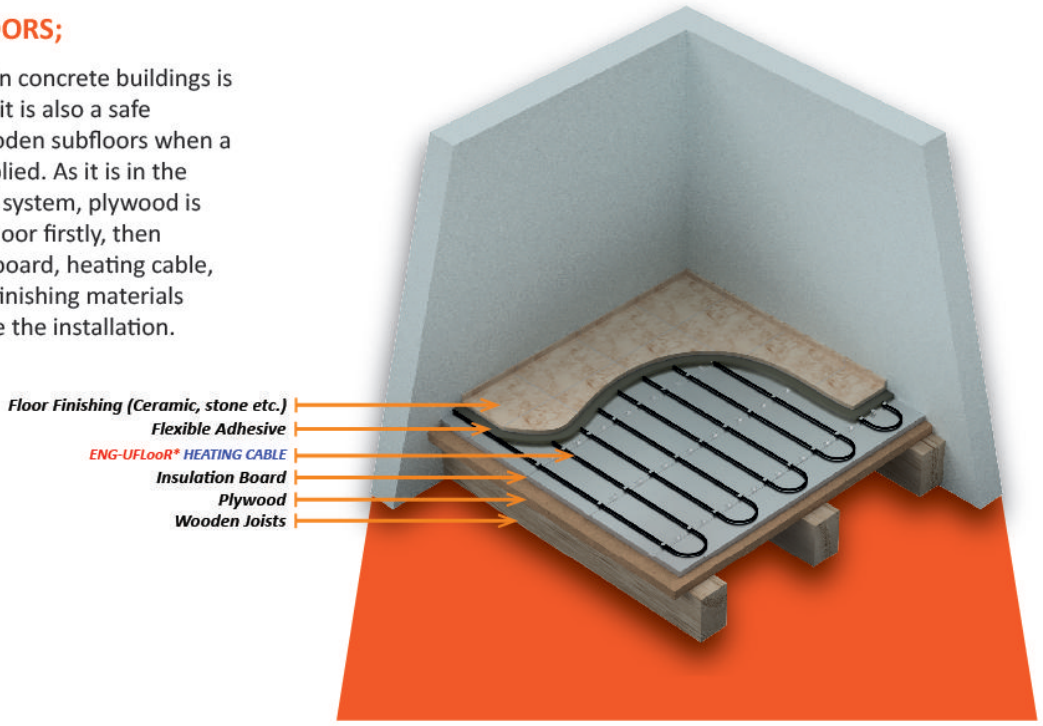
ON CONCRETE, INSCREED APPLICATION

In one of different examples, after using a suitable insulation on existing floor, concrete layer is applied. Then, in the same order, heating cable, 50 mm screed or directly flexible adhesive without screed, and floor finishing materials is applied for the application.

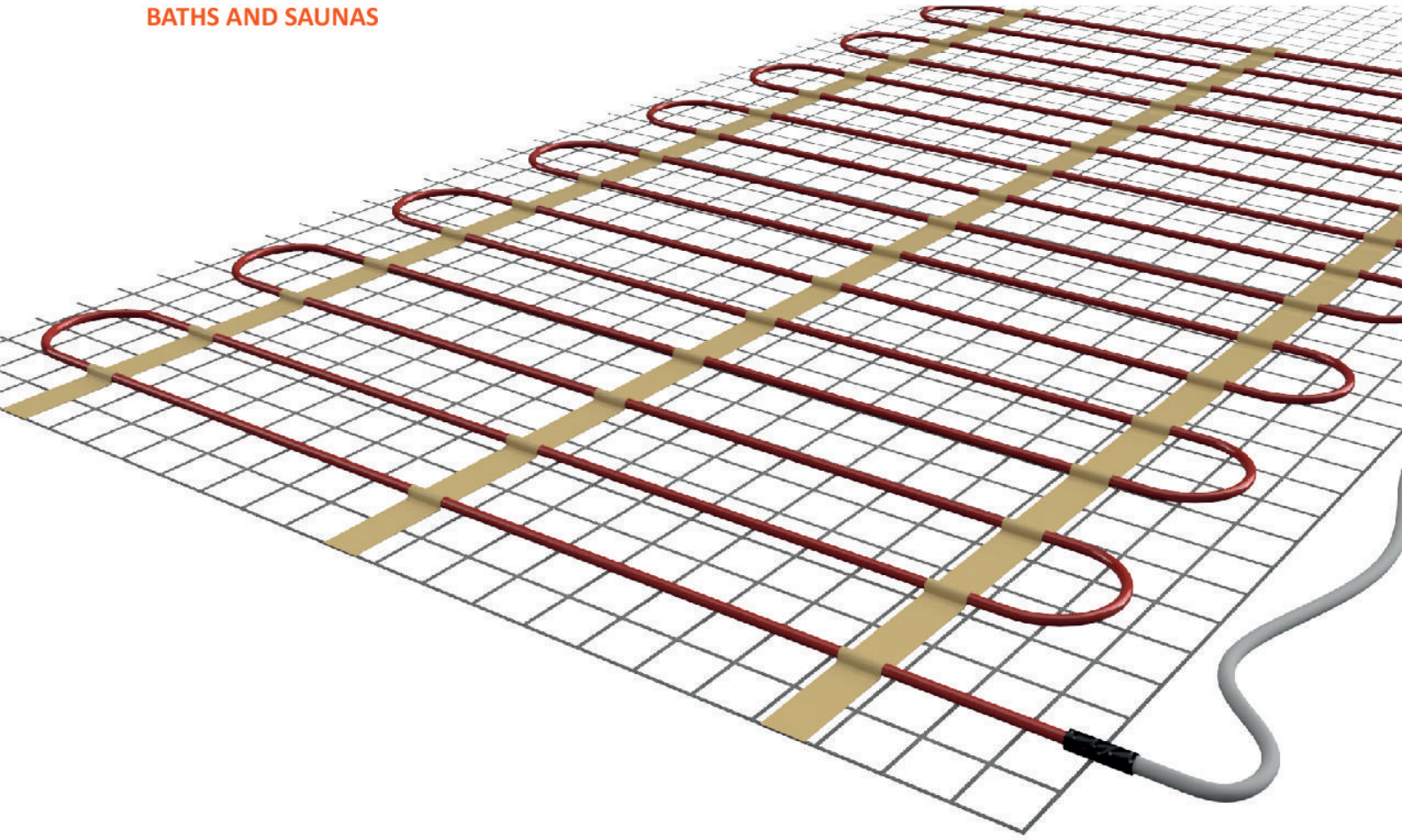


FOR WOODEN SUBFLOORS;

While use of heating cable in concrete buildings is an appropriate application, it is also a safe preference for using on wooden subfloors when a convenient insulation is applied. As it is in the example at the right, in this system, plywood is placed on the wooden subfloor firstly, then aliminium faced insulation board, heating cable, flexible adhesive and floor finishing materials follows in order to complete the installation.



BATHS AND SAUNAS



Outdoor Applications;

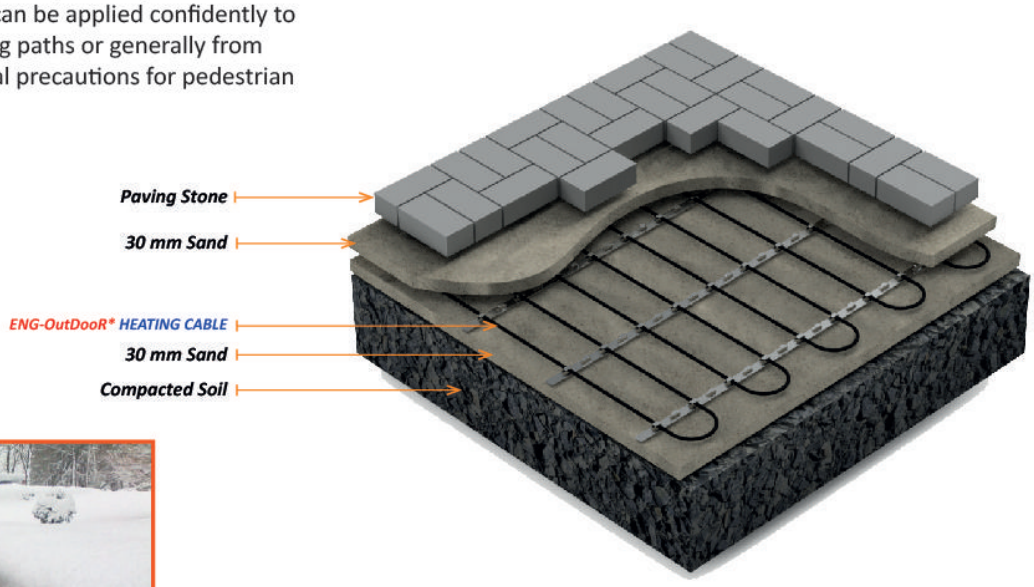
Heating cables can be applied safely to prevent snow and ice from roof surface, roof gutters, and downspouts, roads and garage ramps that are exposed to snow and freezing, under asphalt on bridges, and also to provide pedestrian safety on pavements, walking paths, pedestrian axis around residential and high density business districts. While heating cable applications for roof surfaces can be applied partially close to gutters and downspouts, at the same time, it also can be applied to whole roof surface as snow and ice prevention systems.

BEFORE SNOW & ICE MELTING SYSTEMS

AFTER SNOW & ICE MELTING SYSTEMS

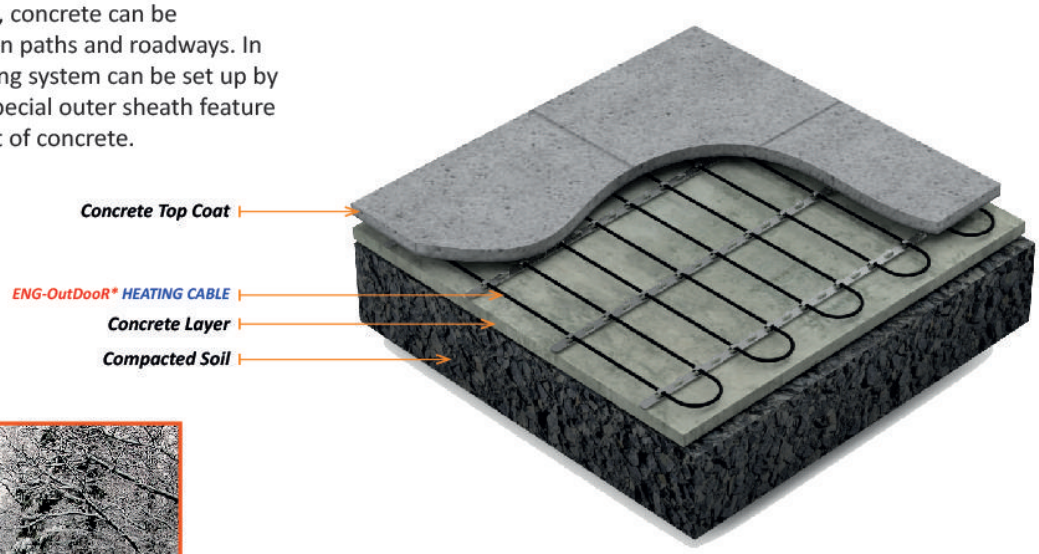
UNDER PAVER APPLICATION

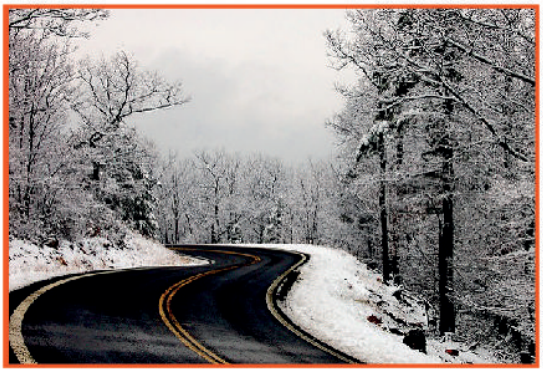
Outdoor heating cables have the capacity of being installed under different materials. Heating cables can be applied confidently to prevent snow and icing from walking paths or generally from pavements where needed additional precautions for pedestrian safety.



UNDER CONCRETE APPLICATION

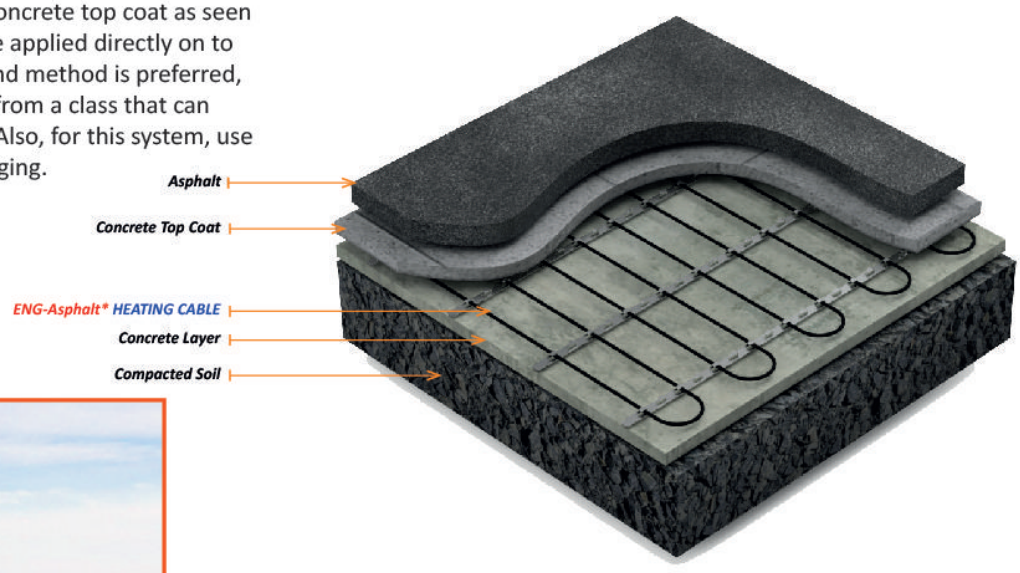
Apart from pavement applications, concrete can be preferred as top coat for pedestrian paths and roadways. In this situations, Snow and ice melting system can be set up by using heating cables which have special outer sheath feature that can show resistance to weight of concrete.





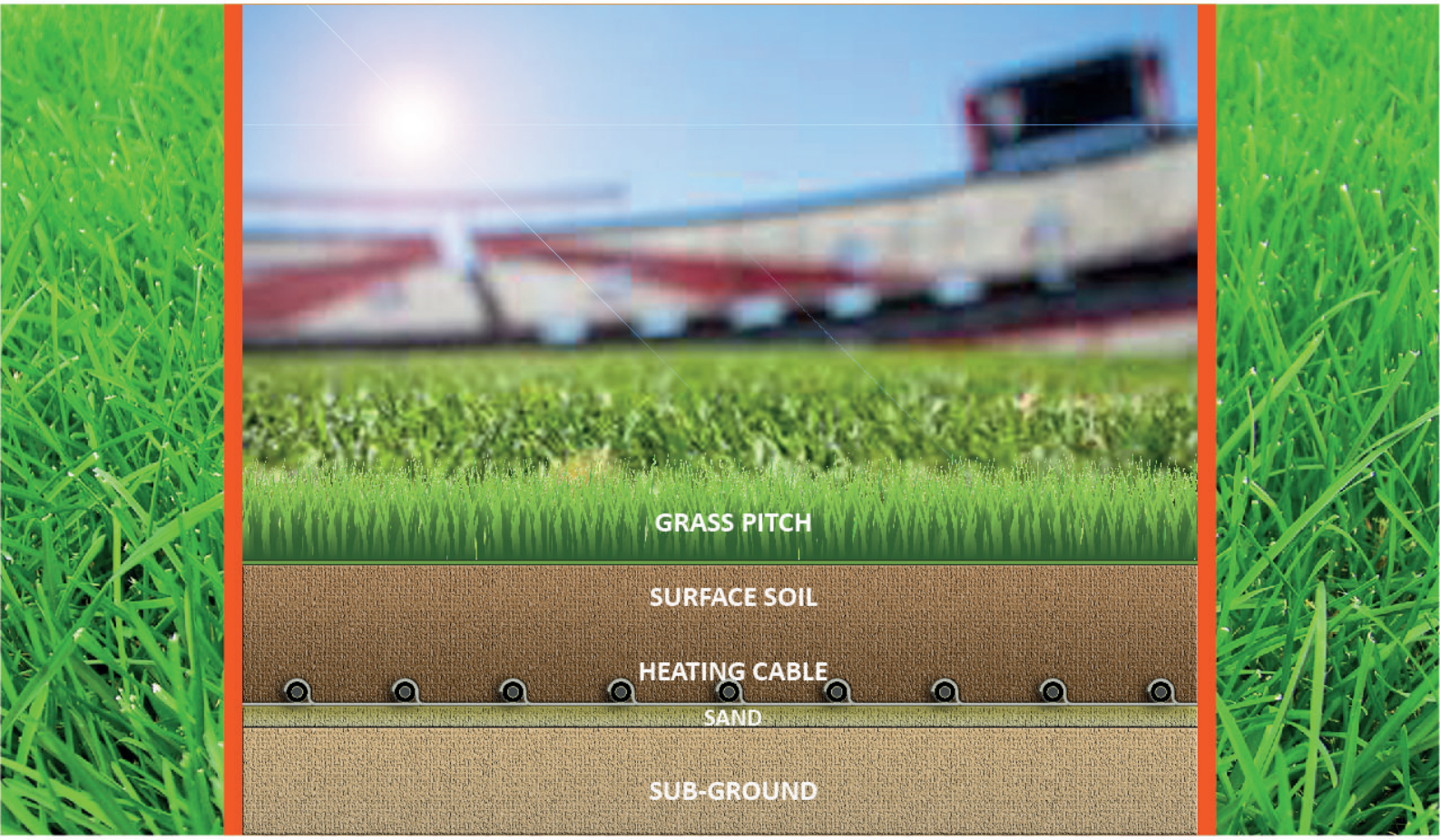
UNDER ASPHALT APPLICATION

Under asphalt applications have some important and different points to take in consideration compared to others. While asphalt can be applied on a concrete top coat as seen on picture at the right. It also can be applied directly on to the cable. However; when the second method is preferred, the heating cable has to be chosen from a class that can show resistance to heat of asphalt. Also, for this system, use of heavy asphalt roller can be damaging.



SPORTS FIELD HEATING; UNDERGRASS APPLICATIONS

In order to prevent artificial and natural grass pitches from bad weather condition effects in time, to protect from unfavorable situations like snow and frost hazard, underfloor heating applications become very significant. Also, underfloor heating provides many advantages especially for the maintenance of natural grass pitches.



PROTECTION AGAINST FREEZING AND ICING ON PIPES;

Heating cables can be used safely to prevent liquids from freezing in potable water pipes and for industrial applications of liquid transferring pipes.

PIPE HEATING AND HEAT MAINTAINING SYSTEMS;

In industrial facilities, in addition to deicing applications; heating cables can be used to maintain liquidity of materials in pipes or to heat up pipes if it is needed, during the liquid transfers.

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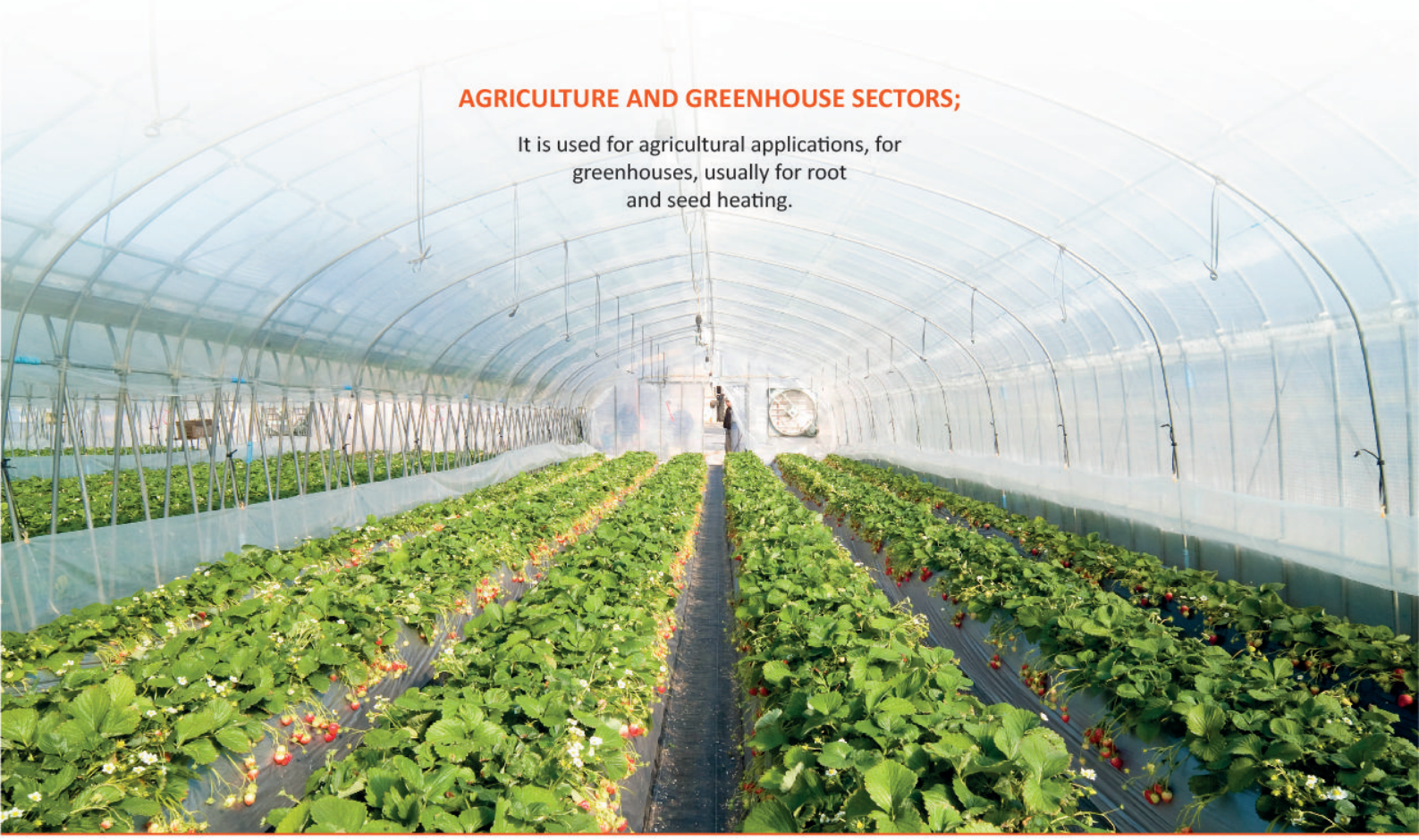
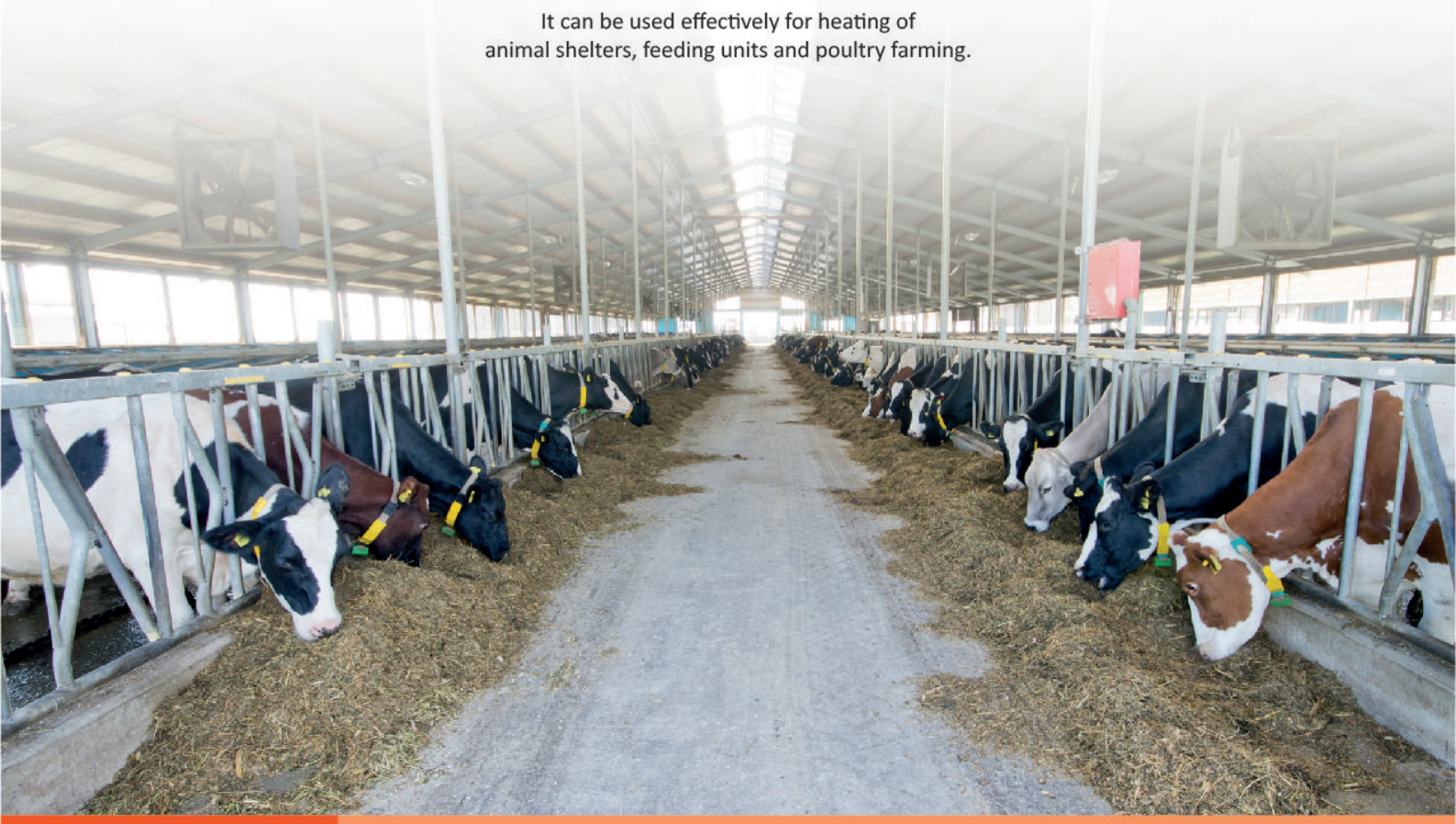
AGRICULTURE AND GREENHOUSE SECTORS;

It is used for agricultural applications, for greenhouses, usually for root and seed heating.



LIVESTOCK BREEDING AND ANIMAL SHELTERS;

It can be used effectively for heating of animal shelters, feeding units and poultry farming.

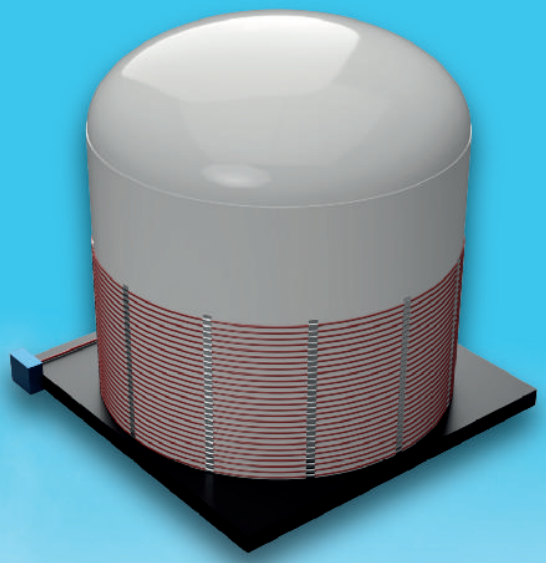


STORAGE TANK HEATING

Storage tanks in industrial facilities can be needed to heat up for several reasons.

For storage tanks, heating cable applications are the most appropriate and the easiest way to maintain material temperatures, to protect against freezing or to heat up stuff to a desired point.

Heating cable systems have many advantages compared to other heating systems. Easy installation, being maintenance-free and first installation costs are the most important features.



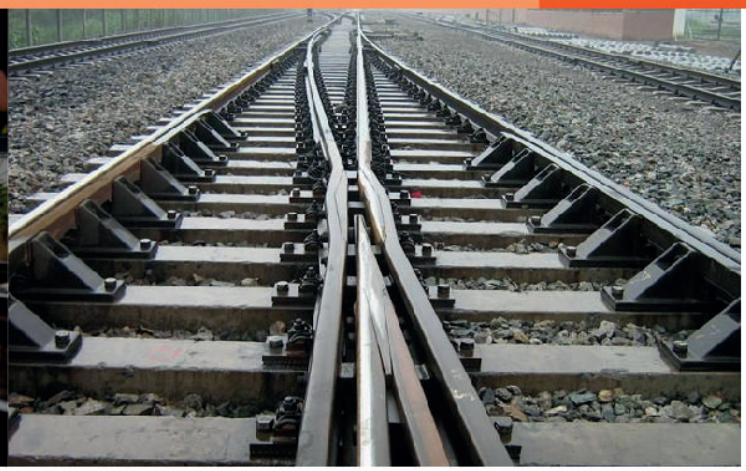
COLD STORAGE ROOMS

Heating cables are used for protecting floors of cold storage rooms from glaciation, to prevent doors of cold storage rooms from sticking due to freezing, and to protect air dampers of cold storage rooms from freezing.

INDUSTRIAL AND DOMESTIC COOLING APPLIANCES

Heating cables are used for providing liquidity and preventing freezing in Defrost systems, in doors of cabinet coolers and moving parts of cooling shelves (which can be seen in markets, butchers etc.), to prevent sticking due to freezing, to stop misting on doorglass of cabinet coolers after opening/closing of the door, and for Crankcase pumps to protect gas circulation from freezing.

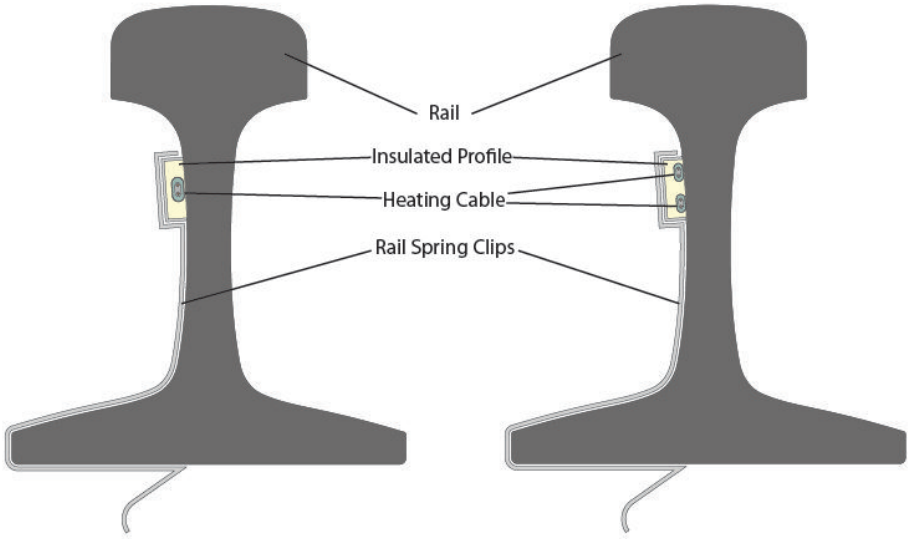
RAIL TRANSPORT SYSTEMS
SNOW MELTING AND DE-ICING



Under special conditions, heating cables can be used for heating up rails of train lines and tramlines and/or switchyards to prevent from snow and icing. These applications are usually designed specially to fit different requirements of train/tramlines. When the conditions of application area are taken in consideration, flexibility of the cable and the system gains great importance. Applied cables and the system can be designed according to line's requirements as desired 600-750V. Since, the system is mostly open to environmental effects, cable has to contact with the rail perfectly and it needs to be insulated from outside effects.

Snow melting - Deicing systems for rail transport systems are mainly consist of different equipments and accessories which are outlined below;

- Heating Cable,
- Snow-Ice or relative humidity sensor
- Control Board,
- Insulated Cable Channel
- Rail Connection Equipments.



Recommended Heating Cables for the systems

POWER RECOMMENDATION TABLE FOR HEATING CABLE APPLICATIONS

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INTERIOR APPLICATIONS

APPLICATION AREA	NORMAL POWER		SENSOR TYPE
Rooms	70-100 W/m²	ENG-FLP/CAL 10,20 ENG-FLP/CAL SC 10,20 KSP/C-20	Ambient & Floor
Bathrooms	120-150 W/m²		Floor
Corridors	80-120 W/m²		
Kitchen	80-120 W/m²		
Turkish Bath &Sauna	225-275 W/m²		
Winter House	150-175 W/m²		
Under Wooden Floors	70-100 W/m²		Ambient & Floor
Mosque, Churchs etc.	125-175 W/m²		Floor

OUTDOOR APPLICATIONS

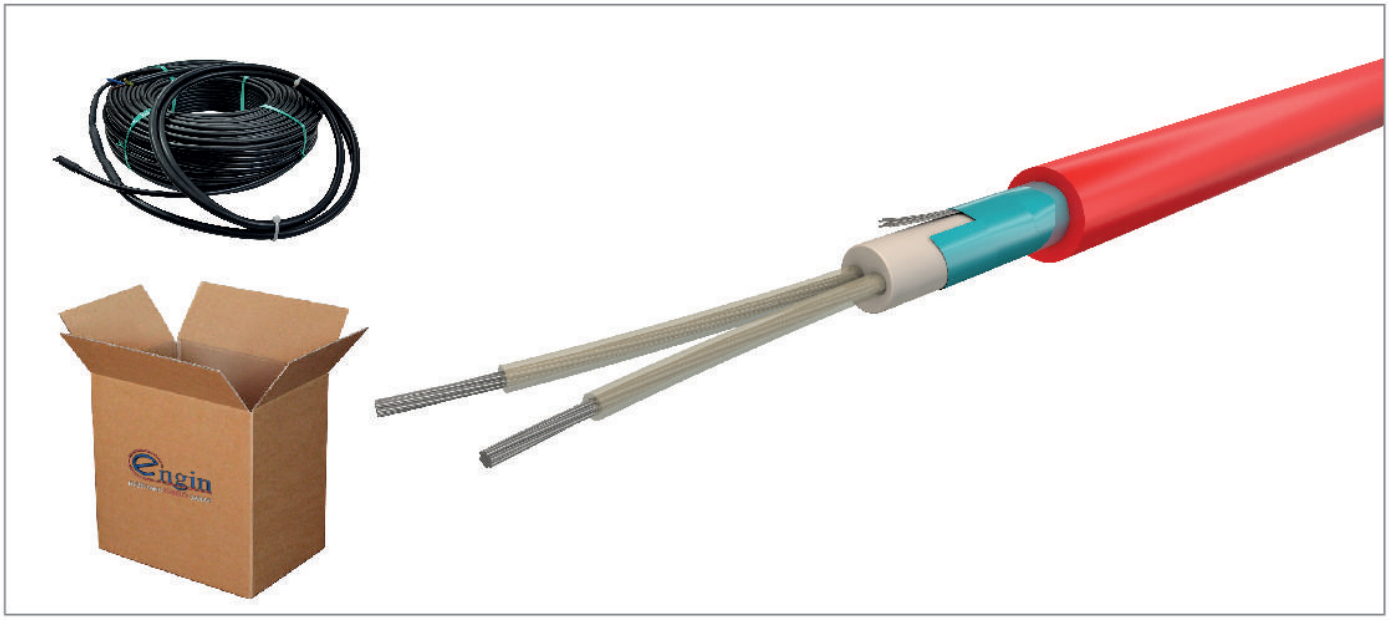
APPLICATION AREA	NORMAL POWER		SENSOR TYPE
Building Entrances	300-400 W/m²	ENG-FLP/CAL 20,30 ENG-FLP/CAL SC 20,30 KSP/C-30	Floor
Building walking paths	300-400 W/m²		Floor
Disabled access ramps	300-400 W/m²		Floor
Terraces & Balconies	300-400 W/m²		Floor
Stairs	300-400 W/m²		Floor
Pavements	300-400 W/m²		Floor
Garage Ramps	300-400 W/m²		Floor
Overpasses, Bridges	350-425 W/m²		Floor
Highways	350-425 W/m²	ENG-FLP/CAL 30 ENG-FLP/CAL SC 30 KSP/C-30	Floor
Helicopter Pads	350-425 W/m²		Floor
Loading Ramps	350-425 W/m²		Floor
Roof Surfaces	350-425 W/m²		Roof
Roof Gutter and Downspouts	350-425 W/m²		Roof

INDUSTRIAL APPLICATIONS

APPLICATION AREA	NORMAL POWER	MAX. POWER	SENSOR TYPE
Pipe Protection against icing	10-50 W/m²	-	Surface
Industrial Pipe Heating	10-125 W/m²	175 W/m²	Surface

APPLICATION AREA	NORMAL POWER		SENSOR TYPE
Tanks & Storehouses	10-125 W/m²		Surface
Animal Shelters	100-200 W/m²		Floor
Greenhouses	80-100 W/m²		Floor
Cold Storage Rooms	15-300 W/m²		Floor
Grass Pitches	80-100 W/m²		Floor

ENG-FLP/CAL 10 HEATING CABLE (Screened - Twin Conductor)



Applications

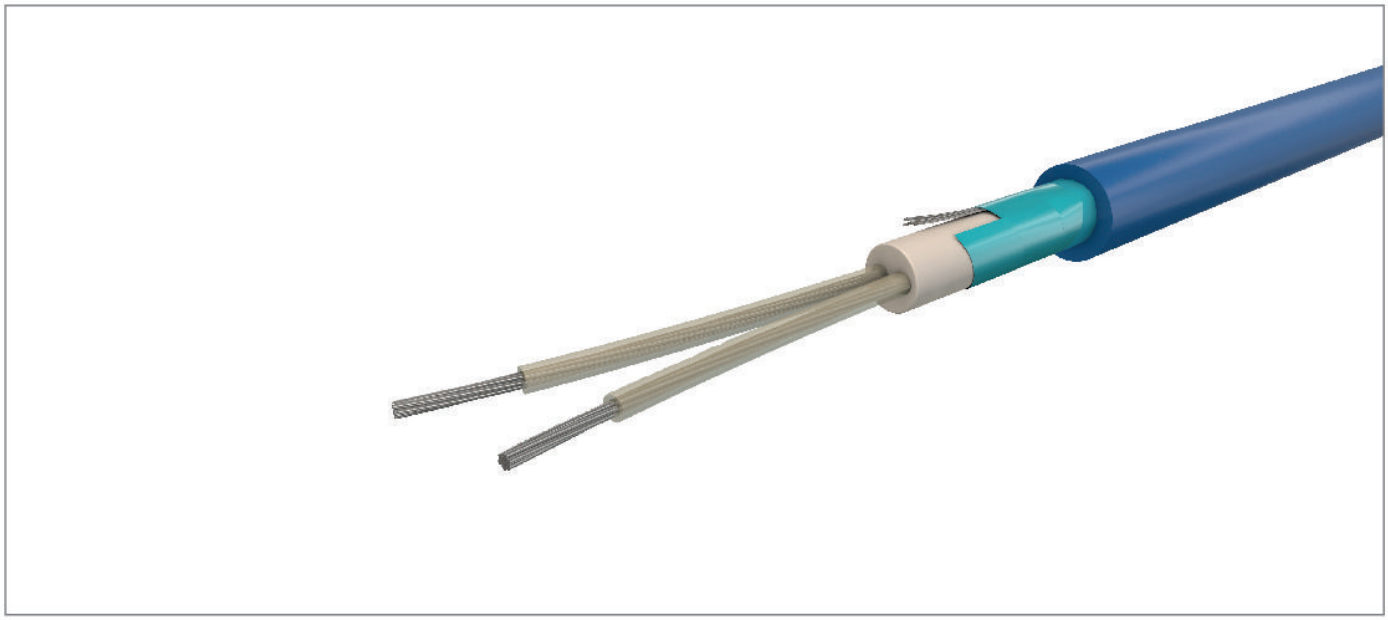
- Comfort heating for interiors
- Pipe heating applications
- Seed and root heating in greenhouses
- Floor heating for Cold Storage Rooms

Technical Specifications

Type:	Eng-Flp/Cal10
Voltage:	220 V
Power(Wattage):	10 W/M
Diameter:	7 mm
Cold Lead:	3 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220 V)
100.10.001	5 m	50 w
100.10.002	10 m	100 w
100.10.003	20 m	200 w
100.10.004	30 m	300 w
100.10.005	40 m	400 w
100.10.006	50 m	500 w
100.10.007	60 m	600 w
100.10.008	70 m	700 w
100.10.009	80 m	800 w
100.10.010	90 m	900 w
100.10.011	100 m	100 w
100.10.012	120 m	1200 w
100.10.013	140 m	1400 w
100.10.014	160 m	1600 w
100.10.015	180 m	1800 w
100.10.016	200 m	2000 w
100.10.017	210 m	2100 w
100.10.018	230 m	2300 w

ENG-FLP/CAL 20 HEATING CABLE (Screened - Twin Conductor)



Applications

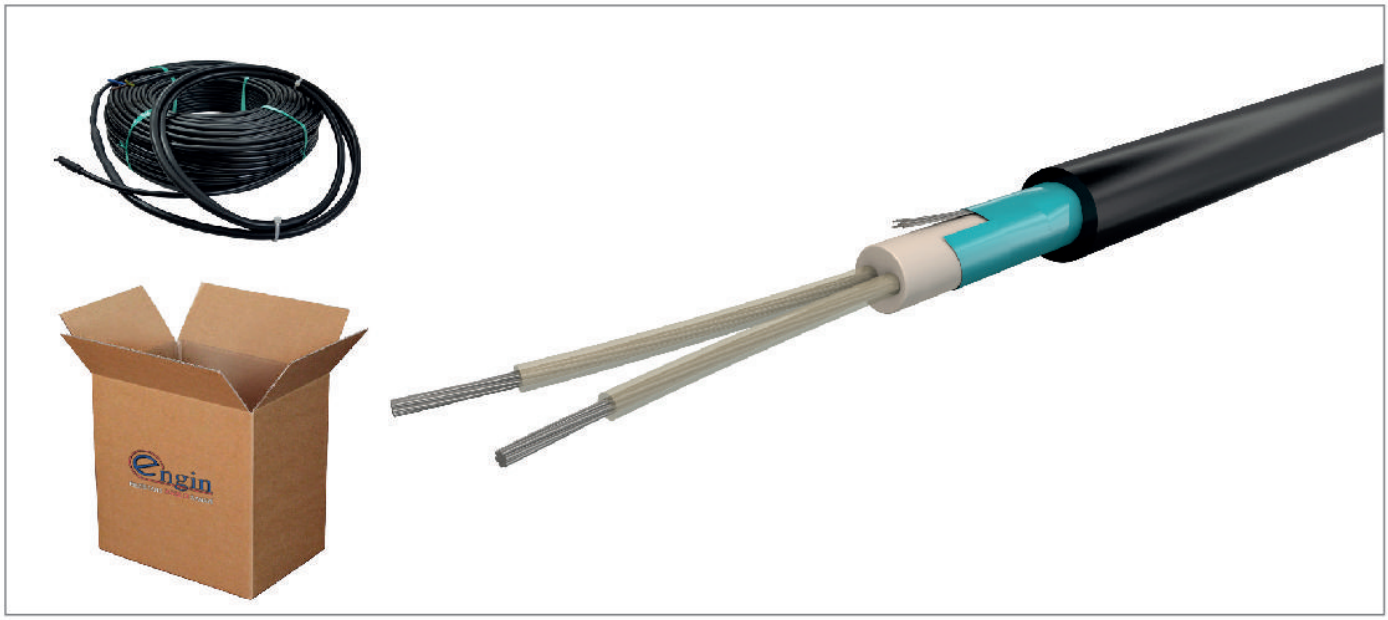
- Underfloor heating systems for interiors

Technical Specifications

Type:	Eng-Flp/Cal 20
Voltage:	220 V
Power(Wattage):	20 W/M
Diameter:	7 mm
Cold Lead:	3 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220 V)
100.20.001	5 m	100 w
100.20.002	10 m	200 w
100.20.003	20 m	400 w
100.20.004	30 m	600 w
100.20.005	40 m	800 w
100.20.006	50 m	1000 w
100.20.007	60 m	1200 w
100.20.008	70 m	1400 w
100.20.009	80 m	1600 w
100.20.010	90 m	1800 w
100.20.011	100 m	2000 w
100.20.012	120 m	2400 w
100.20.013	140 m	2800 w
100.20.014	160 m	3200 w

ENG-FLP/CAL 30 HEATING CABLE (Screened - Twin Conductor)



Applications

- Roof Surfaces, Roof Gutters, downspouts
- Garage Ramps
- Underpass, Overpass and Bridges
- Ice and snow melting

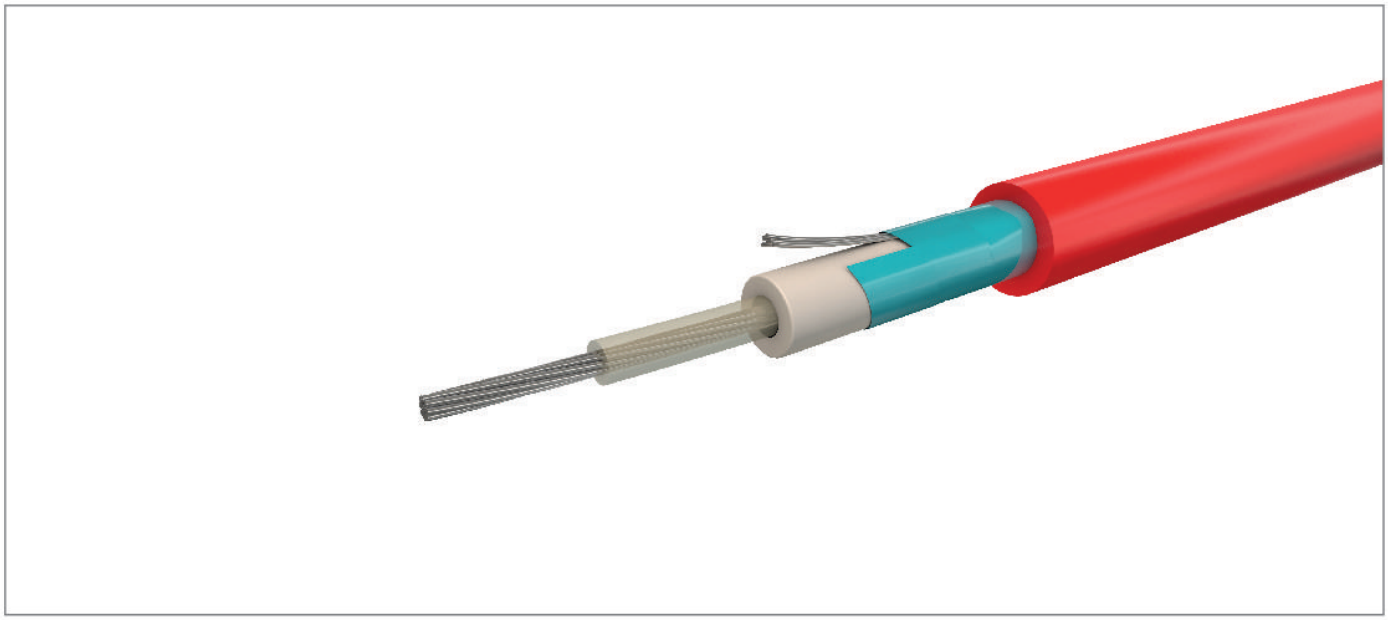
Technical Specifications

Type:	Eng-Flp/Cal 30
Voltage:	220 V – 380 V
Power(Wattage):	30 W/M
Diameter:	7 mm
Cold Lead:	3 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220V)
100.30.001	5 m	150 w
100.30.002	10 m	300 w
100.30.003	15 m	450 w
100.30.004	20 m	600 w
100.30.005	27 m	810 w
100.30.006	34 m	1020 w
100.30.007	40 m	1200 w
100.30.008	45 m	1350 w
100.30.009	50 m	1500 w
100.30.010	55 m	1650 w
100.30.011	63 m	1890 w
100.30.012	70 m	2100 w
100.30.013	78 m	2340 w
100.30.014	85 m	2550 w
100.30.015	95 m	2850 w
100.30.016	110 m	3300 w
100.30.017	150 m	4500 w

PRODUCT CODE	LENGTH	POWER (380V)
100.30.018	18 m	540 w
100.30.019	36 m	1080 w
100.30.020	72 m	2160 w
100.30.021	110 m	3300 w
100.30.022	147 m	4410 w
100.30.023	173 m	5190 w
100.30.024	192 m	5760 w
100.30.025	205 m	6150 w

ENG-FLP/CAL-SC 10 HEATING CABLE (Screened - Single Conductor)



Applications

- Heating systems for interiors, Pipe heating, seed and root heating in greenhouses, floor heating of cold storage rooms

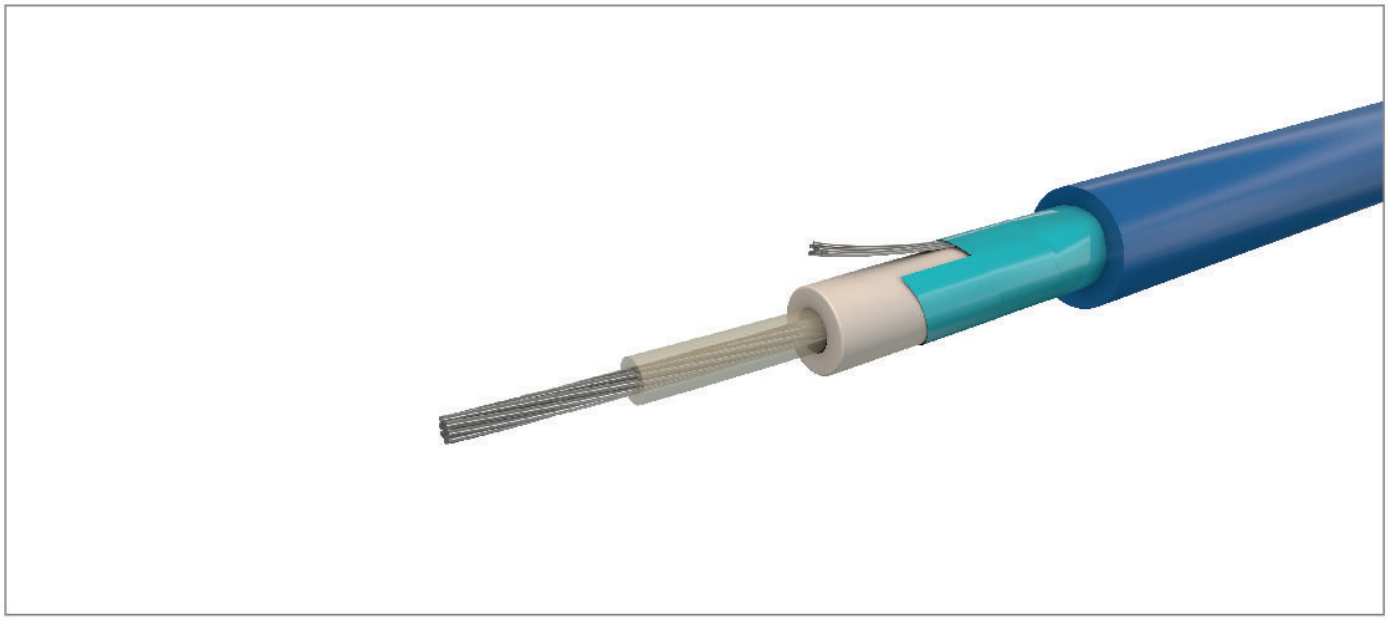
Technical Specifications

Type:	Eng-Flp/Cal-SC 10
Voltage:	220 V – 380 V
Power(Wattage):	10 W/M
Diameter:	5,80 mm
Cold Lead:	2 x 5 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220V)
110.10.001	10 m	100 w
110.10.002	15 m	150 w
110.10.003	20 m	200 w
110.10.004	25 m	250 w
110.10.005	30 m	300 w
110.10.006	40 m	400 w
110.10.007	52 m	520 w
110.10.008	60 m	600 w
110.10.009	75 m	750 w
110.10.010	90 m	900 w
110.10.011	110 m	1100 w
110.10.012	130 m	1300 w
110.10.013	160 m	1600 w
110.10.014	190 m	1900 w
110.10.015	230 m	2300 w

PRODUCT CODE	LENGTH	POWER (380V)
110.10.016	55 m	550 w
110.10.017	70 m	700 w
110.10.018	92 m	920 w
110.10.019	125 m	1250 w
110.10.020	160 m	1600 w
110.10.021	195 m	1950 w
110.10.022	230 m	2300 w

ENG-FLP/CAL-SC 20 HEATING CABLE (Screened - Single Conductor)



Applications

- Building entrances, walking paths, pavements, disabled access ramps and stairs, ice and snow melting on roofs and terraces.

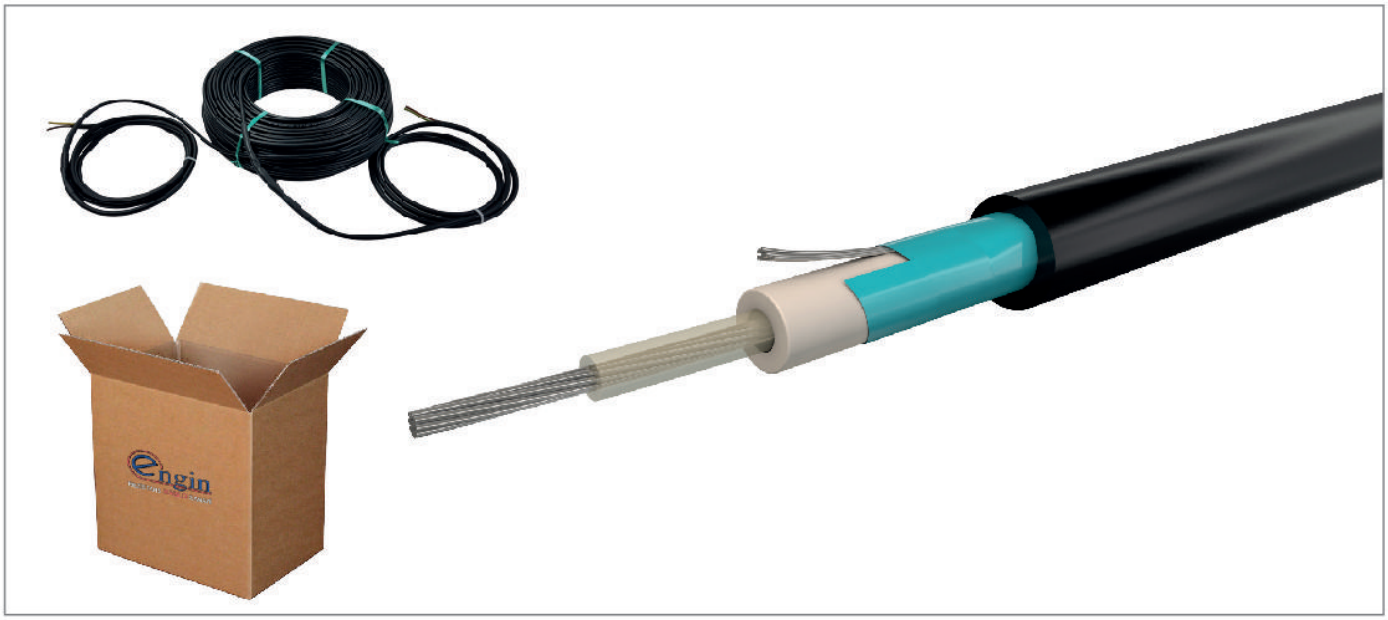
Technical Specifications

Type:	Eng-Flp/Cal-SC 20
Voltage:	220 V – 380 V
Power(Wattage):	20 W/M
Diameter:	5,80 mm
Cold Lead:	2 x 5 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220V)
110.20.001	10 m	200 w
110.20.002	15 m	300 w
110.20.003	20 m	400 w
110.20.004	25 m	500 w
110.20.005	30 m	600 w
110.20.006	40 m	800 w
110.20.007	52 m	1040 w
110.20.008	60 m	1200 w
110.20.009	75 m	1500 w
110.20.010	90 m	1800 w
110.20.011	110 m	2200 w
110.20.012	130 m	2600 w
110.20.013	160 m	3200 w
110.20.014	190 m	3800 w
110.20.015	230 m	4600 w

PRODUCT CODE	LENGTH	POWER (380V)
110.20.016	55 m	1100 w
110.20.017	70 m	1400 w
110.20.018	92 m	1840 w
110.20.019	125 m	2500 w
110.20.020	160 m	3200 w
110.20.021	195 m	3900 w
110.20.022	230 m	4600 w

ENG-FLP/CAL-SC 30 HEATING CABLE (Screened - Single Conductor)



Applications

- Roof Surfaces, Roof Gutters, downspouts, Garage Ramps, Underpass, Overpass and Bridges, Ice and snow melting

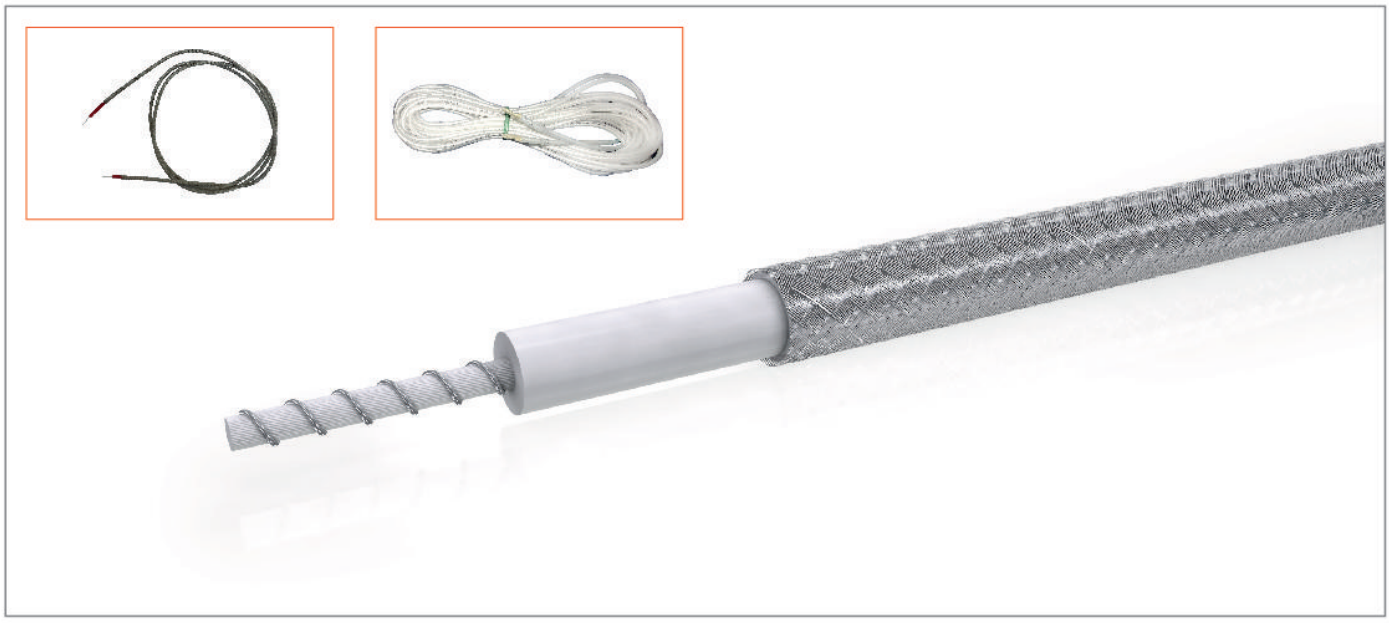
Technical Specifications

Type:	Eng-Flp/Cal-SC 30
Voltage:	220 V – 380 V
Power(Wattage):	30 W/M
Diameter:	5,80 mm
Cold Lead:	2 x 3 m
Conductor Insulation:	FEP (205˚C)
Cable Insulation:	PVC or XLPO
Max. Insulation Temperature:	90˚C
Max. Working Temperature:	65˚C

PRODUCT CODE	LENGTH	POWER (220V)
110.30.001	5 m	150 w
110.30.002	8 m	240 w
110.30.003	12 m	360 w
110.30.004	16 m	480 w
110.30.005	24 m	720 w
110.30.006	30 m	900 w
110.30.007	40 m	1200 w
110.30.008	50 m	1500 w
110.30.009	60 m	1800 w
110.30.010	75 m	2250 w
110.30.011	90 m	2700 w
110.30.012	110 m	3300 w
110.30.013	125 m	3750 w
110.30.014	140 m	4200 w
110.30.015	160 m	4800 w

PRODUCT CODE	LENGTH	POWER (380V)
110.30.016	18 m	540 w
110.30.017	35 m	1050 w
110.30.018	72 m	2160 w
110.30.019	110 m	3300 w
110.30.020	140 m	4200 w
110.30.021	175 m	5250 w
110.30.022	210 m	6300 w

ENG-TDH - PVC INSULATED SINGLE CORE HEATING CABLE YP-YP/C-YP/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

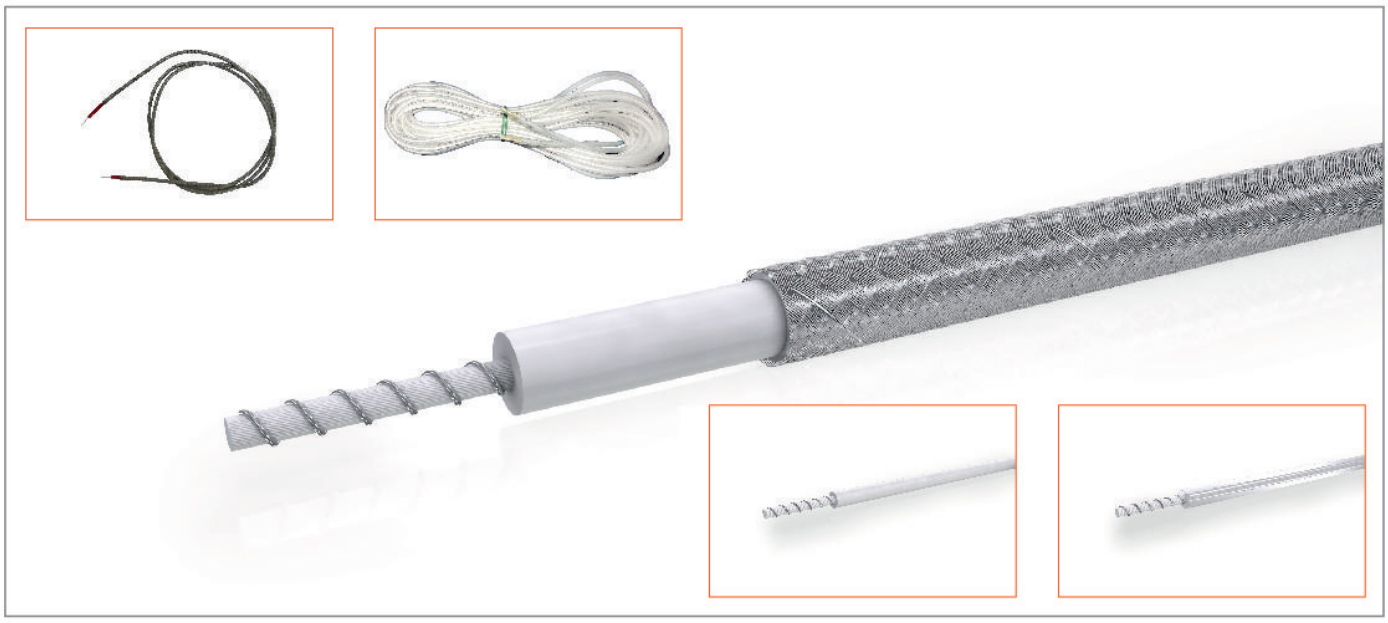
PRODUCT CODE :501
YP: PVC Insulated Heating Cables

PRODUCT CODE :502
YP/C: Tinned Copper Wire Braided for mechanic protection and earthing

PRODUCT CODE :503
YP/S :Steel Wire Braided for mechanic protection and earthing

TECHNICAL DETAILS	YP	YP/C-YP/S
Glassfibre Diameter	0,8 mm -1,2 mm	
Heating Wire	Nickel-Chrome or Nickel-Copper	
Outer Diameter	2,1 mm-3,1 mm	2,1 mm-3,1 mm
Max. Ohm	5000 ohm/m	
Max. Voltage	500 v	
Max. Power(Wattage)	15 w/m	
Max. Working Temp.	-30 °C / +105°C	
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm	

ENG-TDH - SILICONE INSULATED SINGLE CORE HEATING CABLE YST-YSB-YS/C-YS/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

TECHNICAL DETAILS	YST-YSB	YS/C-YS/S
Glassfibre Diameter	0,8 mm -1,2 mm	
Heating Wire	Nickel-Chrome or Nickel-Copper	
Outer Dia.	2,4 mm-3,6 mm	2,8mm-4,2 mm
Max. Ohm	5000 ohm/m	
Max. Voltage	500 v	
Max. Power	30 w/m	
Max.Working Temp.	-60 °C / +200°C	
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm	

Characteristic

PRODUCT CODE :504
YST: Silicone insulated transparent single core heating cable

PRODUCT CODE :505
YSB: Silicone insulated white single core heating cable

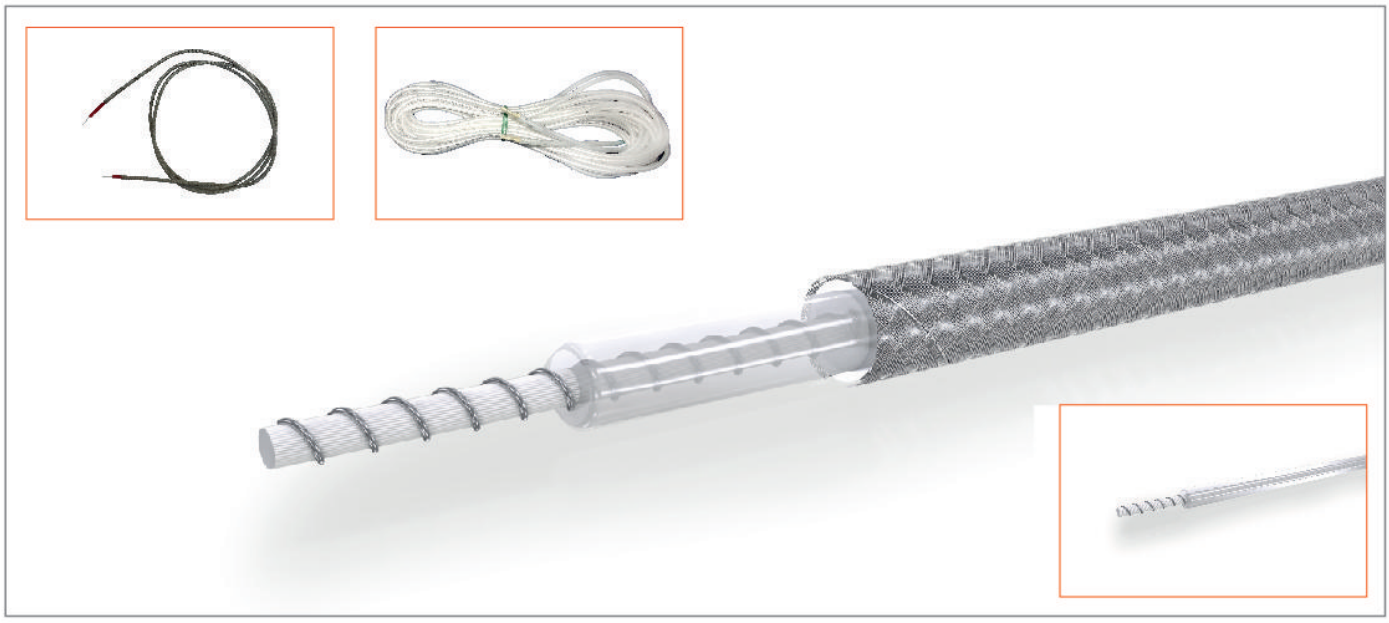
PRODUCT CODE :506
YS/C: Silicone insulated single core, copper wire braided for earthing

PRODUCT CODE :507
YS/S: Silicone insulated single core, steel wire braided for earthing

YS/GB: Silicone insulated, Glassfibre Braided, single core heating cable

YS/IG: Glassfibre braided, Silicone insulated, Single core heating cable

ENG-TDH - FLUOROPOLYMER INSULATED SINGLE CORE HEATING CABLE YF-YF/C-YF/S



Applications

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Characteristic

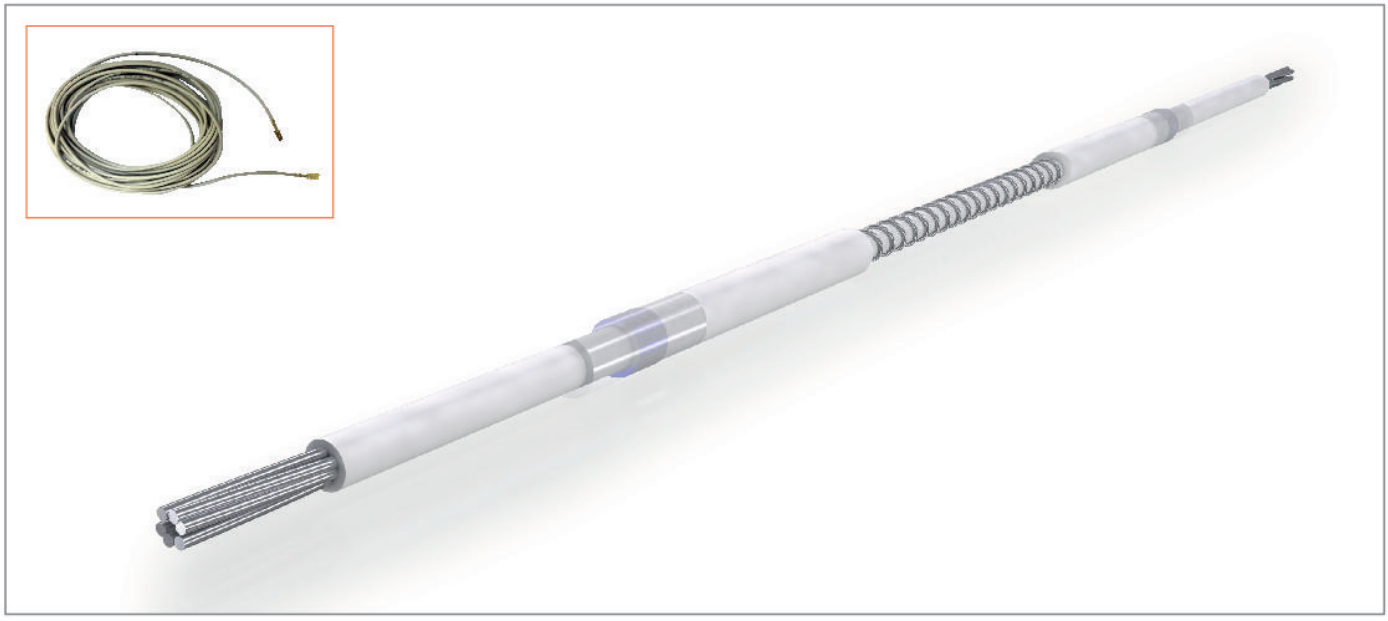
PRODUCT CODE:507/1
YF: Fluoropolymer insulated heating cable

PRODUCT CODE :508
YF/C: Fluoropolymer insulated, Tinned Copper Wire Braided for mechanic protection and earthing

PRODUCT CODE :509
YF/S : Fluoropolymer insulated,Steel Wire Braided for mechanic protection and earthing

TECHNICAL DETAILS	YF	YF/C-YF/S
Glassfibre Diameter	0,8 mm -1,2 mm	
Heating Wire	Nickel-Chrome or Nickel-Copper	
Outer Diameter	1,7 mm-2,2 mm	2,00mm-2,5 mm
Max. Ohm	5000 ohm/m	
Max. Voltage	600 v	
Max. Power	30 w/m	
Max. Working Temp.	-70 °C / +200°C	
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm	

ENG-HTC - PVC INSULATED HEATING CABLE HP



Applications

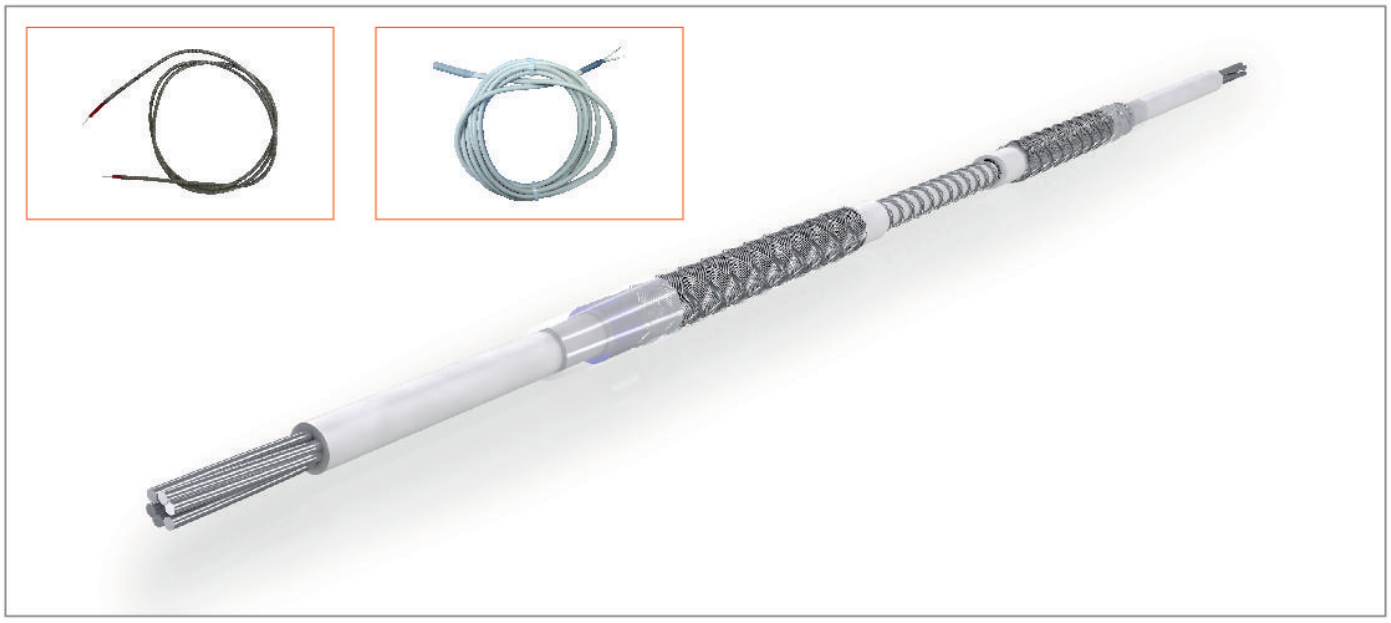
Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

PRODUCT CODE :510
HP: PVC insulated heating cable with extension

TECHNICAL DETAILS	HP
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	2,4 mm-3,00 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	15 w/m
Max. Working Temp.	-30 °C / +105°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - PVC INSULATED HEATING CABLE HP/C-HP/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

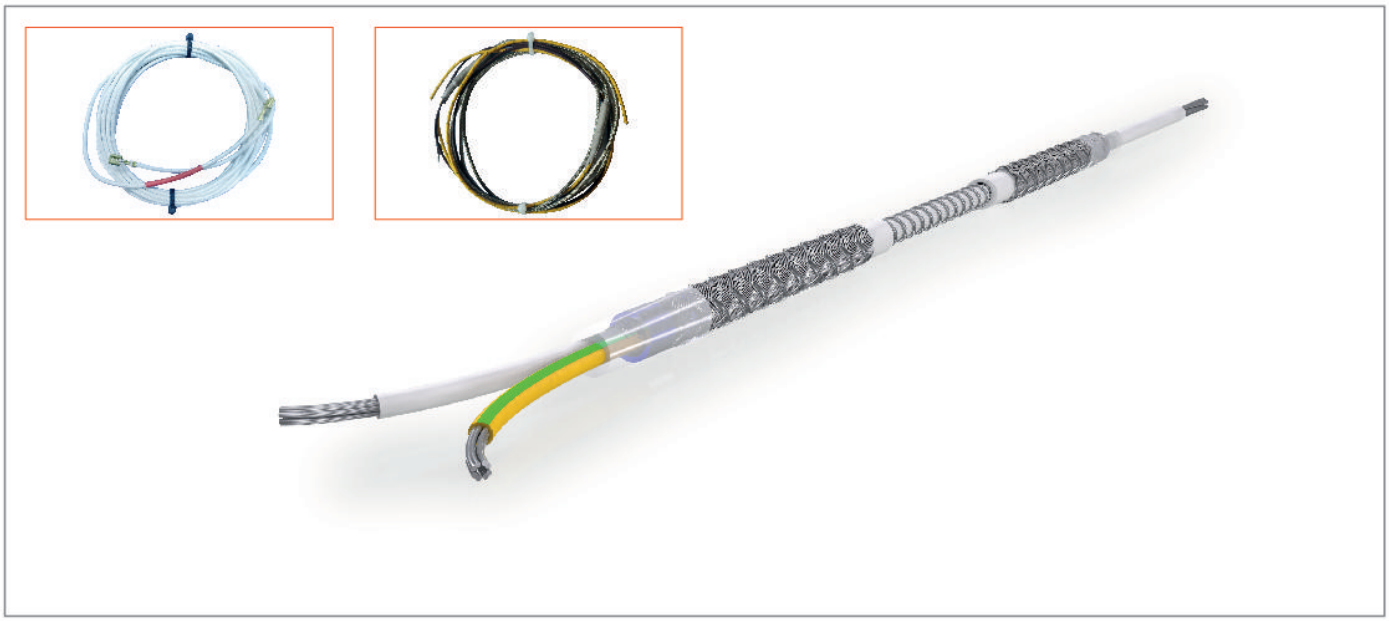
Characteristic

PRODUCT CODE :511
HP/C: PVC insulated, Tinned copper wire braided heating cable with extension

PRODUCT CODE :512
HP/S: PVC insulated, Steel wire braided heating cable with extension

TECHNICAL DETAILS	HP/C- HP/S
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,00 mm-3,80mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	15 w/m
Max. Working Temp.	-30 °C / +105°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - PVC INSULATED HEATING CABLE HPT/C-HPT/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

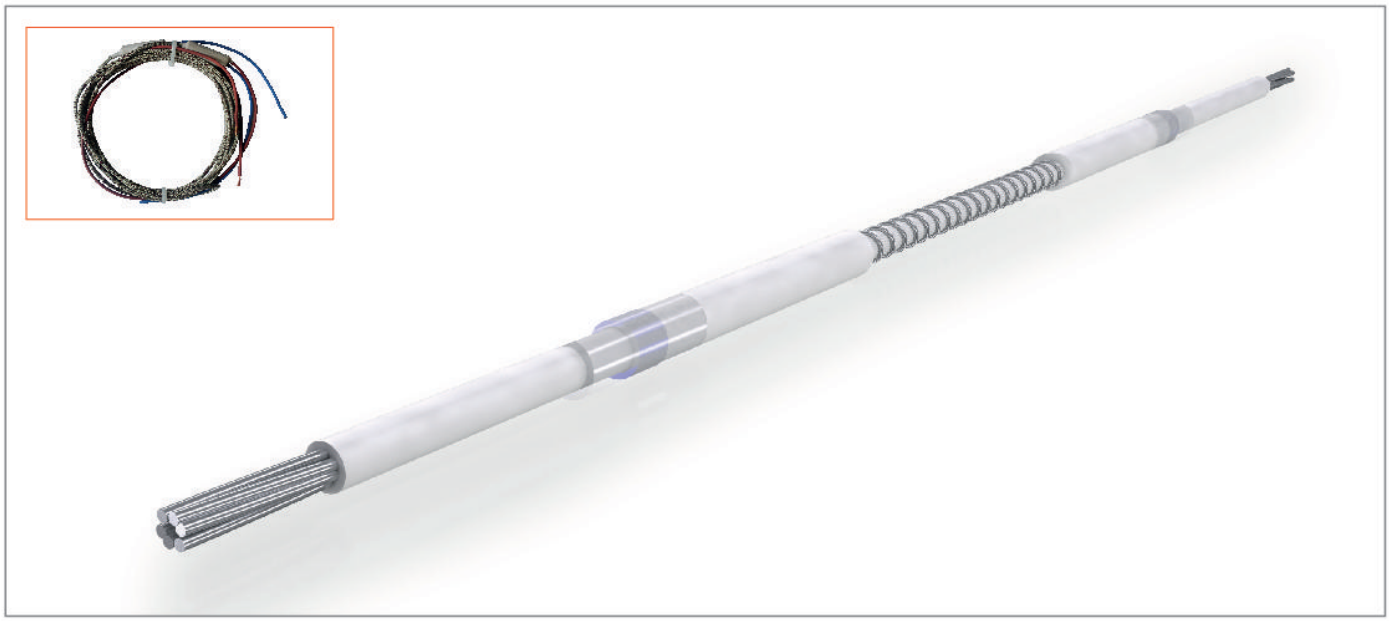
Characteristic

PRODUCT CODE :513
HPT/C: PVC insulated, Tinned copper wire braided and with earthing wire

PRODUCT CODE :514
HPT/S: PVC insulated, Steel wire braided and with earthing wire

TECHNICAL DETAILS	HPT/C- HPT/S
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,00 mm-3,08 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	15 w/m
Max. Working Temp.	-30 °C / +105°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - SILICONE INSULATED HEATING CABLE HS



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

PRODUCT CODE :515
HS: Silicone insulated heating cable

TECHNICAL DETAILS	HS
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	2,2 mm-3,4 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	30 w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - SILICONE INSULATED HEATING CABLE HS/C-HS/S

Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

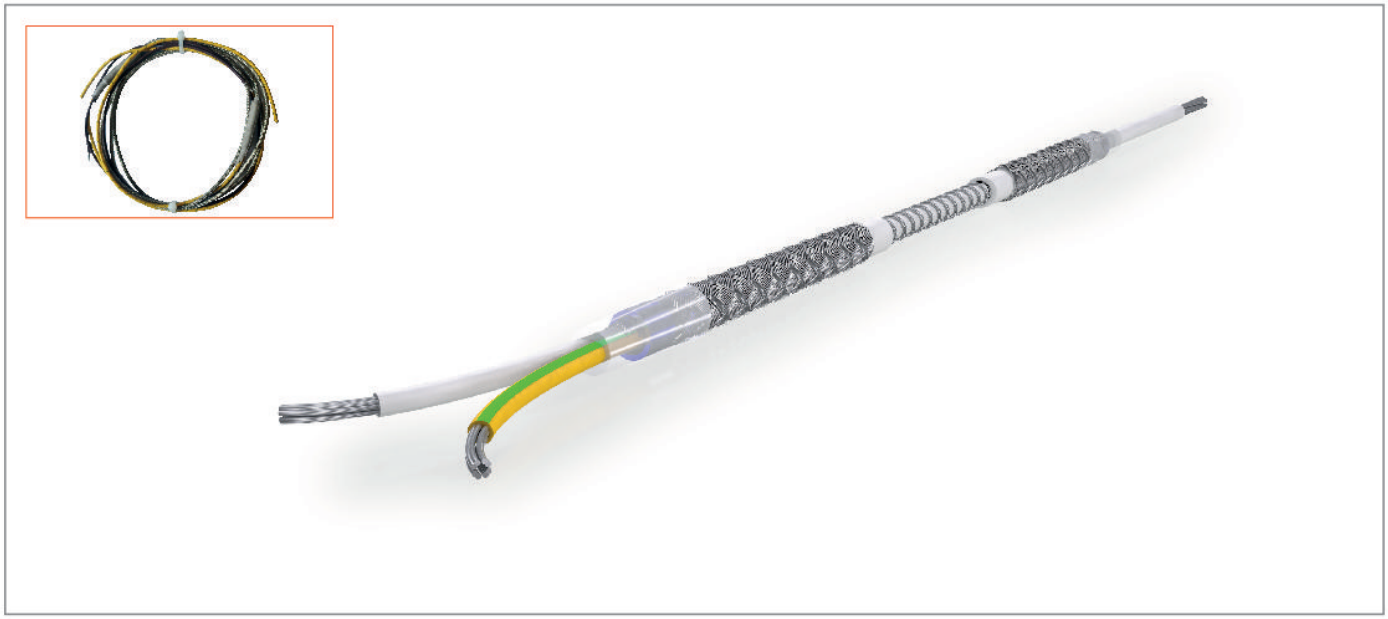
Characteristic

PRODUCT CODE :516
HS/C: Silicone insulated, tinned copper wire braided heating cable

PRODUCT CODE :517
HS/S: Silicone insulated, steel wire braided heating cable

TECHNICAL DETAILS	HS/C – HS/S
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,8 mm-3,8 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	30 w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - SILICONE INSULATED HEATING CABLES HST/C-HST/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

PRODUCT CODE :518
HST/C: Silicone insulated, tinned copper wire braided heating cable with earthing wire

PRODUCT CODE :519
HST/S: Silicone insulated, steel wire braided heating cable with earthing wire

TECHNICAL DETAILS	HST/C --- HST/S
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,00 mm-3,8 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	30 w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - SILICONE INSULATED HEATING CABLE HSM

Applications

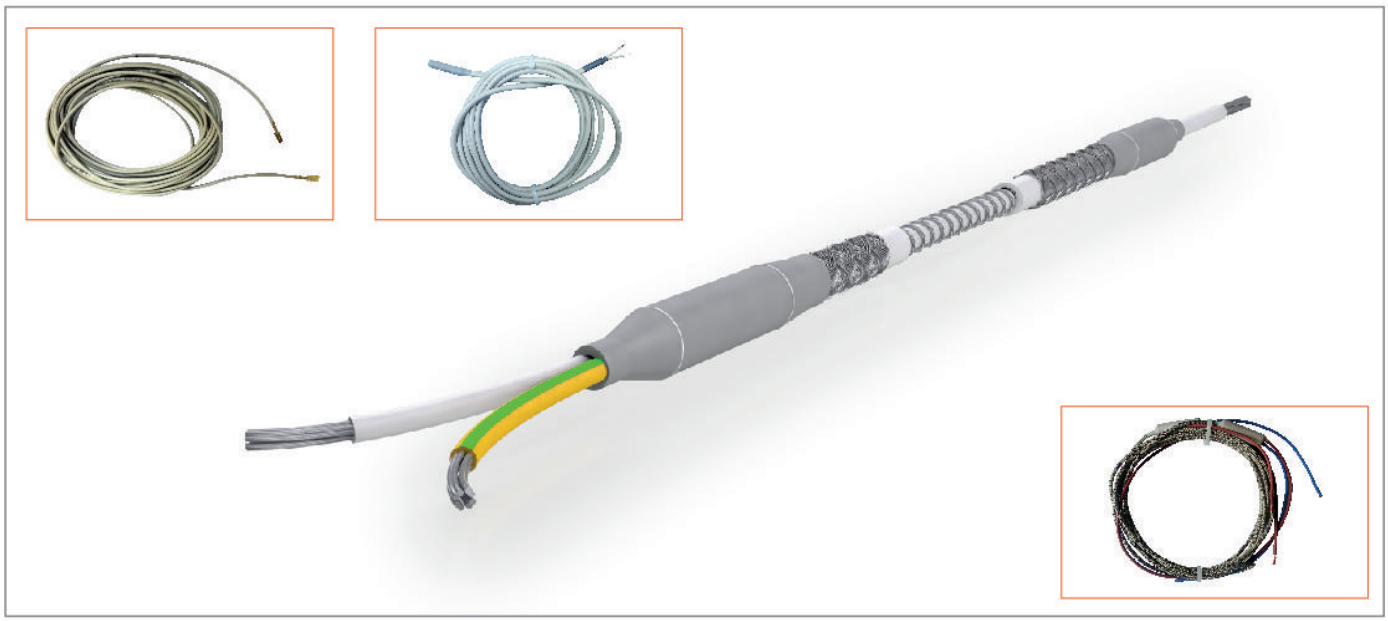
Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

PRODUCT CODE :520
HSM:Silicone insulated silicone molded heating cable

TECHNICAL DETAILS	HSM
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	2,2 mm-3,4 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	30 w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - SILICONE INSULATED HEATING CABLE HSM/CT-HSM/ST



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

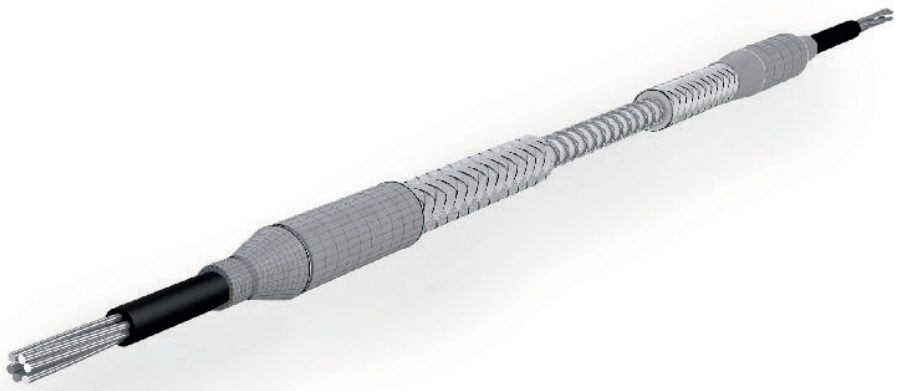
Characteristic

PRODUCT CODE :523
HSM/CT: Silicone insulated, silicone molded, Tinned copper wire braided heating cable with earthing wire

PRODUCT CODE :524
HSM/ST: Silicone insulated, silicone molded, steel wire braided heating cable with earthing wire

TECHNICAL DETAILS	HSM/CT- HSM/ST
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,1 mm-3,8 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	30 w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm Length Tolerance:±%1

ENG-HTC - GLASSFIBRE INSULATED HEATING CABLE HFG



Applications

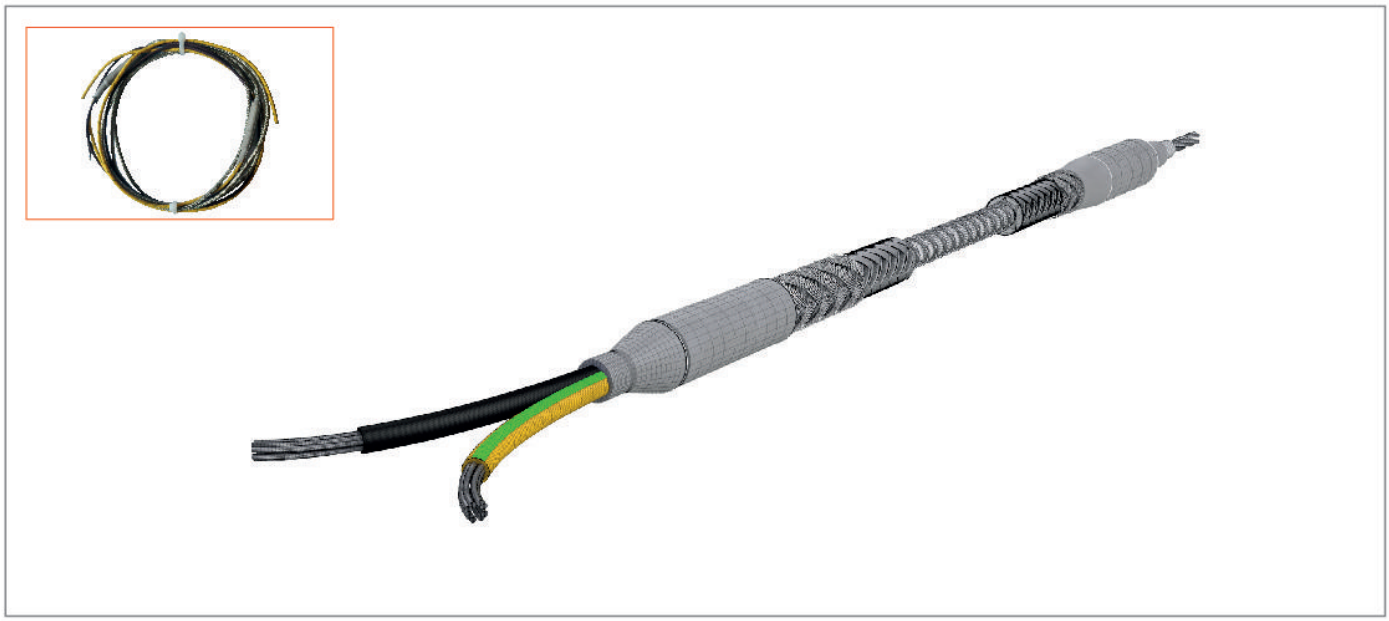
Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

Characteristic

PRODUCT CODE :525
HFG: Glassfibre insulated heating cable

TECHNICAL DETAILS	HFG
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	4,2 mm-4,6 mm
Max. Ohm	5000 ohm/m
Max. Voltage	240 v
Max. Power	120 w/m
Max. Working Temp.	+400 °C
Tolerance	Resistance: ± %10 Diameter: +0,3 mm / -0,3 mm Length Tolerance:±%1

ENG-HTC - GLASSFIBRE INSULATED HEATING CABLE HFG/C –HFG/S



Applications

Main applications of these heating cables are for domestic and industrial cooling machines to prevent from ice at certain points. This situtation provides us more controlled, efficient and reliable working systems. It also extends the economic life of the systems and machines.

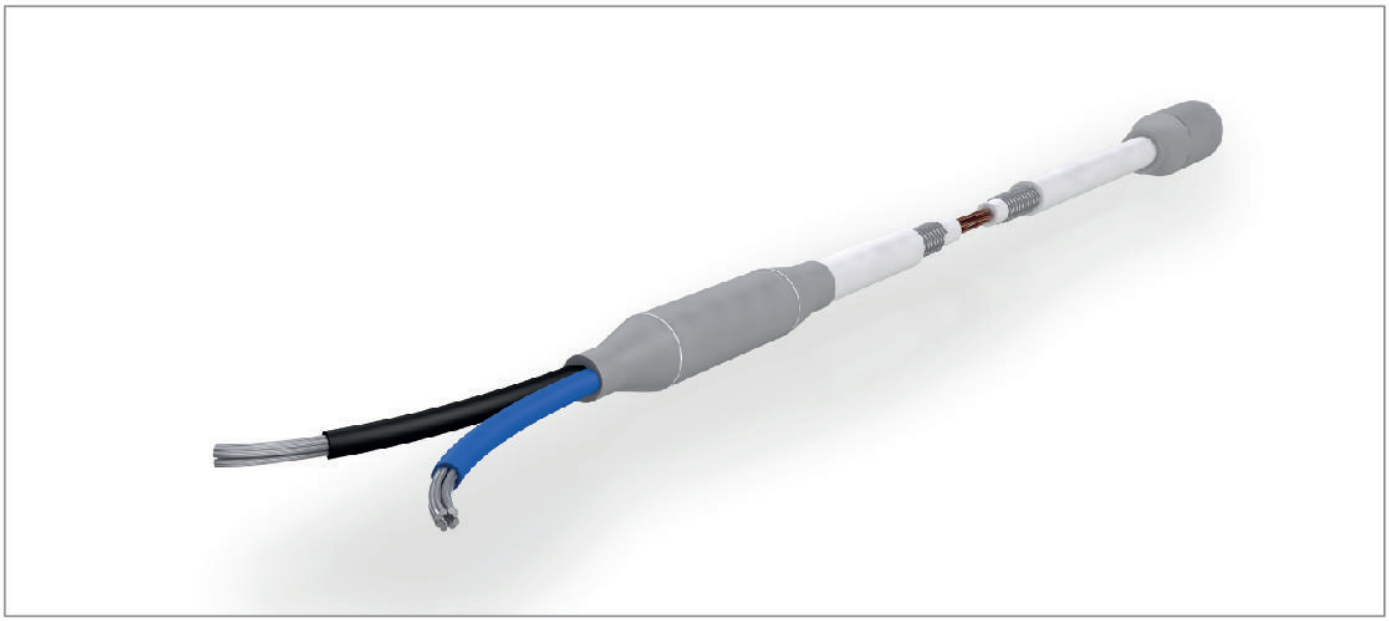
Characteristic

PRODUCT CODE :526
HFG/C: Glassfibre insulated tinned copper wire braided heating cable with earthing wire

PRODUCT CODE :527
HFG/S: Glassfibre insulated steel wire braided heating cable with earthing wire

TECHNICAL DETAILS	HFG/C- HFG/S
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	4,8 mm-5,30 mm
Max. Ohm	5000 ohm/m
Max. Voltage	240 v
Max. Power	120 w/m
Max. Working Temp.	400 °C
Tolerance	Resistance: ± %10 Diameter: +0,3 mm / -0,3 mm Length Tolerance:±%1

ENG-DHC - SILICONE INSULATED DRAIN HEATING CABLE DTS



Applications

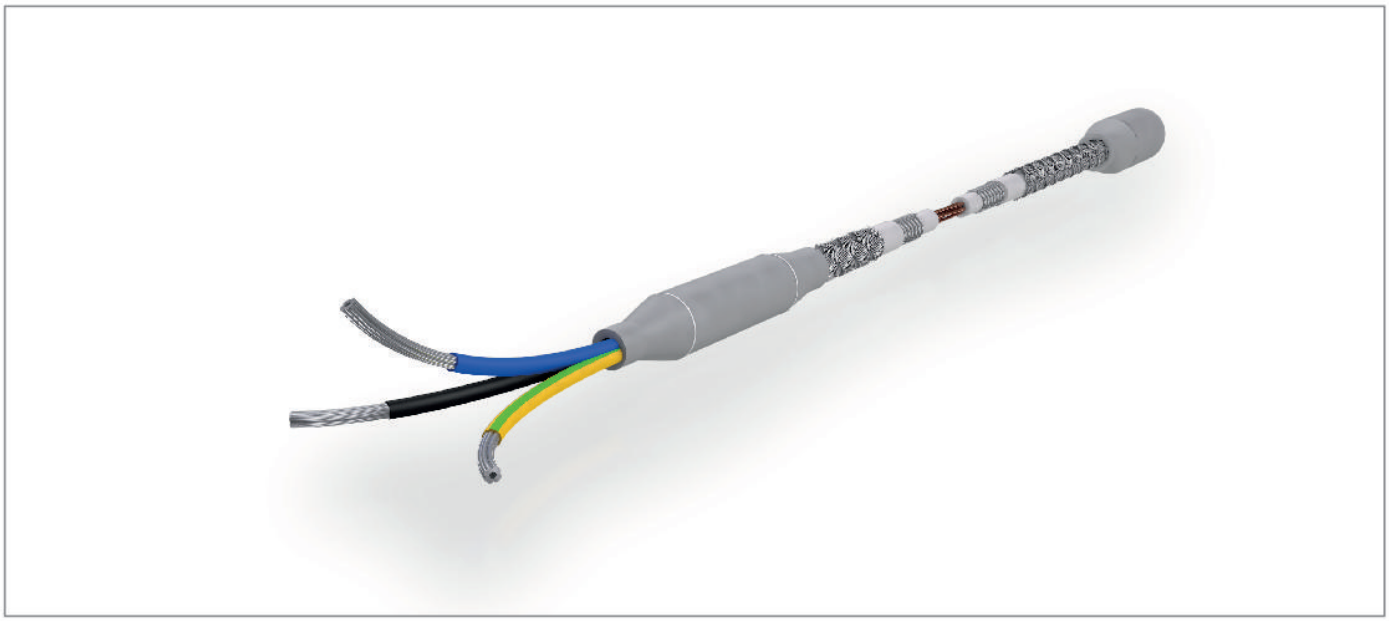
These heating cables are usually used to prevent ice formation of water inside of pipes of cold room cooling equipments. As a result, they contribute to systems to function for a long period of time efficiently.

Characteristic

PRODUCT CODE :528
DST: Silicone insulated single core drain heating cable

TECHNICAL DETAILS	DTS
Conductor Diameter	0,75 mm² -1,00 mm²-1,5 mm² Optional
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5,3 mm-5,8 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	50 w/m
Max. Working Temp.	-60 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm

ENG-DHC - SILICONE INSULATED DRAIN HEATING CABLE DST/C-DST/S



Applications

These heating cables are usually used to prevent ice formation of water inside pipes of cold room cooling equipments. As a result, they contribute to systems to function for a long period of time efficiently.

Characteristic

PRODUCT CODE :529
DST/C:Silicone insulated single core copper wire braided drain heating cable with earthing wire

PRODUCT CODE :530
DST/S:Silicone insulated single core steel wire braided drain heating cable with earthing wire

TECHNICAL DETAILS	DST/C-DST/S
Conductor Diameter	0,75 mm² -1,00 mm²-1,5 mm² Optional
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5,8 mm-6,3 mm
Max. Ohm	5000 ohm/m
Max. Voltage	500 v
Max. Power	50 w/m
Max. Working Temp.	-60 °C / +200°C
Tolerance	Resistance: ± %10 Diameter: +0,2 mm / -0,2 mm

ENG-DHC - SILICONE INSULATED DRAIN HEATING CABLE DS2

Applications

These heating cables are usually used to prevent ice formation of water inside pipes of cold room cooling equipments. As a result, they contribute to systems to function for a long period of time efficiently.

Characteristic

PRODUCT CODE :531
DS2: Silicone insulated twin core drain heating cable

TECHNICAL DETAILS	DST/C-DST/S
Conductor Diameter	0,50 mm²
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5,00 mm-7,00 mm
Max. Ohm	5000 ohm/m
Max. Voltage	220-230 v
Max. Power	40w/m - 50 w/m
Max. Working Temp.	-60 °C / +200°C
Tolerance	Resistance: ± %10 Dia.: +0,2 mm / -0,2 mm Length :±%1

Total Length (m)	Heating Section (m)	40 W/M	50 W/M
2	1	40	50
2,5	1,5	60	75
3	2	80	100
4	3	120	150
5	4	160	200
6	5	200	250
7	6	240	300
8	7	280	350

ENG-DHC - SILICONE INSULATED DRAIN HEATING CABLE DS2/T

Applications

These heating cables are usually used to prevent ice formation of water inside pipes of cold room cooling equipments. As a result, they contribute to systems to function for a long period of time efficiently.

Characteristic

PRODUCT CODE :532
DS2/T:Silicone insulated draing heating cable with thermostat

TECHNICAL DETAILS	DS2/T
Conductor Diameter	0,50 mm²
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5,00 mm-7,00 mm
Max. Ohm	5000 ohm/m
Max. Voltage	220-230 v
Max. Power	40w/m - 50 w/m
Max. Working Temp.	-60 °C / +200°C
Tolerance	Resistance: ± %10 Dia.: +0,2 mm / -0,2 mm Length :±%1
Ending Insulation	Shiring tube
Thermostat	+5/+20°C

Total Length (m)	Heating Section (m)	40 W/M	50 W/M
2	1	40	50
2,5	1,5	60	75
3	2	80	100
4	3	120	150
5	4	160	200
6	5	200	250
7	6	240	300
8	7	280	350

ENG-CHT - CONSTANT WATTAGE HEATING CABLE SILICONE + POLYOLEFIN

Applications

These heating cables are mainly used to prevent ice formation in order to flow water properly from roof gutters and downspouts. By this way, it also provides an extra and general protection to building facades. By preventing from icicles, it helps to protect people and prevent from occurance of dangerous situations around buildings.

Characteristic

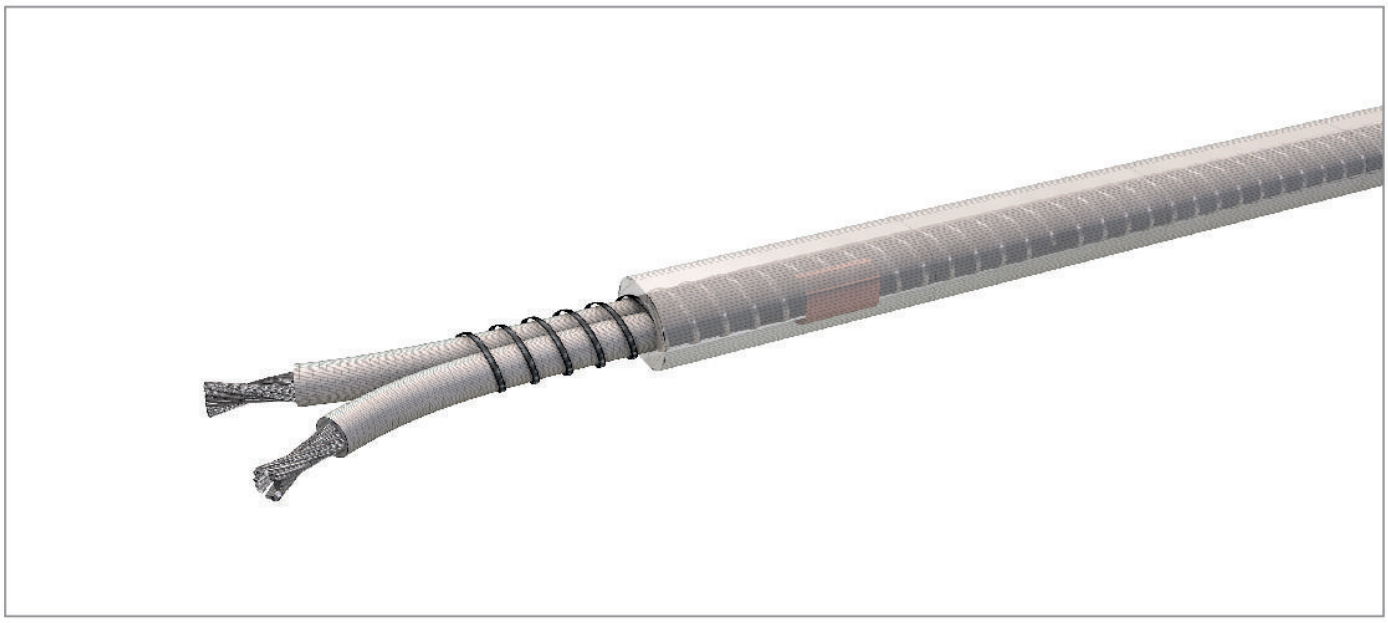
PRODUCT CODE :533/1
KSP/C: Silicone insulated, silicone common sheath, copper wire braided, polyolefin outer sheath constant wattage heating cable

PRODUCT CODE :534/2
KSP/S: Silicone insulated, silicone common sheath, steel wire braided, polyolefin outer sheath constant wattage heating cable

These heating cable consists of paralel resistance circuits, and it has contact points at every 50 cm. It can be cut to desired length.

TECHNICAL DETAILS	KSP/C—KSP/S
Conductor Diameter	2x0,75 mm² Tinned Copper
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	8,00x11,00 mm
Max. Ohm	1613 ohm/m
Max. Voltage	220-230 v
Max. Power	30 w/m
Max. Working Temp.	-30 °C / +95°C
Tolerance	Resistance: ± %10 Dia.: +0,2 mm / -0,2 mm Length :±%1
Ending Insulation	Shiring Tube or Silicone Ending Piece
Max. Circuit Length	80 meter

ENG-CTH - CONSTANT WATTAGE SILICONE INSULATED CUTTABLE HEATING CABLE



Applications

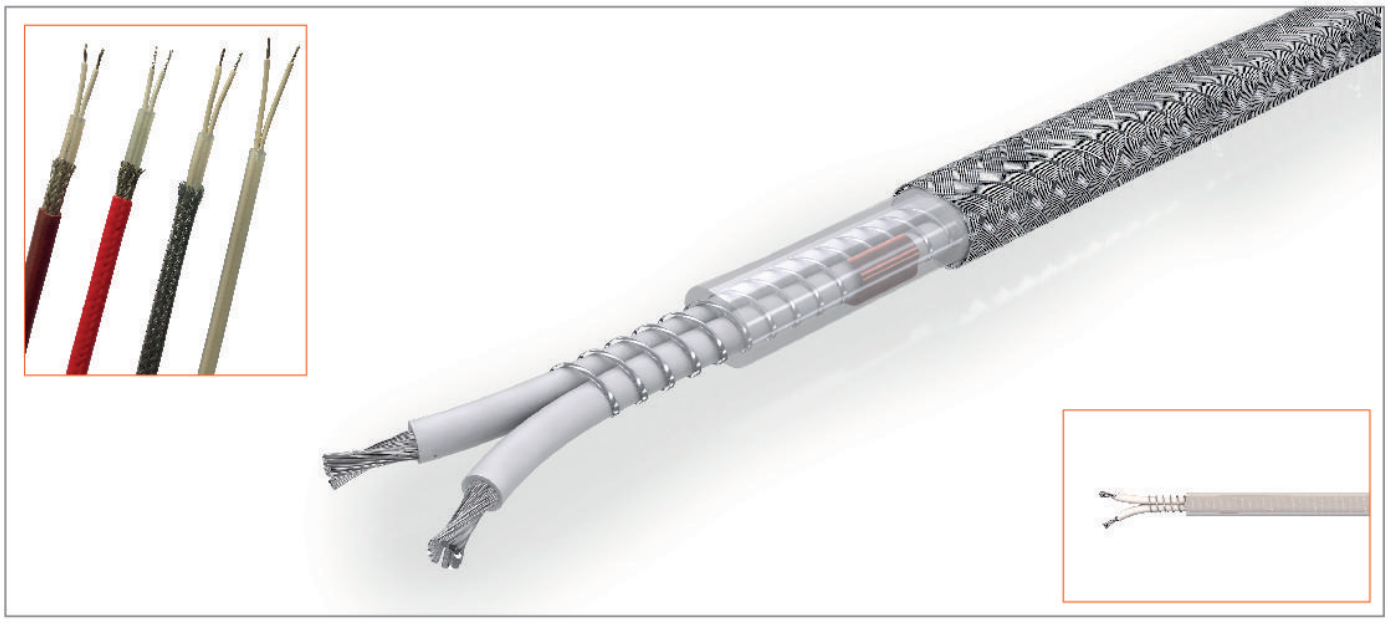
These heating cables' are mainly used as heat tracing tools to stabilise temperature of liquid transferring pipes and liquids in many industrial facilities like thermal power plants, chemical plants, etc. These cables are the most important part of the heat tracing systems. They also can be used safely to prevent moisture and icing from cooling systems.

Characteristic

PRODUCT CODE :535
KS: Silicone insulated core, Silicone Outer Sheath Cuttable Heating Cable

TECHNICAL DETAILS	KS-KS/C-KS/S
Conductor Diameter	2x0,75 mm2 Nickel-Copper
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5x7 mm
Max. Ohm	----------
Max. Voltage	220-230 v
Max. Power	20-60 w-m
Max. Working Temp.	-70 0C / +200 0C
Tolerance	Resistance: ± %10 Dia.: +0,2 mm / -0,2 mm Length :±%1
Max. Circuit Length	40...80 meter

ENG-CHT - CONSTANT WATTAGE SILICONE INSULATED HEATING CABLE



Applications

These heating cables are mainly used as heat tracing tools to stabilise temperature of liquid transferring pipes and liquids in many industrial facilities like thermal power plants, chemical plants, etc. These cables are the most important part of the heat tracing systems. They also can be used safely to prevent moisture and icing from cooling systems.

Characteristic

PRODUCT CODE :535
KS: Silicone insulated core, silicone outer sheath heating cable

PRODUCT CODE :536
KS/C: Silicone insulated core, silicone outer sheath, copper wire braided heating cable

PRODUCT CODE :537
KS/S: Silicone insulated core, silicone outer sheath, steel wire braided heating cable

TECHNICAL DETAILS	KS –KS/C-KS/S
Conductor Diameter	2x0,75 mm² Tinned Copper(Optional)
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5 x 7 mm/6 -8 mm/ 8-10mm/
Max. Ohm	----------
Max. Voltage	220-230 v
Max. Power	20-60w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ± %10 Dia.: +0,2 mm / -0,2 mm Length :±%1
Ending Insulation	Shiring tube or silicone ending piece
Max. Circuit Length	40....80 meter

ENG-CHT - CONSTANT WATTAGE SILICONE INSULATED HEATING CABLE

Applications

These heating cables are mainly used as heat tracing tools to stabilise temperature of liquid transferring pipes and liquids in many industrial facilities like thermal power plants, chemical plants, etc. These cables are the most important part of the heat tracing systems. They also can be used safely to prevent moisture and icing from cooling systems.

Characteristic

PRODUCT CODE :538
KSS/C: Silicone insulated core, double silicone sheath, copper wire braided heating cable

PRODUCT CODE :539
KSS/S: Silicone insulated core, double silicone sheath, steel wire braided heating cable

TECHNICAL DETAILS	KSS/C----KSS/S
Conductor Diameter	2x0,75 mm² Tinned Copper(Optional)
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	5 x 7 mm/6 -8 mm/ 8-10mm/
Max. Ohm	----------
Max. Voltage	220-230 v
Max. Wattage	20-60w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1
Ending Insulation	Shiring tube or Silicone Ending Piece
Max. Circuit Length	40....80 meter

ENG-CHT - CONSTANT WATTAGE FLUOROPOLYMER INSULATED HEATING CABLE

Applications

Due to its thinner construction, these cables are used at cooling sector and cooling devices to protect thinner pipes from ice formations. Compared to other cuttable heating cables, its smaller diameter brings many advantages

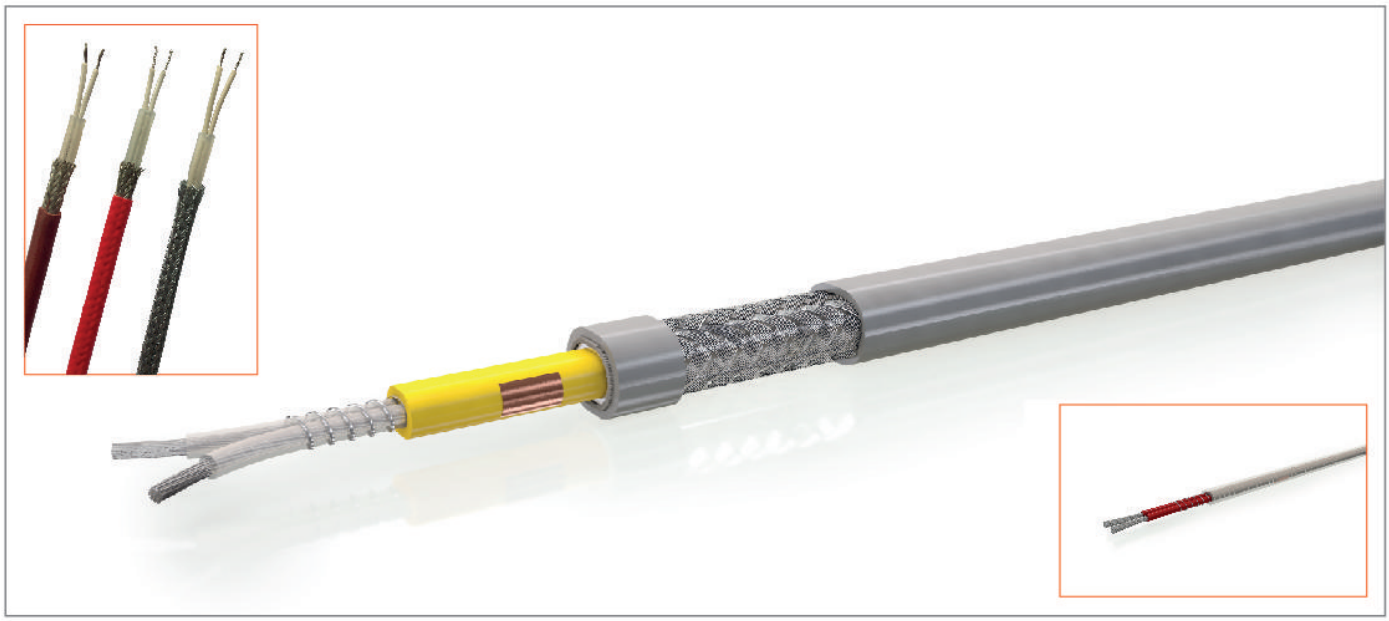
Characteristic

PRODUCT CODE :540
KFSM: Fluoropolymer insulated, silicone outer sheath, cuttable heating cable
(Thinner construction)

PRODUCT CODE :541
KFSM/C: Fluoropolymer insulated, silicone outer sheath, copper wire braided cuttable heating cable

TECHNICAL DETAILS	KSFM	KSFM/C
Conductor Diameter	2x0,22 mm² Tinned Copper(Optional)	
Heating Wire	Nickel-Chrome or Nickel-Copper	
Outer Diameter	3,80 mm---4,30 mm	
Max. Ohm	----------	
Max. Voltage	220-230 v	
Max. Wattage	10w/m----40 w/m	
Max. Working Temp.	-70 °C / +200°C	
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1	
Ending Insulation	Shiring tube or Silicone ending piece	
Max. Circuit Length	25 meter	

ENG-CHT - CONSTANT WATTAGE FLUOROPOLYMER INSULATED HEATING CABLE



Applications

These heating cables are mainly used as heat tracing tools to stabilise temperature of liquid transferring pipes and liquids in many industrial facilities like thermal power plants, chemical plants, etc. These cables are the most important part of the heat tracing systems. They also can be used safely to prevent moisture and icing from cooling systems.

Characteristic

PRODUCT CODE :542
KFS/C: Silicone insulated, Fluoropolymer outer sheath, copper wire braided cuttable heating cable

PRODUCT CODE :543
KFS/S: Silicone insulated, Fluoropolymer outer sheath, steel wire braided cuttable heating cable

TECHNICAL DETAILS	KSF—KSF/C—KSF/S
Conductor Diameter	2x0,75 mm² Tinned Copper(Optional)
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	7-9 mm/7-9mm
Max. Ohm	----------
Max. Voltage	220-230 v
Max. Wattage	20-60w/m
Max. Working Temp.	-70 °C / +200°C
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1
Ending Insulation	Shiring tube or Silicone ending piece
Max. Circuit Length	40....80 meter

ENG-ZTA - UNDERFLOOR HEATING CABLE ZTP-ZTF-ZTP/CP-ZTF/CF

Applications

These heating cables are especially preferred for underfloor heating systems in cold storage rooms to prevent from ice formation and at open areas to for underfloor heating applications to prevent from snow and icing. They are also used safely for domestic heating and for underasphalt/concrete heating at parking garage entrances against icing.

Characteristic

PRODUCT CODE :544
ZTP:105 °C PVC insulated, PVC outer sheath heating cable

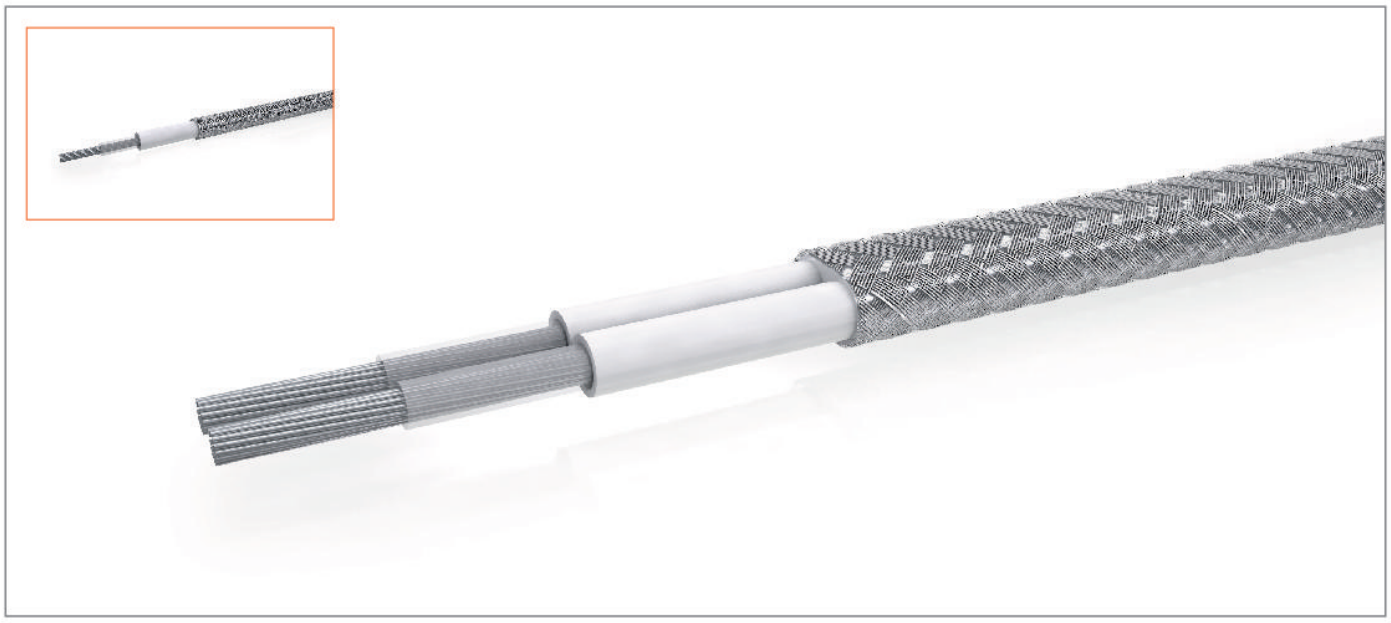
PRODUCT CODE :545
ZTF:FEP insulated, PVC outer sheath,
heating cable

PRODUCT CODE :546
ZTP/CP: 105 °C PVC insulated, copper wire braided, PVC outer sheath, heating cable

PRODUCT CODE :547
ZTF/CF: FEP insulated,XLPE 2.insulation, copper wire braided, 105 °C PVC outer sheath,
heating cable

TECHNICAL DETAILS	ZTP-ZTF ZTP/CP-ZTF/CF
Glassfibre Diameter	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	4,00 mm7,00 mm
Max. Ohm	4000 ohm/m
Max. Voltage	500 V
Max. Wattage	15 w/m-20 w/m
Max. Working Temp.	-30 °C / +105°C
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

ENG-SHT - SERIES RESISTANCE FLUOROPOLYMER + SILICONE INSULATED HEATING CABLE
FSRL-FSRL/C-FSL/S FSRL2-FSRL2/C-FSRL2/S



Applications

These heating cables are mainly used in industrial facilities for long pipe lines to stabilise temperatures and to protect pipes againts freezing.

Characteristic

PRODUCT CODE :548
FSRL : FEP insulated, silicone sheathed heating cable

PRODUCT CODE :549
FSRL/C: FEP insulated, silicone sheathed, tinned-copper wire braided heating cable

PRODUCT CODE :550
FSRL/S: FEP insulated, silicone sheathed, steel wire braided heating cable

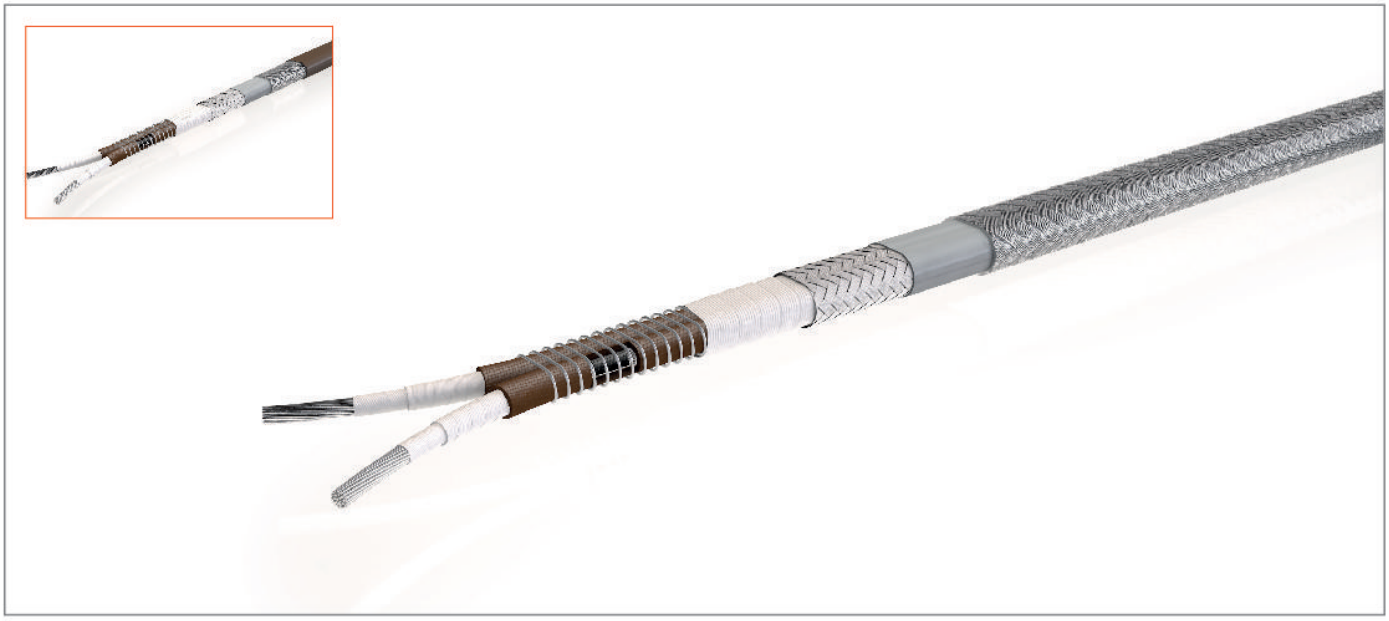
PRODUCT CODE :551
FSRL2: FEP insulated, silicone sheathed, twin core heating cable

PRODUCT CODE :552
FSRL2/C: FEP insulated, silicone sheathed, twin core, tinned-copper wire braided heating cable

PRODUCT CODE :553
FSRL2/S: FEP insulated, silicone sheathed, twin core, steel wire braided heating cable

TECHNICAL DETAILS	FSRL-FSRL/C- FSRL/S FSRL2-FSRL2/C-FSRL2/S
Heating Wire	Nickel-Chrome or Nickel-Copper
Conductor Insulation	FEP
Outer Diameter	4,00 mm -4,6mm 5x7 mm ---7x9 mm
Max. Ohm	----------
Max. Voltage	600 v
Max. Wattage	30W/M-40 W/M
Max. Working Temp.	-60 °C / +200 °C
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

ENG-YTH - GLASSFIBRE + FLUOROPOLYMER(PFA) + STEEL WIRE BRAIDED CONSTANT WATTAGE HEATING CABLE 270 °C C3FM/S-C3FM/SF



Applications

These heating cables are usually applied in industrial facilities safely to places that need to be heated up to 270°C or to pipe heating systems for stabilising temperatures. Our firm can produce the cable in different voltage or wattage.

Characteristic

PRODUCT CODE :555
C3FM/S: Triple Glassfibre insulation, PFA common sheath, Steel wire braided, Constant Wattage heating cable

PRODUCT CODE :556
C3FM/SF : Triple Glassfibre insulation, PFA common sheath, steel wire braided + PFA outer sheath, Constant Wattage heating cable

TECHNICAL DETAILS	C3FM/S--- --- C3FM/SF
Conductor Cons.	1,5 mm² Nickel-plated Copper
Heating Wire	Nickel-Chrome
Outer Diameter	7,00 mm-9,00mm----8,00 mm -10 mm
Max. Voltage	600 v
Max. Wattage	150 w/m
Max. Working Temp.	-60°C / +270°C
Max. Circuit Length	50w/m-100w/m -125w/m-150w/m 120 M -70 M 60 M - 50 M
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

ENG-YTH - GLASSFIBRE INSULATED + STEEL WIRE BRAIDED CONSTANT WATTAGE HEATING CABLE +325 °C C3M/S

Applications

These heating cables are usually applied in industrial facilities safely to places that need to be heated up to 325°C or to pipe heating systems for stabilising temperatures. Our firm can produce the cable in different voltage or wattage.

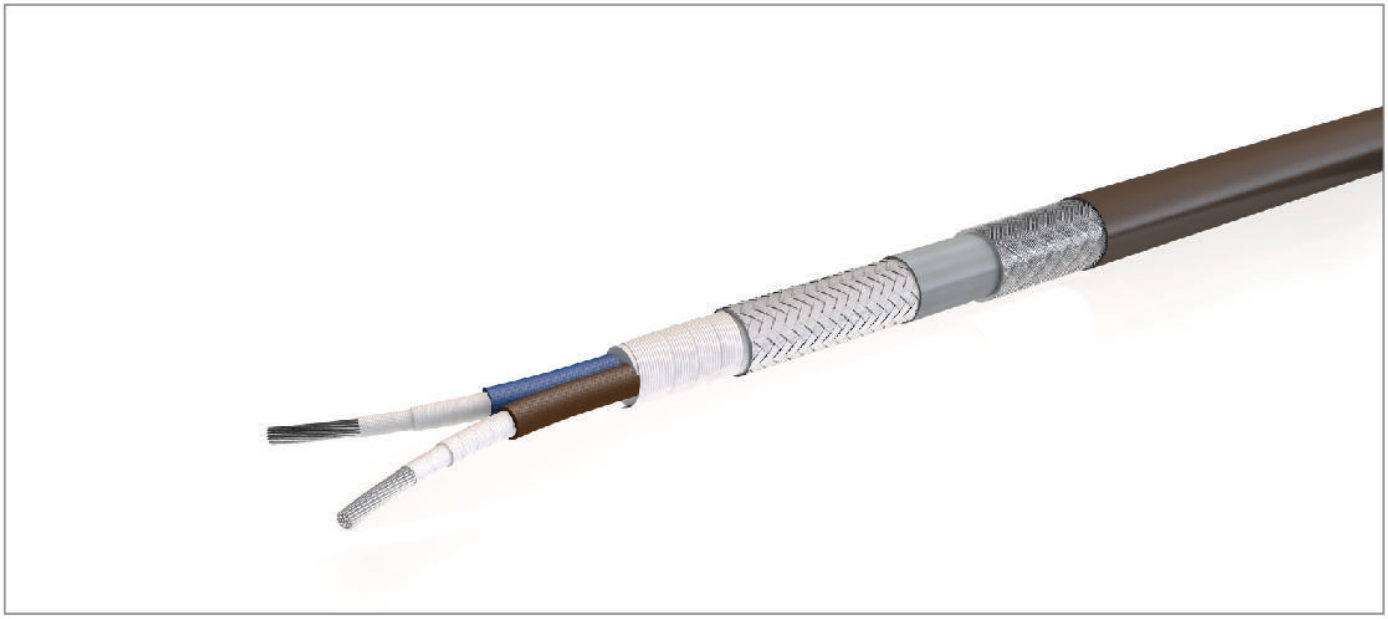
Characteristic

PRODUCT CODE :557

C3M/S: Triple Glassfibre insulation + Steel Wire Braided, Constant Wattage heating cable

TECHNICAL DETAILS	C3M/S
Conductor Cons.	1,5 mm² Nickel-plated Copper
Heating Wire	Nickel-Chrome
Outer Diameter	7,00 mm-9,00mm
Max. Voltage	600 v
Max. Wattage	350 w/m
Max. Working Temp.	-60°C / +325°C
Max. Circuit Length	50w/m-100w/m -125w/m-150w/m 120 M -70 M 60 M - 50 M
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

ENG-YTH - GLASSFIBRE INSULATED + STEEL WIRE BRAIDED + FLUOROPOLYMER SHEATHED SERIES RESISTANCE HEATING CABLE +270°C / +325°C C3SM/S ----- C3SFM /SF



Applications

These heating cables are usually applied in industrial facilities safely to places that need to be heated up to 325°C or to pipe heating systems for stabilising temperatures. Our firm can produce the cable in different voltage or wattage. Series Resistance heating cables are preferred for long lines due to its price advantage.

Characteristic

PRODUCT CODE :558
C3SM /S: Triple Glassfibre insulation, Steel wire braided, Series Resistance heating cable
+325 °C Working Temperature
C3SFM/SF : Triple Glassfibre insulation, PFA sheath, Steel wire braided, PFA outer sheath Series Resistance heating cable
+270 °C Working Temperature

It can be used safely in moisture environments.

TECHNICAL DETAILS	C3SM /S---C3SFM/SF
Conductor Cons.	Nickel-Copper / Nickel-Chrome
Outer Diameter	7,00 mm-9,00mm
Max. Voltage	600 v
Max. Wattage	150 w/m
Max. Working Temp.	-60°C / +325°C -60°C / +270°C
Max. Circuit Length	50w/m-100w/m -125w/m-150w/m Note: It can be produced as desired voltage, wattage and length.
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

ENG-KRH - SILICONE INSULATED CRANKCASE HEATING CABLE KRHS

Applications

These heating cables are mainly used for heating crankcases of cooling systems. It can be produced as desired measurements and power(wattage and voltage).

Characteristic

PRODUCT CODE :554

KRHS: Silicone insulated band type heating cable

Note: It can be produced as desired measurements and power(wattage, voltage). For detailed information please contact us.

TECHNICAL DETAILS	KRHS
Fiber Glass Çap	0,8 mm -1,2 mm
Heating Wire	Nickel-Chrome or Nickel-Copper
Outer Diameter	3,6 X13,50 mm
Max. Ohm	5000 ohm/m
Max. Voltage	600 v
Max. Wattage	100 w/m
Max. Working Temp.	-60 °C / +200°C
Tolerance	Resistance: ±%10 Dia.: +0,2 mm - 0,2 mm Length:±%1

GLASSFIBRE & MICA INSULATED HEAT RESISTANT CABLES

GLASSFIBRE INSULATED HEAT RESISTANT CABLES

(-90 0C / 350 0C / 400 0C, peaks at 1400 0C)

PVC, silicone, and fluoropolymer insulated cables can not fit the high temperature requirements between -90 0C and +400 0C in industrial facilities.

Glassfibre and mica insulated cables are usually needed for high temperature furnaces, glass, ceramic, cement, and iron-steel industries.

Our firm produces these cables with care. Our cables are exported to other countries and provided to national industry at the same time.

We can produce special cables that fit your requirements apart from this catalogue.

www.enginrezistans.com.tr - info@enginrezistans.com.tr

CONTENTS

SINGLE CORE GLASSFIBRE INSULATED HEAT RESISTANT CABLE

MULTI CORE GLASSFIBRE INSULATED HEAT RESISTANT CABLE

ENG-HTCK - CCS-N2 MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE INSULATED HEAT RESISTANT CABLE -60°C/+280°C

Conductor
- Multi wire, %2 nickel-plated electrolytic flexible copper conductor

Insulation
- Silicone impregnated double glassfibre braid

Outer Insulation
- Silicone impregnated glassfibre braid

Package
- Rolls, Plastic or Wood drums

Applications
- Circuit connections of electrical components and wiring of heating elements of industrial kitchens
- Wiring of all kinds of industrial machines that are exposed to temperatures between -60°C and+280°C

Technic Data
- (-60 °C/+280 °C) Continuous Working Temperature
- +350°C Short time Working Temperature
- Resistance to thermal shock
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Section Area (mm2)	Conductor Cons. (mm)	Nominal Stranded Diameter	Max. Conductor Resistance (Ω/km)	Nominal Diameter (mm)	Approx. Weight (gr/m)
0,50	7x0,30/19x0,18/16x0,50	0,90	39	2,10	8,60
0,75	19x0,22/ 11x0,30	1,20	26	2,40	11,80
1,00	14x0,30/19x0,26	1,40	19,50	2,5	14,07
1,50	21x0,30/19x0,31	1,70-1,60	13,3	2,80	20,3
2,50	35x0,30/37x0,29	2,10	7,98	3,25	32,60
4,00	56x0,30	2,70	4,95	4,10	49,8
6,00	84x0,30	3,25	3,30	4,70	72,0
10,00	80x40/141x0,30	4,20	1,91	6,50	132,0
16,00	126x0,40/226x0,30	5,30	1,21	7,70	210
25,00	196x0,40		0,78	10,7	325
35,00	276x0,40		0,554	12,50	421
50,00	396x0,40		0,386	13,20	585
70,00	360x0,50		0,272	16,70	803

ENG-HTCK - CCS-N4 MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE INSULATED HEAT RESISTANT CABLE -60°C/+350°C

Conductor
- Multi wire, %4 nickel-plated electrolytic flexible copper conductor

Insulation
- Silicone impregnated double glassfibre braid

Outer Insulation
- Silicone impregnated glassfibre braid

Package
- Rolls, Plastic or Wood drums

Applications
- Circuit connections of electrical components and wiring of heating elements of industrial kitchens
- Wiring of all kinds of industrial machines that are exposed to temperatures between -60°C and+350°C

Technic Data
- (-60 °C/+350 °C) Continuous Working Temperature
- +450°C Short time Working Temperature
- Resistance to thermal shock
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Section Area (mm2)	Conductor Cons. (mm)	Nominal Stranded Diameter	Max. Conductor Resistance (Ω/km)	Nominal Diameter (mm)	Approx. Weight (gr/m)
0,50	7x0,30/19x0,18/16x0,50	0,90	39	2,10	8,60
0,75	19x0,22/ 11x0,30	1,20	26	2,40	11,80
1,00	14x0,30/19x0,26	1,40	19,50	2,5	14,07
1,50	21x0,30/19x0,31	1,70-1,60	13,3	2,80	20,3
2,50	35x0,30/37x0,29	2,10	7,98	3,25	32,60
4,00	56x0,30	2,70	4,95	4,10	49,8
6,00	84x0,30	3,25	3,30	4,70	72,0
10,00	80x40/141x0,30	4,20	1,91	6,50	132,0
16,00	126x0,40/226x0,30	5,30	1,21	7,70	210
25,00	196x0,40		0,78	10,7	325
35,00	276x0,40		0,554	12,50	421
50,00	396x0,40		0,386	13,20	585
70,00	360x0,50		0,272	16,70	803

ENG-HTCK - NCS NICKEL MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE BRAID INSULATED HEAT RESISTANT CABLE -60°C/+350°C

Conductor
- Multi wired, pure nickel conductor

Insulation
- Silicone impregnated, Double Glassfibre Braid

Outer Insulation
- Silicone impregnated Glassfibre Braid

Package
- Rolls, Plastic or Wood drums

Applications
- Circuit connections of electrical components and wiring of heating elements of industrial kitchens
- Wiring of industrial kitchen furnaces
- Wiring of all kinds of industrial machines that are exposed to temperatures between -60°C and+350°

Technic Data
- (-60 °C/+400°C) Continuous Working Temperature
- + 450°C Short time Working Temperature
- Resistance to thermal shocks
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Section Area (mm2)	Conductor Cons. (mm)	Nominal Stranded Dia.	Max. Conductor Resistance (Ω/km)	Nominal Diameter (mm)	Approx. Weight (gr/m)
0,50	7x0,30/19x0,18/16x0,50	0,90	39	2,10	8,60
0,75	19x0,22/ 11x0,30	1,20	26	2,40	11,80
1,00	14x0,30/19x0,26	1,40	19,50	2,5	14,07
1,50	21x0,30/19x0,31	1,70-1,60	13,3	2,80	20,3
2,50	35x0,30/37x0,29	2,10	7,98	3,25	32,60
4,00	56x0,30	2,70	4,95	4,10	49,8
6,00	84x0,30	3,25	3,30	4,70	72,0
10,00	80x40/141x0,30	4,20	1,91	6,50	132,0
16,00	126x0,40/226x0,30	5,30	1,21	7,70	210
25,00	196x0,40		0,78	10,7	325
35,00	276x0,40		0,554	12,50	421
50,00	396x0,40		0,386	13,20	585
70,00	360x0,50		0,272	16,70	803

ENG-HTCK - NMIC-MF - NMIC-MF/M NICKEL CONDUCTOR, MICA INSULATED, MINERAL FIBRE BRAIDED AND GALVANIZED STEEL BRAIDED HEAT RESISTANT CABLE -60°C/+550 °C

NMIC-MF - NMIC-MF/M

Conductor
- Multi wired, pure nickel conductor

Insulation
- Mica tape insulation

Outer Insulation
- Silicone impregnated mineral fibre braid

Armour
- Pure Nickel Braid

Package
- Rolls, Plastic or Wood drums

Applications
- Iron-Steel IndustryDemir çelik sanayi tesisleri
- Glass and Ceramic Industry
- Foundries
- Wiring of high wattage heating elements

Technic Data
- (-60 °C/+550 °C) Continuous Working Temperature
- 600°C Short time Working Temperature
- Resistance to thermal shocks
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Conductor Diameter	Outer Diameter (mm ±0,10)	Approx. Weight (gr/m)
0,50	7X0,30/19X0,18	2,25	10
0,75	11X0,30/19X0,22	2,55	13,50
1,00	14X0,30/19X0,26	2,65	15,90
1,50	21X0,30/19X0,31	2,95	21,50
2,50	35X0,30/37X0,29	3,35	33,60
4,00	556X0,39	4,35	53,20
6,00	85X0,36	5,35	79,70
10,00	141X0,30	6,55	130,80
16,00	128X0,40	8,25	104,60
25,00	127X0,50	10,45	316

ENG-HTCK - CCSM MULTI WIRE CONDUCTOR, MULTI CORE GLASSFIBRE INSULATED GALVANIZED STEEL BRAIDED HEAT RESISTANT CABLE -60°C/+350°C

Conductor
- Multi wire nickel-plated electrolytic flexible copper conductor

Insulation
- Silicone impregnated double glassfibre braid

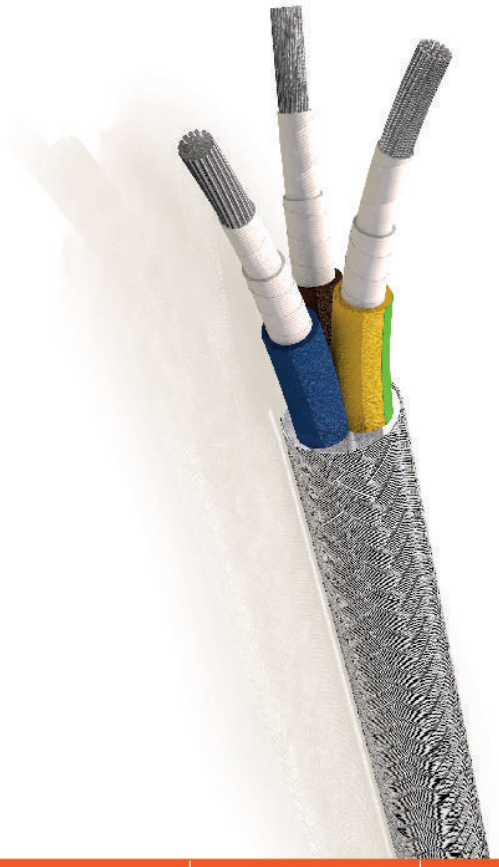
Outer Insulation
- Silicone impregnated glassfibre braid

Armour
- Galvanized Steel Braided

Package
- Rolls, Plastic or Wood drums

Applications
- Circuit connections of electrical components and wiring of heating elements of industrial kitchens
- Wiring of all kinds of industrial machines that are exposed to temperatures between -60°C and+350°C

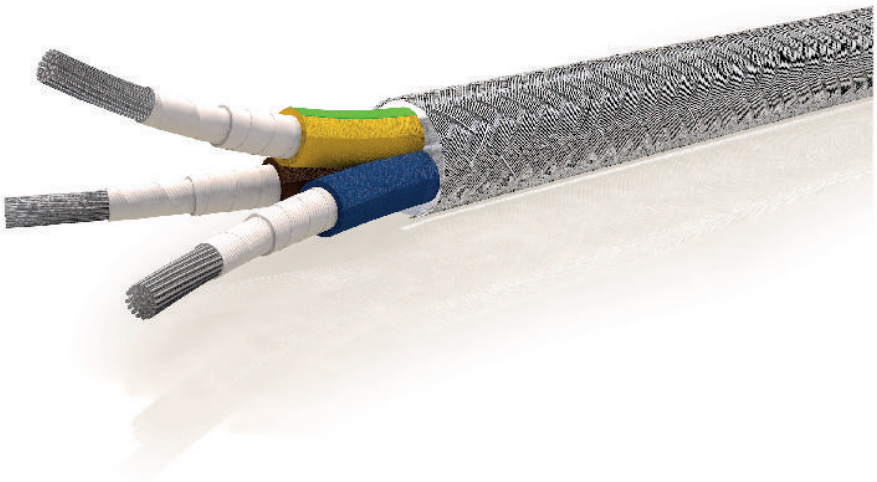
Technic Data
- (-60 °C/+350 °C) Continuous Working Temperature
- +450°C Short time Working Temperature
- Resistance to thermal shock
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V



Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Nominal Insulation Dia. (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	2,10	5,00	42
2x0,75	0,21	26,0	2,30	5,60	47
2x1,00	0,21	19,50	2,50	5,90	50
2x1,5	0,26	13,3	2,80	6,60	76
2x2,5	0,26	7,98	3,20	7,50	115
2x4,00	0,31	4,95	4,10	9,20	159
2x6,00	0,31	3,30	4,80	10,40	216
2x10,00	0,41	1,86	6,50	14,20	355
3x0,50	0,21	39,00	2,10	5,50	51
3x0,75	0,21	26,0	2,30	5,96	70,4
3x1,00	0,21	19,50	2,50	6,40	87
3x1,5	0,26	13,3	2,80	7,10	116
3x2,5	0,26	7,98	3,20	8,00	165

ENG-HTCK - CCSM MULTI WIRE CONDUCTOR, MULTI CORE GLASSFIBRE INSULATED GALVANIZED STEEL BRAIDED HEAT RESISTANT CABLE -60°C/+350°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Nominal Insulation Dia. (mm)	Outer Diameter (mm)	
3x4,00	0,31	4,95	4,10	9,85	
3x6,00	0,31	3,30	4,80	11,20	390
3x10,00	0,41	1,86	6,50	15,5	
4x0,50	0,21	39,00	2,10	6,00	63
4x0,75	0,21	26,0	2,30	6,6	
4x1,00	0,21	19,50	2,50	7,10	105
4x1,5	0,26	13,3	2,8	7,80	
4x2,5	0,26	7,98	3,20	8,9	228
4x4,00	0,31	4,95	4,10	9,95	
4x6,00	0,31	3,30	4,80	12,50	415
4x10,00	0,41	1,86	6,50	17,00	
4x16,00	0,41		7,70	20,00	1012
5x0,50	0,21	39,00	2,10	6,70	
5x0,75	0,21	26,0	2,30	7,25	111
5x1,00	0,21	19,50	2,50	7,60	
5x1,5	0,26	13,3	2,80	8,56	170
5x2,5	0,26	7,98	3,20	9,80	
5x4,00	0,31	4,95	4,10	12,20	310
5x6,00	0,31	3,30	4,80	13,80	
6x0,75	0,21	26,0	2,30	8,00	132
6x1,00	0,21	19,50	2,50	8,50	
6x1,5	0,26	13,3	2,80	9,50	210
6x2,5	0,21	7,98	3,20	10,75	
7x0,75	0,21	26,0	2,30	8,00	163
7x1,00	0,21	19,50	2,50	8,50	
7x1,5	0,26	13,3		11,40	262



ENG-HTCK - NCSM MULTI WIRED NICKEL CONDUCTOR, MULTI CORE GLASSFIBRE INSULATED GALVANIZED STEEL BRAIDED HEAT RESISTANT CABLE -60°C/+400°C

Conductor
- Multi wired, pure nickel conductor

Insulation
- Silicone impregnated double glassfibre braid

Outer Insulation
- Silicone impregnated glassfibre braid

Armour
- Galvanized Steel Braid

Package
- Rolls, Plastic or Wood drums

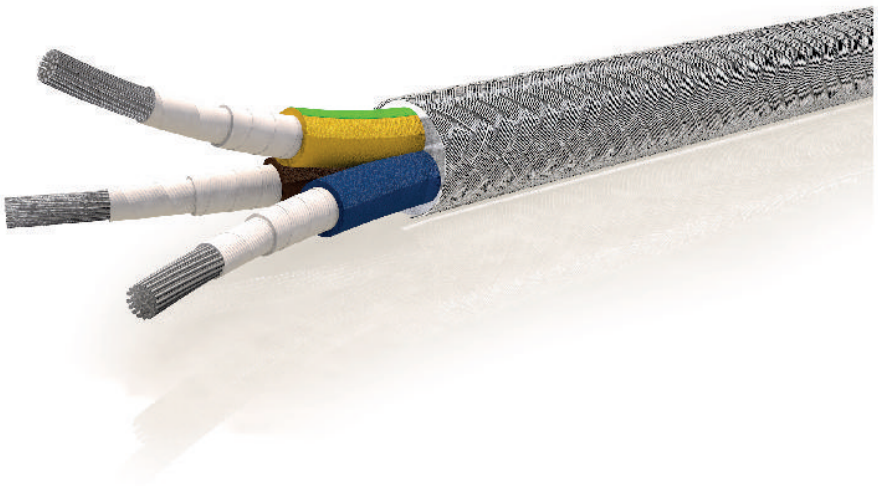
Applications
- Circuit connections of electrical components and wiring of heating elements of industrial kitchens
- Wiring of all kinds of industrial machines that are exposed to temperatures between -60°C and+400°C

Technic Data
- (-60 °C/+400 °C) Continuous Working Temperature
- +500°C Short time Working Temperature
- Resistance to thermal shock
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Nominal Insulation Diameter (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	7x0,30/19x0,18	2,10	5,00	42
2x0,75	0,21	11x0,30/19x0,22	2,30	5,60	47
2x1,00	0,21	14x0,30/19x0,26	2,50	5,90	50
2x1,5	0,26	21x0,30/19x0,31	2,80	6,60	76
2x2,5	0,26	35x0,30/37x0,29	3,20	7,50	115
2x4,00	0,31	56x0,30	4,10	9,20	159
2x6,00	0,31	84x0,30	4,80	10,40	216
3x0,50	0,21	7x0,30/19x0,18	2,10	5,50	51
3x0,75	0,21	11x0,30/19x0,22	2,30	5,96	70,4
3x1,00	0,21	14x0,30/19x0,26	2,50	6,40	87
3x1,5	0,26	21x0,30/19x0,31	2,80	7,10	116
3x2,5	0,26	35x0,30/37x0,29	3,20	8,00	165
3x4,00	0,31	56x0,30	4,10	9,85	274

ENG-HTCK - NCSM MULTI WIRED NICKEL CONDUCTOR, MULTI CORE GLASSFIBRE INSULATED GALVANIZED STEEL BRAIDED HEAT RESISTANT CABLE -60°C/+400°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Nominal Insulation Dia. (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
3x6,00	0,31	84x0,30	4,80	11,20	390
4x0,50	0,21	7x0,30/19x0,18	2,10	6,00	63
4x0,75	0,21	11x0,30/19x0,22	2,30	6,6	95
4x1,00	0,21	14x0,30/19x0,26	2,50	7,10	105
4x1,5	0,26	21x0,30/19x0,31	2,8	7,80	146
4x2,5	0,26	35x0,30/37x0,29	3,20	8,9	228
4x4,00	0,31	56x0,30	4,10	9,95	305
4x6,00	0,31	84x0,30	4,80	12,50	415
5x0,50	0,21	7x0,30/19x0,18	2,10	6,70	79
5x0,75	0,21	11x0,30/19x0,22	2,30	7,25	111
5x1,00	0,21	14x0,30/19x0,26	2,50	7,60	124
5x1,5	0,26	21x0,30/19x0,31	2,80	8,56	170
5x2,5	0,26	35x0,30/37x0,29	3,20	9,80	244
5x4,00	0,31	56x0,30	4,10	12,20	310
6x0,75	0,21	11x0,30/19x0,22	2,30	8,00	132
6x1,00	0,21	14x0,30/19x0,26	2,50	8,50	168
6x1,5	0,26	21x0,30/19x0,31	2,80	9,50	210
6x2,5	0,21	35x0,30/37x0,29	3,20	10,75	295
7x0,75	0,21	11x0,30/19x0,22	2,30	8,00	163
7x1,00	0,21	14x0,30/19x0,26	2,50	8,50	192
7x1,5	0,26	21x0,30/19x0,31		11,40	262



FLUOROPOLYMER INSULATED CABLES

FLUOROPOLYMER INSULATED HIGH TEMPERATURE CABLES

(FEP -90 0C / 205 0C----- PFA -90 0C / 260 0C)

Fluoropolymer cables have satisfactory values in terms of chemical, thermal, electrical and mechanical resistance, fluoropolymer cable is a convenient preference under high temperatures that reach up to +2600C. Compared to other insulation classes, thickness of insulation, diameter of cable can be thinner. Thanks to this feature, cable weighs less and sizes can become smaller. This situation increases the preferability of fluoropolymer cables. Our firm produces fluoropolymer insulated cables with care.

CONTENTS

Engin
HEATERS & CABLE INDUSTRY
TRADE INC. CO.

ENG-FLPC - FEP-Li6Y MULTI WIRE CONDUCTOR, SINGLE CORE FLUOROPOLYMER INSULATED CABLE

STANDARDS: VDE 881,VDE 207-6

Conductor
- Red, tin or nickel-plated electrolytic annealed flexible copper
- Class-2 or Class-5 as per IEC 60228

Insulation
- FEP Fluoropolymer insulation

Package
- Rolls, Plastic or Wood Drums

Applications
- Wiring of machines working at acidic or alkaline environments
- Wiring of machines at cold and hot environments
- Wiring of lighting luminaires
- Wiring systems of domestic appliances and electronic devices

Technic Data
- -90/+205 °C Continuous Working Temperature
- Resistance to thermal shock
- Resistance to UV and moisture
- Resistance to Ageing
- Resistance to Acidic and Alkaline environments
- Working Voltage: 450/750 V
- Test Voltage: 2500 V

Section Area (mm2)	Stranded Cons. (mm)	Conductor Diameter (mm)	Max. Conductor Resistance (Ω/km)	Insulation of Thickness (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
0,05	7x0,10	0,30	373	0,17	0,64	1,07
0,12	7x0,15	0,45	161	0,17	0,79	1,91
0,15	19x0,10	0,50	136	0,20	0,90	2,40
0,22	7x0,20	0,50	89,90	0,20	1,00	3,21
0,25	14x0,15	0,60	79,90	0,20	1,05	3,55
0,34	7x0,25	0,75	58,90	0,20	1,15	4,60
0,50	7x0,30/19x0,18	0,90	39,60	0,20	1,30	6,26
0,50	16x0,20	1,00	39	0,20	1,32	6,40
0,60	19x0,20	1,00	32,80	0,20	1,40	7,42
0,75	24x0,20	1,20	24,50	0,20	1,50	8,77
0,75	19x0,22	1,10	26	0,20	1,53	9,12
0,93	19x0,25	1,25	21	0,25	1,75	11,59
1,00	32x0,20	1,30	19,50	0,25	1,80	12,39
1,34	19x0,30	1,50	14,60	0,25	2,00	15,99
1,50	30x0,25/19x0,31	1,60	13,30	0,30	2,17	18,12
2,39	19x0,40	2,00	7,85	0,30	2,60	23,83
2,50	50x0,25/37x0,29	2,05/2,10	7,98	0,30	2,63	28,58
4,00	56x0,30/61x0,29	2,60	4,95	0,30	3,18	44,29
6,00	84x0,30/62x0,35	3,20	3,30	0,35	3,86	65,97
10,00	80x0,40	4,15	1,91	0,40	4,91	109,82

ENG-FLPC - PFA-Li5Y MULTI WIRE CONDUCTOR, SINGLE CORE FLUOROPOLYMER (PFA) INSULATED CABLE

STANDARDS: VDE 881,VDE 207-6

Conductor

- Red, tin or nickel-plated electrolytic annealed flexible copper
- Class-2 or Class-5 as per IEC 60228

Insulation

- PFA Fluoropolymer insulation

Package

- Rolls, Plastic or Wood Drums

Applications

- Wiring of machines working at acidic or alkaline environments
- Wiring of machines at cold and hot environments
- Wiring of lighting luminaires
- Wiring systems of domestic appliances and electronic devices

Technic Data

- -90/+260 °C Continuous Working Temperature
- Resistance to thermal shock
- Resistance to UV and moisture
- Resistance to Ageing
- Resistance to Acidic and Alkaline environments
- Working Voltage: 450/750 V
- Test Voltage: 2500 V

Section Area (mm2)	Stranded Cons. (mm)	Conductor Dia. (mm)	Max. Conductor Resistance (Ω/km)	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
0,05	7x0,10	0,30	373	0,17	0,64	1,07
0,12	7x0,15	0,45	161	0,17	0,79	1,91
0,15	19x0,10	0,50	136	0,20	0,90	2,40
0,22	7x0,20	0,50	89,90	0,20	1,00	3,21
0,25	14x0,15	0,60	79,90	0,20	1,05	3,55
0,34	7x0,25	0,75	58,90	0,20	1,15	4,60
0,50	7x0,30/19x0,18	0,90	39,60	0,20	1,30	6,26
0,50	16x0,20	1,00	39	0,20	1,32	6,40
0,60	19x0,20	1,00	32,80	0,20	1,40	7,42
0,75	24x0,20	1,20	24,50	0,20	1,50	8,77
0,75	19x0,22	1,10	26	0,20	1,53	9,12
0,93	19x0,25	1,25	21	0,25	1,75	11,59
1,00	32x0,20	1,30	19,50	0,25	1,80	12,39
1,34	19x0,30	1,50	14,60	0,25	2,00	15,99
1,50	30x0,25/19x0,31	1,60	13,30	0,30	2,17	18,12
2,39	19x0,40	2,00	7,85	0,30	2,60	23,83
2,50	50x0,25/37x0,29	2,05/2,10	7,98	0,30	2,63	28,58
4,00	56x0,30/61x0,29	2,60	4,95	0,30	3,18	44,29
6,00	84x0,30/62x0,35	3,20	3,30	0,35	3,86	65,97
10,00	80x0,40	4,15	1,91	0,40	4,91	109,82

ENG-FLPC - PFA/FEP MULTI WIRE CONDUCTOR, SINGLE CORE FLUOROPOLYMER INSULATED IGNITION CABLE

STANDARDS:VDE 881,VDE 207-6

Conductor
- Red, tin or nickel-plated electrolytic annealed flexible copper
- Class-2 or Class-5 as per IEC 60228

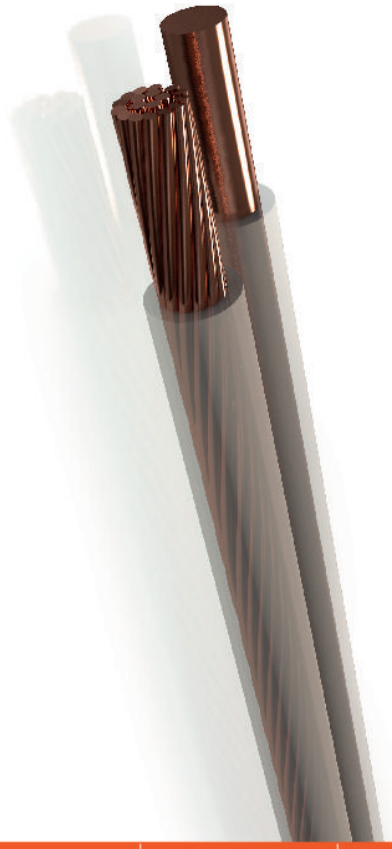
Insulation
- FEP/PFA Fluoropolymer insulation

Outer Sheath
- PFA Fluoropolymer

Package
- Rolls, Plastic or Wood Drums

Applications
- Ignition circuits
- Ignition circuits of electric furnaces

Technic Data
- PFA:-90/+260°C Continuous Working Temperature
- FEP: -90/+205°C Continuous Working Temperature
- Resistance to thermal shock
- Resistance to UV and moisture
- Resistance to Ageing
- Resistance to Acidic and Alkaline environments
- Ignition Voltage Approximately 5 KV - 20 KV



Reference	Section Area (mm2)	Stranded Cons. (mm)	Max. Conductor Resistance (Ω/km)	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
FEP,PFA	0,34	7X0,25	57,50	0,42	1,60	6,30
FEP	0,34	7X0,25	57,50	0,52	1,80	7,50
FEP	0,34	7X0,25	57,50	0,62	2,00	8,70
PFA	0,34	7X0,25	57,50	0,75	1,60	10,30
FEP	0,60	19X0,20	32,80	0,75	2,50	14,50
FEP	0,93	19X0,25	21,00	0,75	2,75	17,50

ENG-FLPC - 2PF/FL MULTI WIRE CONDUCTOR, MULTI CORE FLUOROPOLYMER(PFA) INSULATED CABLE -90°C/+260C

STANDARDS: VDE 02-207/6

Conductor

- Red, tin or nickel-plated electrolytic annealed flexible copper
- Class-2 or Class-5 as per IEC 60228

Insulation

- PFA Fluoropolymer

Outer Sheath

- PFA Fluoropolymer

Package

- Rolls, Plastic or Wood Drums

Applications

- Wiring and installation of machines which are subject to chemicals and hot environments
- Wiring of industrial machines working at moisture environments
- Wiring of lighting luminaires

Technic Data

- PFA: 90/+260 °C Continuous Working Temperature
- Resistance to thermal shock
- Resistance to UV and moisture
- Resistance to Ageing
- Working Voltage: 450/750 V
- Test Voltage: 2500 V

Section Area (mm2)	Conductor Cons. (mm)	Outer Diameter (mm)	Copper Weight	Approx. Weight (gr/m)
2X0,50	16x0,20/19x0,18	3,80	9,6	21,0
2X0,75	24x0,20/19x0,22	4,60	14,4	29,0
2X1,00	32x0,20/19x0,26	4,80	19,2	34,0
2X1,50	30x0,25/19x0,31	5,40	28,8	46,0
2X2,5	50x0,25/37x0,29	6,60	48,0	70,0
2X4,00	56x0,30	8,10	76,8	107,0
3X0,50	50x0,25	4,20	14,4	30,0
3X0,75	50x0,25	4,90	21,6	40,0
3X1,00	32x0,20/19x0,26	5,10	28,8	47,0
3X1,50	30x0,25/19x0,31	5,80	43,2	63,0
3X2,5	50x0,25/37x0,29	7,00	72,0	97,0
3X4,00	56x0,30	8,70	115,2	152,0
4X0,50	16x0,20/19x0,18	4,60	19,2	38,0
4X1,00	24x0,20/19x0,22	5,50	38,4	63,0
4x0,75	24x0,20/19x0,22	5,50	28,6	50,0
4X1,5	30x0,25/19x0,31	5,70	57,6	80,0
4X2,5	50x0,25/37x0,29	7,80	96,0	129,0

Engin
HEATERS & CABLE INDUSTRY
TRADE INC. CO.

ENG-FLPC - 2FE/FL MULTI WIRE CONDUCTOR, MULTI CORE FLUOROPOLYMER(FEP) INSULATED CABLE -90°C/+205°C

Conductor
- Red, tin or nickel-plated electrolytic annealed flexible copper
- Class-2 or Class-5 as per IEC 60228

STANDARDS: VDE 02-207/6

Insulation
- FEP Fluoropolymer

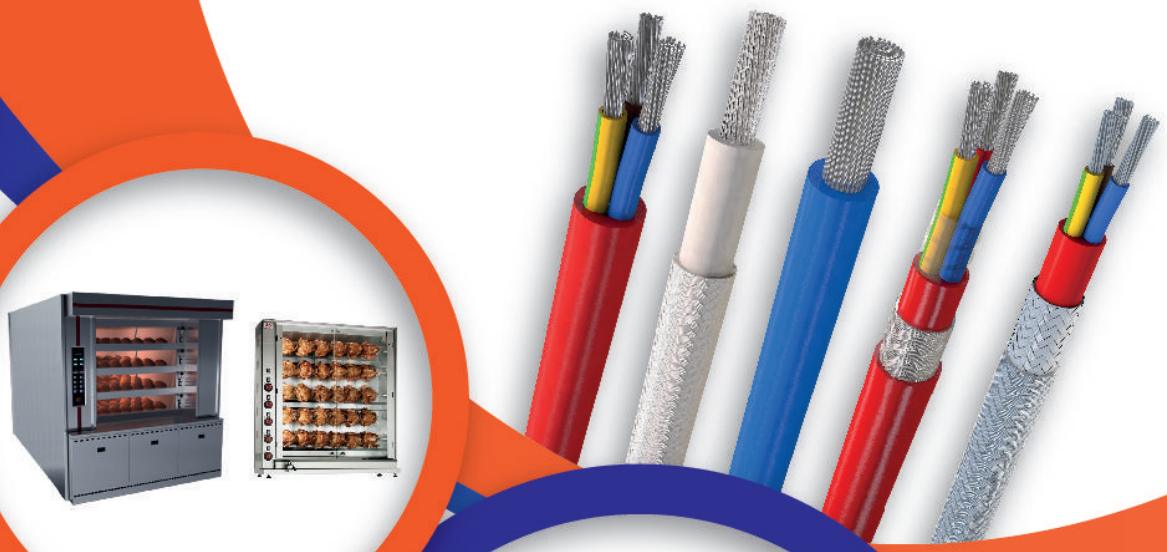
Outer Sheath
- FEP Fluoropolymer

Package
- Rolls, Plastic or Wood Drums

Applications
- Wiring and installation of machines which are subject to chemicals and hot environments
- Wiring of industrial machines working at moisture environments
- Wiring of lighting luminaires

Technic Data
- FEP: 90/+205 °C Continuous Working Temperature
- Resistance to thermal shock
- Resistance to UV and moisture
- Resistance to Ageing
- Working Voltage: 450/750 V
- Test Voltage: 2500 V

Section Area (mm2)	Conductor Cons. (mm)	Outer Diameter (mm)	Copper Weight	Approx. Weight (gr/m)
2X0,50	16x0,20/19x0,18	3,80	9,6	21,0
2X0,75	24x0,20/19x0,22	4,60	14,4	29,0
2X1,00	32x0,20/19x0,26	4,80	19,2	34,0
2X1,50	30x0,25/19x0,31	5,40	28,8	46,0
2X2,5	50x0,25/37x0,29	6,60	48,0	70,0
2X4,00	56x0,30	8,10	76,8	107,0
3X0,50	50x0,25	4,20	14,4	30,0
3X0,75	50x0,25	4,90	21,6	40,0
3X1,00	32x0,20/19x0,26	5,10	28,8	47,0
3X1,50	30x0,25/19x0,31	5,80	43,2	63,0
3X2,5	50x0,25/37x0,29	7,00	72,0	97,0
3X4,00	56x0,30	8,70	115,2	152,0
4X0,50	16x0,20/19x0,18	4,60	19,2	38,0
4X1,00	24x0,20/19x0,22	5,50	38,4	63,0
4x0,75	24x0,20/19x0,22	5,50	28,6	50,0
4X1,5	30x0,25/19x0,31	5,70	57,6	80,0
4X2,5	50x0,25/37x0,29	7,80	96,0	129,0



SILICONE INSULATED CABLES

WHAT IS SILICONE?

Silicone is a synthetic rubber. It is obtained from silicium elements as a result of series of complex reactions.

Advantages of silicone cables;

Silicone rubber is used for cable production when other polymers is not fitting desired requirements in terms of thermal resistance.

Silicone rubber cables have many advantges against other cable types;
Silicone rubber cables
- maintain physical characteristics at low and high temperatures,
- show resistance to harsh weather conditions, radiation, UV light, ozone, and oxygen,
- have high electrical insulation values,
- good thermal resistance is the most determinative feature of Silicone cables,
- can work continuously between - 600C and +1800C. Also, silicone compounds can be formulated for +3000C,
- can show resistance to thermal shocks, working temperature can peak at +4000C.
- Heat transmission coefficient of silicone rubber is quite high, for that reason silicone cables get less warm in comparison with other cable types in terms of current load.

CONTENTS

SINGLE CORE SILICONE INSULATED CABLES

MULTI CORE SILICONE INSULATED CABLES

SIAF-GL MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE BRAIDED SILICONE CABLE

Conductor

- Red or tin-plated electrolytic annealed flexible copper
- Class-5 as per IEC 60228

STANDARDS: HD 22,53/TS 9764

Insulation

- Silicone rubber
- Silicone impregnated glassfibre braid
- Type: EI2 EN 50363-1

Package

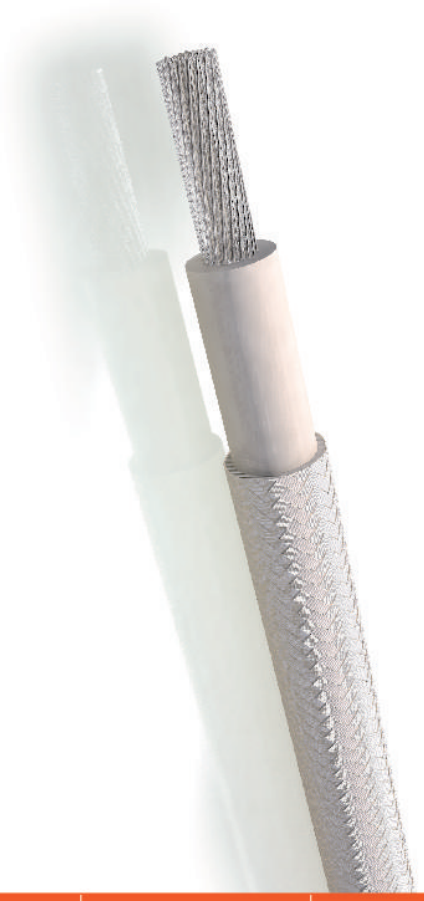
- Rolls, Plastic or Wood Drums

Applications

- Electrical Heating Domestic Appliances
- Heating and Drying Systems
- Plastic, Textile,
- Iron-Steel,
- Glass and Ceramic Industries

Technic Data

- -60/+200 °C Continuous Working Temperature
- +230 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V



Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm ±0,10)	Approx. Weight (gr/m)
0,25	0,21		0,50	2,10	7,3
0,50	0,21	44,10	0,55	2,40	10,8
0,75	0,21	26,70	0,55	2,70	14,5
1,00	0,21	20,00	0,55	2,80	17,10
1,50	0,26	13,70	0,55	3,10	23,1
2,50	0,26	8,21	0,65	3,70	36,1
4,00	0,31	5,09	0,80		57,25
6,00	0,31	3,39	0,80	5.60	85,60
10,00	0,41	1,95	1,00	7.20	140,60
16,00	0,41	1,20	1,2	8.80	220
25,00	0,41	0,795	1,4	10.80	339
35,00	0,41	0,565	1,4	11.70	454
50,00	0,41	0,393	1,6	14.60	644
70,00	0,41				
90,00	0,41				

Engin HEATERS & CABLE INDUSTRY TRADE INC. CO.

SIAF-GB MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE BRAIDED SILICONE CABLE

Conductor

- Red or tin-plated electrolytic annealed flexible copper
- Class-5 as per IEC 60228

STANDARDS: HD 22,53/TS 9764

Insulation

- Silicone rubber
- Silicone impregnated glassfibre braid
- Type: EI2 EN 50363-1

Package

- Rolls, Plastic or Wood Drums

Applications

- Electrical Heating Domestic Appliances
- Heating and Drying Systems
- Plastic, Textile,
- Iron-Steel,
- Glass and Ceramic Industries

Technic Data

- -60/+200 °C Continuous Working Temperature
- +230 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm ±0,10)	Approx. Weight (gr/m)
0,50	0,21	44,10	0,475	2,25	10
0,75	0,21	26,70	0,475	2,55	13,50
1,00	0,21	20,00	0,475	2,65	15,90
1,50	0,26	13,70	0,475	2,95	21,50
2,50	0,26	8,21	0,475	3,35	33,60
4,00	0,31	5,09	0,675	4,35	53,20
6,00	0,31	3,39	0,675	5,35	79,70
10,00	0,41	1,95	0,675	6,55	130,80
16,00	0,41	1,20	0,925	8,25	104,60
25,00	0,41	0,795	1,225	10,45	316
35,00	0,41	0,565	1,225	11,65	421
50,00	0,41	0,393	1,375	13,65	597
70,00	0,41				
90,00	0,41				

SIAF(N2GFAF) MULTI WIRE CONDUCTOR, SINGLE CORE SILICONE INSULATED CABLE

Conductor

- Red or tin-plated electrolytic annealed flexible copper
- Class-5 as per IEC 60228

STANDARDS: HD 22,53/TS 9764

Insulation

- Silicone rubber
- Type: EI2 EN 50363-1

Package

- Rolls, Plastic or Wood Drums

Applications

- Electrical Heating Domestic Appliances
- Heating and Drying Systems
- Plastic, Textile,
- Iron-Steel,
- Glass and Ceramic Industries

Technic Data

- -60/+200 °C Continuous Working Temperature
- +230 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm ±0,10)	Approx. Weight (gr/m)
0,50	16X0,20	40,10	2,10	0,60	8,50
0,75	24X0,20	26,70	2,40	0,60	11,50
1,00	32X0,20	20,00	2,60	0,60	14,20
1,5	30X0,25	13,70	3,00	0,70	19,80
2,5	50X0,25	8,21	3,60	0,80	30,70

H05S-K - MULTI WIRE CONDUCTOR, SINGLE CORE SILICONE INSULATED CABLE

Conductor

- Red or tin-plated electrolytic annealed flexible copper
- Class-5 as per IEC 60228

Insulation

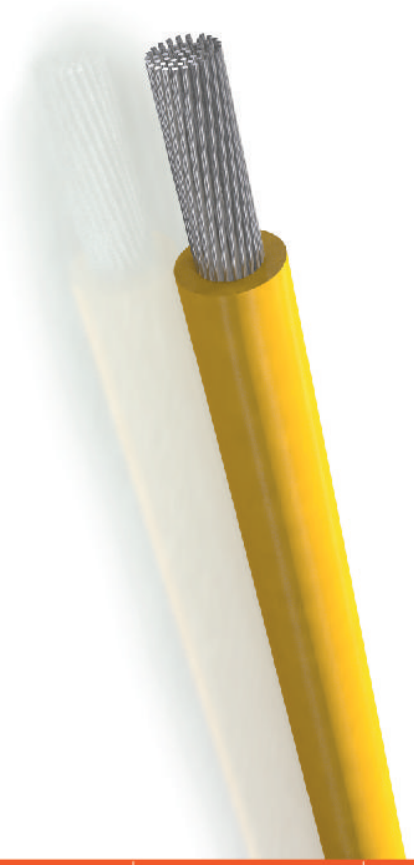
- Silicone rubber
- Type: EI2 EN 50363-1

Package

- Rolls, Plastic or Wood Drums

Applications

- Wiring of electrical heating domestic appliances and wiring of endustrial machines' hot zones



Technic Data

- -60/+180 °C Continuous Working Temperature
- +230 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Standards: HAR HD 22.3

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm ±0,10)		Approx. Weight (gr/m)
				min.	max.	
0,50	16x0,20	39	0,80	2,4	3,1	8,30
0,75	24x0,20	26	0,80	2,6	3,2	11,0
1,00	32x0,20	19,50	0,80	2,7	3,4	14,0
1,5	30x0,25	13,30	0,90	3,2	4,0	19,50
2,5	50x0,25	7,95	1,00	3,8	4,7	30,3

H05SJ-K - MULTI WIRE CONDUCTOR, SINGLE CORE GLASSFIBRE BRAIDED SILICONE CABLE

Conductor

- Red or tin-plated electrolytic annealed flexible copper wire
- Class-5 as per IEC 60228

STANDARDS: HD 22,53/TS 9764

Insulation

- Silicone rubber
- Silicone impregnated glassfibre braid
- Type: EI2 EN 50363-1

Package

- Rolls, Plastic or Wood Drums

Applications

- Electrical Heating Domestic Appliances
- Heating and Drying Systems
- Plastic, Textile,
- Iron-Steel
- Glass and Ceramic Industries

Technic Data

- -60/+200 °C Continuous Working Temperature
- +230 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Insulated Diameter (mm)	Thickness of Insulation (mm)	Outer Diameter (mm)		Approx. Weight (gr/m)
					min.	max.	
0,50	16X0,20	40,1	2,20	0,6	2,60	3,30	12
0,75	24X0,20	26,7	2,40	0,6	2,80	3,50	14,70
1,00	32X0,20	20	2,60	0,6	2,90	3,70	17
1,50	30X0,25	13,7	3,00	0,7	3,40	4,20	23,50
2,50	50X0,25	8,21	3,7	0,8	4,00	5,00	34,50
4,00	56X0,30	5,09	4,20	0,8	4,50	5,60	49,20
6,00	84X0,30	3,39	4,8	0,8	5,20	6,00	73
10,00	80X0,40	1,95	6,8	1,00	7,20	7,80	124
16,00	126X0,40	1,24	8,00	1,00	8,40	9,00	195

H05S-U - MONO WIRE CONDUCTOR, SINGLE CORE SILICONE INSULATED CABLE

Conductor
- Red or Tin-plated electrolytic annealed mono copper
- Class-5 as per IEC 60228

Insulation
- Silikon rubber
- Type: EI2 EN 50363-1

Package
- Rolls, Plastic or Wood Drums

Applications
- Electrical Heating Domestic Appliances
- Lighting Sector/Industry
- Plastic Industry
- Textile Sector

Technic Data
- -60/+180 °C Continuous Working Temperature
- +240 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)		Approx. Weight (gr/m)
				min.	max.	
0,50	1x0,80	36,00	0,80	2,3	2,9	7,70
0,75	1x0,98	24.50	0,80	2,4	3,1	10,7
1,00	1x1,13	18,10	0,80	2,6	3,2	12,8
1,5	1x1,38	12,10	0,90	3,0	3,8	18,00
2,5	1x1,78	7,41	1,00	3,6	4,5	28,9

SIHF - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE CABLE -60°C/+180°C

Conductor
- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

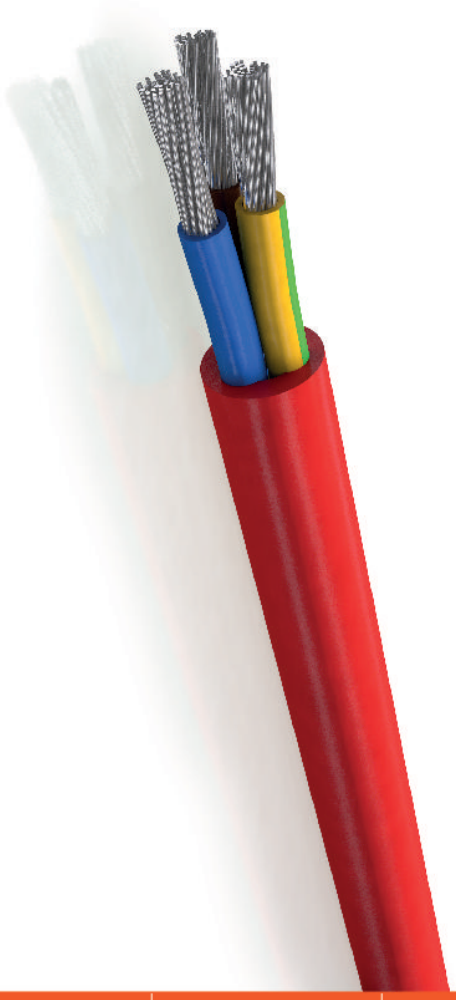
Insulation
- Silicone rubber
- Type: EI2 EN 50363-1

Sheath
- Silicone rubber
- TİP: EI2 EN 50363-1

Package
- Rolls, Plastic or Wood Drums

Applications
- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

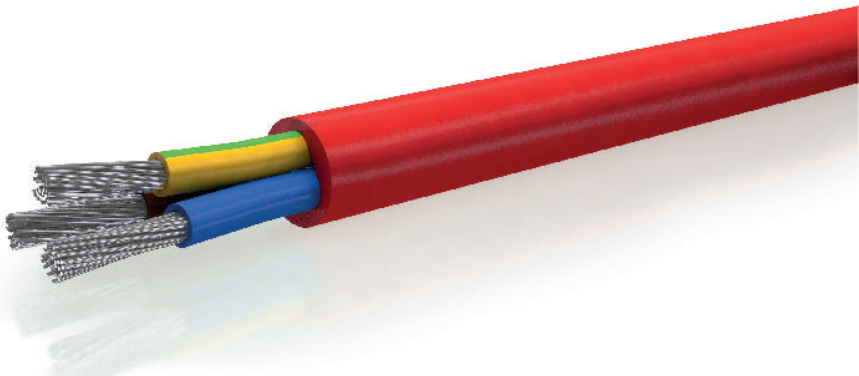
Technic Data
- -60/+180 °C Continuous Working Temperature
- +240 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame Protected againts electro magnetic waves



Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80	5,8	50
2x0,75	0,21	26,0	0,80	6,4	63
2x1,00	0,21	19,50	0,80	6,6	71
2x1,5	0,26	13,3	1,00	7,6	97
2x2,5	0,26	7,98	1,2	9,2	146

SIHF - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE CABLE -60°C/+180°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x4,00	0,31	4,95	1,2	10,8	210
2x6,00	0,31	3,30	1,5	13,4	322
2x10,00	0,41	1,86	1,5	15,8	474
3x0,50	0,21	39,00	0,80	6,1	59
3x0,75	0,21	26,0	0,80	6,8	76
3x1,00	0,21	19,50	1,00	7,4	93
3x1,5	0,26	13,3	1,00	8,00	117
3x2,5	0,26	7,98	1,2	9,7	179
3x4,00	0,31	4,95	1,2	11,5	261
3x6,00	0,31	3,30	1,5	14,2	398
3x10,00	0,41	1,86	1,5	16,8	596
4x0,50	0,21	39,00	0,80	6,7	72
4x0,75	0,21	26,0	1,00	7,80	101
4x1,00	0,21	19,50	1,00	8,10	113
4x1,5	0,26	13,3	1,00	8,80	145
4x2,5	0,26	7,98	1,2	10,60	222
4x4,00	0,31	4,95	1,5	13,20	346
4x6,00	0,31	3,30	1,5	15,60	497
4x10,00	0,41	1,86	1,8	19,10	778
4x16,00	0,41				
5x0,50	0,21	39,00	1,00	1,00	94
5x0,75	0,21	26,0	1,00	1,00	120
5x1,00	0,21	19,50	1,00	1,00	136
5x1,5	0,26	13,3	1,00	1,00	175
5x2,5	0,26	7,98	1,2	1,2	268
5x4,00	0,31	4,95	1,5	1,5	418
5x6,00	0,31	3,30	1,8	1,80	631
6x0,75	0,21	26,0	1,00	1,00	142
6x1,00	0,21	19,50	1,00	1,00	161
6x1,5	0,26	13,3	1,00	1,00	208
6x2,5	0,21	7,98	1,2	1,20	319
7x0,75	0,21	26,0	1,00	1,00	148
7x1,00	0,21	19,50	1,00	1,00	161
7x1,5	0,26	13,3	1,00	1,00	220
7x2,5	0,26	7,98	1,2	1,20	339



SIHF-C - MULTI WIRE CONDUCTOR, MULTI CORE, COPPER BRAIDED SCREEN SILICONE CABLE - HALOGEN FREE -60°C/+180°C

Conductor
- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

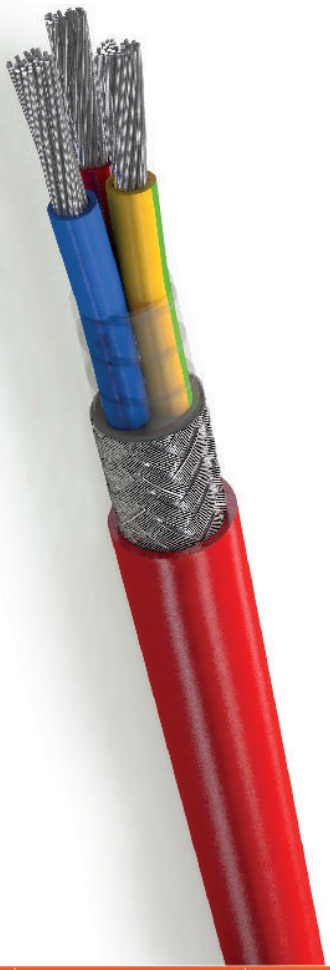
Insulation
- Silicone rubber
- Type: EI2 EN 50363-1

Screen
- Copper Braided Screen

Sheath
- Silicone rubber
- TİP: EI2 EN 50363-1

Package
- Rolls, Plastic or Wood Drums

Applications
- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.



Technic Data
- -60/+180 °C Continuous Working Temperature
- +240 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame
- Protected againts electro magnetic waves

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80	5,8	50
2x0,75	0,2	26,0	0,80	6,4	63

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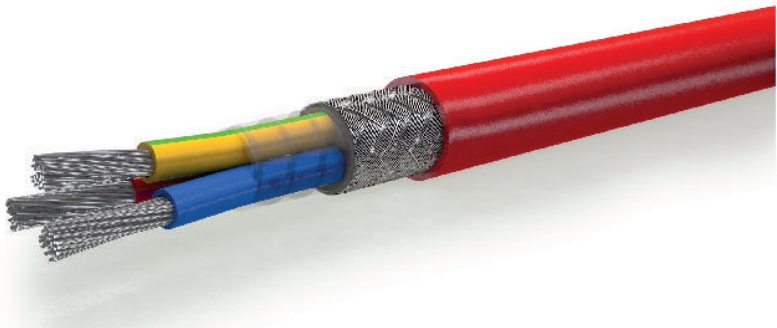
TRADE INC. CO.

SIHF-C - MULTI WIRE CONDUCTOR, MULTI CORE, COPPER BRAIDED SCREEN
SILICONE CABLE - HALOGEN FREE -60°C/+180°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x1,00	0,21	19,50	0,80	7,20	71
2x1,5	0,26	13,3	1,00	8,20	97
2x2,5	0,26	7,98	1,2	9,80	146
2x4,00	0,31	4,95	1,2	11,60	210
2x6,00	0,31	3,30	1,5	14,20	322
2x10,00	0,41	1,86	1,5	16,60	474
3x0,50	0,21	39,00	0,80	6,70	59
3x0,75	0,21	26,0	0,80	7,40	76
3x1,00	0,21	19,50	1,00	8,00	93
3x1,5	0,26	13,3	1,00	8,60	117
3x2,5	0,26	7,98	1,2	10,30	179
3x4,00	0,31	4,95	1,2	12,30	261
3x6,00	0,31	3,30	1,5	15,00	398
3x10,00	0,41	1,86	1,5	17,60	596
4x0,50	0,21	39,00	0,80	7,30	72
4x0,75	0,21	26,0	1,00	8,40	101
4x1,00	0,21	19,50	1,00	8,70	113
4x1,5	0,26	13,3	1,00	9,40	145
4x2,5	0,26	7,98	1,2	11,40	222
4x4,00	0,31	4,95	1,5	14,00	346
4x6,00	0,31	3,30	1,5	16,40	497
4x10,00	0,41	1,86	1,8	19,90	778
4x16,00	0,41				
5x0,50	0,21	39,00	1,00	8,30	94
5x0,75	0,21	26,0	1,00	9,1	120
5x1,00	0,21	19,50	1,00	9,40	136
5x1,5	0,26	13,3	1,00	10,20	175
5x2,5	0,26	7,98	1,2	12,40	268
5x4,00	0,31	4,95	1,5	15,10	418
5x6,00	0,31	3,30	1,8	18,40	631
6x0,75	0,21	26,0	1,00	8,90	142
6x1,00	0,21	19,50	1,00	10,10	161
6x1,5	0,26	13,3	1,00	11,20	208
6x2,5	0,21	7,98	1,2	13,40	319
7x0,75	0,21	26,0	1,00	9,80	148
7x1,00	0,21	19,50	1,00	10,50	161
7x1,5	0,26	13,3	1,00	11,40	220
7x2,5	0,26	7,98	1,2	13,80	339



SIHF-C-SI - MULTI WIRE CONDUCTOR, MULTI CORE, COPPER BRAIDED SCREEN SILICONE CABLE - HALOGEN FREE -60°C/+180°C

Conductor
- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

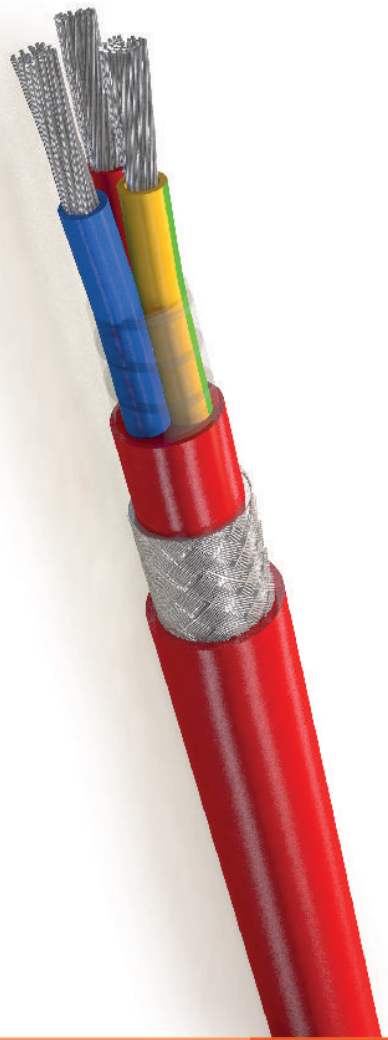
Insulation
- Silicone rubber + Silicone rubber
- Type: EI2 EN 50363-1

Screen
- Copper Braided Screen

Sheath
- Silicone rubber
- TİP: EI2 EN 50363-1

Package
- Rolls, Plastic or Wood Drums

Applications
- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors. This cable also provides a good protection against electromagnetic waves and it is an ideal selection to conduct electric signals without loss thanks to its high screening quality.



Technic Data
- -60/+180 °C Continuous Working Temperature
- +240 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame
- Protected againts electro magnetic waves

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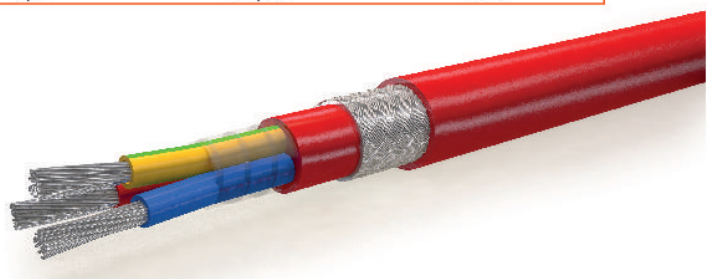
SIHF-C-SI - MULTI WIRE CONDUCTOR, MULTI CORE, COPPER BRAIDED SCREEN
SILICONE CABLE - HALOGEN FREE -60°C/+180°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80	8,00	50
2x0,75	0,21	26,0	0,80	8,6	63
2x1,00	0,21	19,50	0,80	8,9	71
2x1,5	0,26	13,3	1,00	9,9	97
2x2,5	0,26	7,98	1,2	11,05	146
2x4,00	0,31	4,95	1,2	13,6	210
2x6,00	0,31	3,30	1,5	16,30	322
2x10,00	0,41	1,86	1,5	19,20	474
3x0,50	0,21	39,00	0,80	8,30	59
3x0,75	0,21	26,0	0,80	9,00	76
3x1,00	0,21	19,50	1,00	9,60	93
3x1,5	0,26	13,3	1,00	10,30	117
3x2,5	0,26	7,98	1,2	12,20	179
3x4,00	0,31	4,95	1,2	14,30	261
3x6,00	0,31	3,30	1,5	17,20	398
3x10,00	0,41	1,86	1,5	20,2	596
4x0,50	0,21	39,00	0,80	8,90	72
4x0,75	0,21	26,0	1,00	10,01	101
4x1,00	0,21	19,50	1,00	10,3	113
4x1,5	0,26	13,3	1,00	11,30	145
4x2,5	0,26	7,98	1,2	13,50	222
4x4,00	0,31	4,95	1,5	16,20	346
4x6,00	0,31	3,30	1,5	18,80	497
4x10,00	0,41	1,86	1,8		778
4x16,00	0,41				
5x0,50	0,21	39,00	1,00	9,90	94
5x0,75	0,21	26,0	1,00	11,00	120
5x1,00	0,21	19,50	1,00	11,30	136
5x1,5	0,26	13,3	1,00	12,00	175
5x2,5	0,26	7,98	1,2	14,40	268
5x4,00	0,31	4,95	1,5	17,20	418
5x6,00	0,31	3,30	1,8	21,10	631
6x0,75	0,21	26,0	1,00	11,70	142
6x1,00	0,21	19,50	1,00	11,80	161
6x1,5	0,26	13,3	1,00	13,10	208
6x2,5	0,21	7,98	1,2	15,30	319
7x0,75	0,21	26,0	1,00	11,70	148
7x1,00	0,21	19,50	1,00	12,00	161
7x1,5	0,26	13,3	1,00	13,40	220
7x2,5	0,26	7,98	1,2	15,60	339



SIHF-P - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED, GALVANIZED STEEL WIRE BRAIDED CABLE -60°C/+200°C

Conductor

- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

Insulation

- Silicone rubber
- Type: EI2 EN 50363-1

Sheath

- Silicone rubber
- Type: EI2 EN 50363-1

Armour

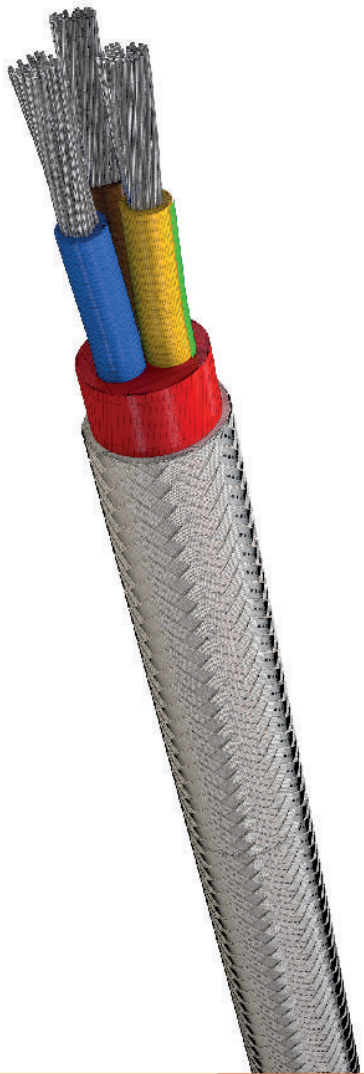
- Galvanized Steel Wire Braid

Package

- Rolls, Plastic or Wood Drums

Applications

- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

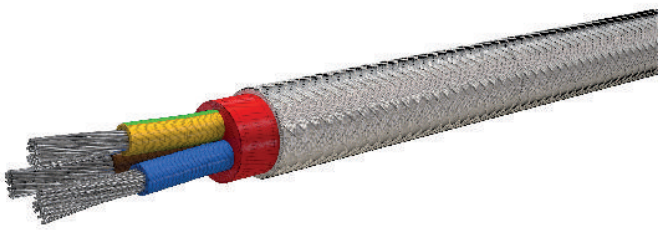


Technic Data

- -60/+200 °C Continuous Working Temperature
- +240 °C Short time Max. Working Temperature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame

SIHF-P - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED, GALVANIZED STEEL WIRE BRAIDED CABLE -60°C/+200°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80	6,55	50
2x0,75	0,21	26,0	0,80	6,80	63
2x1,00	0,21	19,50	0,80	7,20	71
2x1,5	0,26	13,3	1,00	7,82	97
2x2,5	0,26	7,98	1,2	9,25	146
2x4,00	0,31	4,95	1,2	11,25	210
2x6,00	0,31	3,30	1,5		322
2x10,00	0,41	1,86	1,5		474
3x0,50	0,21	39,00	0,80	6,85	59
3x0,75	0,21	26,0	0,80	7,30	76
3x1,00	0,21	19,50	1,00	7,60	93
3x1,5	0,26	13,3	1,00	8,30	117
3x2,5	0,26	7,98	1,2	9,90	179
3x4,00	0,31	4,95	1,2	12,00	261
3x6,00	0,31	3,30	1,5	14,60	398
3x10,00	0,41	1,86	1,5	19,50	596
4x0,50	0,21	39,00	0,80	7,40	72
4x0,75	0,21	26,0	1,00	8,00	101
4x1,00	0,21	19,50	1,00	8,20	113
4x1,5	0,26	13,3	1,00	9,30	145
4x2,5	0,26	7,98	1,2	10,70	222
4x4,00	0,31	4,95	1,5	14,00	346
4x6,00	0,31	3,30	1,5	16,50	497
4x10,00	0,41	1,86	1,8	22,80	778
4x16,00	0,41			27,00	
5x0,50	0,21	39,00	1,00	8,00	94
5x0,75	0,21	26,0	1,00	8,80	120
5x1,00	0,21	19,50	1,00	9,30	136
5x1,5	0,26	13,3	1,00	10,30	175
5x2,5	0,26	7,98	1,2	12,10	268
5x4,00	0,31	4,95	1,5	15,30	418
5x6,00	0,31	3,30	1,8	19,00	631
6x0,75	0,21	26,0	1,00	9,20	142
6x1,00	0,21	19,50	1,00	9,70	161
6x1,5	0,26	13,3	1,00	10,70	208
6x2,5	0,21	7,98	1,2	12,50	319
7x0,75	0,21	26,0	1,00	9,70	148
7x1,00	0,21	19,50	1,00	10,20	161
7x1,5	0,26	13,3	1,00	11,10	220
7x2,5	0,26	7,98	1,2	13,20	339



SIHF-GL - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATED GLASSFIBRE BRAIDED CABLE -60°C/+200°C

Conductor

- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

İzolasyon

- Silicone rubber
- TİP: EI2 EN 50363-1

Sheath

- Silicone rubber
- Type: EI2 EN 50363-1

Braid

- Glass Fibre Braid

Package

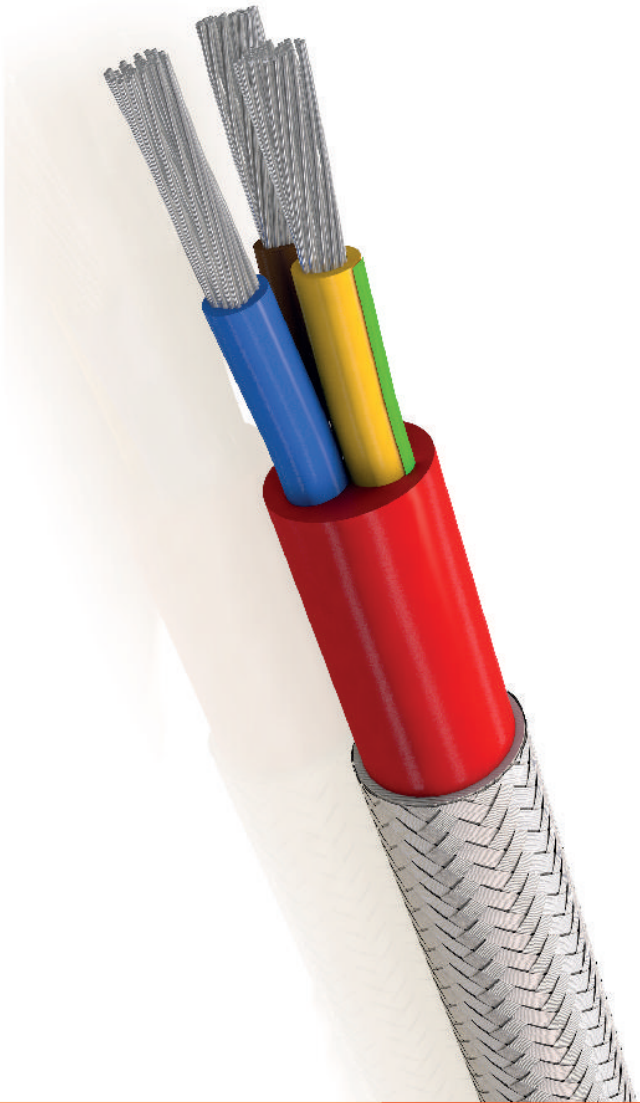
- Rolls, Plastic or Wood Drums

Applications

- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

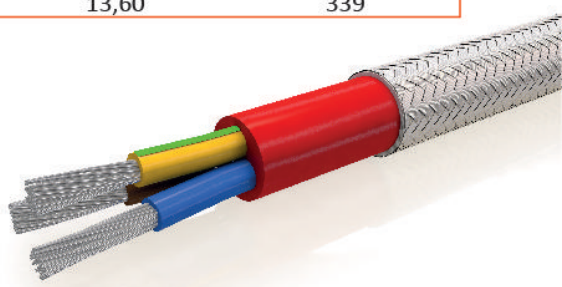
Technic Data

- -60/+200 °C Continuous Working Temperature
- +240 °C Short time Max. Working Temperature
- - Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame



SIHF-GL - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATED GLASSFIBRE BRAIDED CABLE -60°C/+200°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80	6,60	50
2x0,75	0,21	26,0	0,80	7,20	63
2x1,00	0,21	19,50	0,80	7,40	71
2x1,5	0,26	13,3	1,00	8,40	97
2x2,5	0,26	7,98	1,2	10,00	146
2x4,00	0,31	4,95	1,2	11,60	210
2x6,00	0,31	3,30	1,5	14,30	322
2x10,00	0,41	1,86	1,5	16,70	474
3x0,50	0,21	39,00	0,80	7,50	59
3x0,75	0,21	26,0	0,80	7,70	76
3x1,00	0,21	19,50	1,00	8,20	93
3x1,5	0,26	13,3	1,00	8,80	117
3x2,5	0,26	7,98	1,2	10,60	179
3x4,00	0,31	4,95	1,2	12,40	261
3x6,00	0,31	3,30	1,5	15,10	398
3x10,00	0,41	1,86	1,5	17,60	596
4x0,50	0,21	39,00	0,80	7,50	72
4x0,75	0,21	26,0	1,00	8,60	101
4x1,00	0,21	19,50	1,00	8,90	113
4x1,5	0,26	13,3	1,00	9,60	145
4x2,5	0,26	7,98	1,2	11,50	222
4x4,00	0,31	4,95	1,5	14,00	346
4x6,00	0,31	3,30	1,5	16,40	497
4x10,00	0,41	1,86	1,8	20,00	778
4x16,00	0,41				
5x0,50	0,21	39,00	1,00	8,50	94
5x0,75	0,21	26,0	1,00	9,30	120
5x1,00	0,21	19,50	1,00	9,70	136
5x1,5	0,26	13,3	1,00	10,40	175
5x2,5	0,26	7,98	1,2	12,40	268
5x4,00	0,31	4,95	1,5	15,20	418
5x6,00	0,31	3,30	1,8	18,40	631
6x0,75	0,21	26,0	1,00	9,80	142
6x1,00	0,21	19,50	1,00	10,10	161
6x1,5	0,26	13,3	1,00	11,00	208
6x2,5	0,21	7,98	1,2	13,20	319
7x0,75	0,21	26,0	1,00	10,20	148
7x1,00	0,21	19,50	1,00	10,50	161
7x1,5	0,26	13,3	1,00	11,50	220
7x2,5	0,26	7,98	1,2	13,60	339



SIHF-GL/P - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED, GLASSFIBRE BRAIDED + GALVANIZED STEEL WIRE BRAIDED CABLE -60°C/+200°C

Conductor

- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

Insulation

- Silicone rubber
- Type: EI2 EN 50363-1

Sheath

- Silicone rubber + Glassfibre braid
- Type: EI2 EN 50363-1

Armour

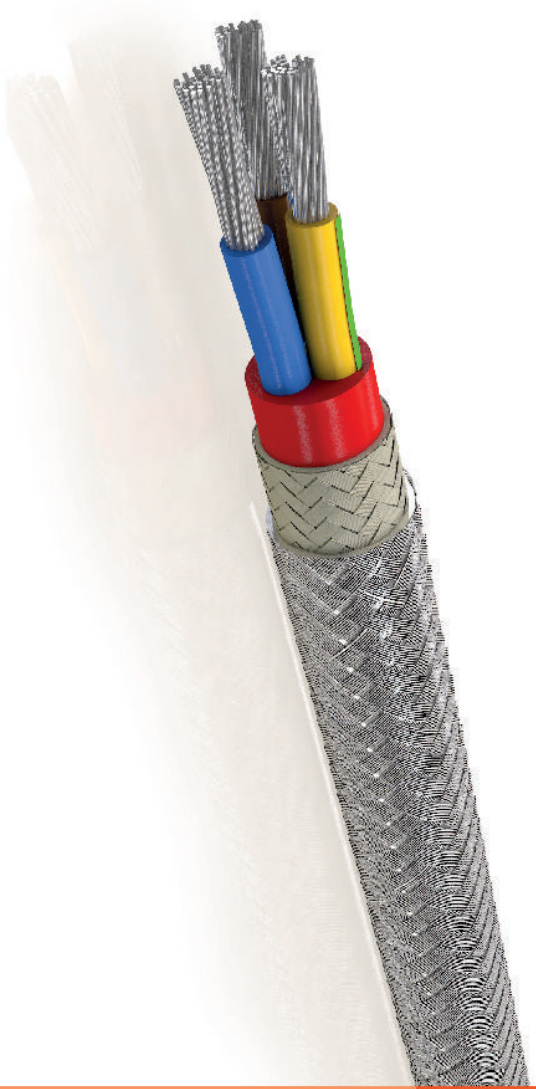
- Galvanized Steel Wire Braid(Standart) or Flexible Copper Braid(Optional)

Package

- Rolls, Plastic or Wood Drums

Applications

- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

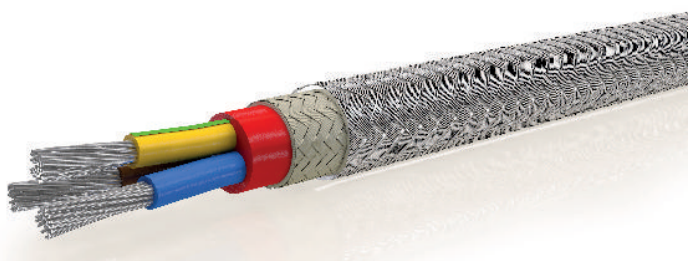


Technic Data

- -60/+200 °C Continuous Working Temperature
- +240 °C Short time Max. Working Temperature
- - Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame
- Protected against electromagnetic waves

SIHF-GL/P - MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED, GLASSFIBRE BRAIDED + GALVANIZED STEEL WIRE BRAIDED CABLE -60°C/+200°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Outer Diameter (mm)	Approx. Weight (gr/m)
2x0,50	0,21	39,00	0,80		50
2x0,75	0,21	26,0	0,80	7,9	63
2x1,00	0,21	19,50	0,80	8,1	71
2x1,5	0,26	13,3	1,00	9,00	97
2x2,5	0,26	7,98	1,2	10,60	146
2x4,00	0,31	4,95	1,2	12,30	210
2x6,00	0,31	3,30	1,5	15,00	322
2x10,00	0,41	1,86	1,5		474
3x0,50	0,21	39,00	0,80		59
3x0,75	0,21	26,0	0,80	8,30	76
3x1,00	0,21	19,50	1,00	9,00	93
3x1,5	0,26	13,3	1,00	9,30	117
3x2,5	0,26	7,98	1,2	11,20	179
3x4,00	0,31	4,95	1,2	13,00	261
3x6,00	0,31	3,30	1,5	16,00	398
3x10,00	0,41	1,86	1,5		596
4x0,50	0,21	39,00	0,80		72
4x0,75	0,21	26,0	1,00	9,20	101
4x1,00	0,21	19,50	1,00	9,40	113
4x1,5	0,26	13,3	1,00	10,30	145
4x2,5	0,26	7,98	1,2	12,10	222
4x4,00	0,31	4,95	1,5	15,00	346
4x6,00	0,31	3,30	1,5	18,00	497
4x10,00	0,41	1,86	1,8		778
4x16,00	0,41				
5x0,50	0,21	39,00	1,00		94
5x0,75	0,21	26,0	1,00	10,00	120
5x1,00	0,21	19,50	1,00	10,30	136
5x1,5	0,26	13,3	1,00	11,00	175
5x2,5	0,26	7,98	1,2	13,30	268
5x4,00	0,31	4,95	1,5	16,00	418
5x6,00	0,31	3,30	1,8	19,30	631
6x0,75	0,21	26,0	1,00		142
6x1,00	0,21	19,50	1,00		161
6x1,5	0,26	13,3	1,00		208
6x2,5	0,21	7,98	1,2		319
7x0,75	0,21	26,0	1,00	10,70	148
7x1,00	0,21	19,50	1,00	11,20	161
7x1,5	0,26	13,3	1,00	12,40	220
7x2,5	0,26	7,98	1,2	15,40	339



H05SS - F MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED CABLE -60°C/+180°C

Conductor

-Tin-plated or Red Electrolytic Annealed Flexible Copper
-Class-5 as per IEC 60228

Insulation

- Silicone rubber
- Type: EI2 EN 50363-1

Package

Rolls, Plastic or Wood Drums

Applications

- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

Technic Data

- -60/+180°C Continuous Working Temperature
- +220 °C Short time Max. Working Temperature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Thickness of Outer Insulation (mm)	Outer Diameter. (mm) Max.	Min.
2x0,75	0,21	26,0	0,60	0,80	7,40	5,70
2x1,00	0,21	19,50	0,60	0,90	8,00	6,10
2x1,5	0,26	13,3	0,80	1,00	9,80	7,60
2x2,5	0,26	7,98	0,90	1,10	11,60	9,00
2x4,00	0,31	4,95	1,00			

H05SS - F MULTI WIRE CONDUCTOR, MULTI CORE SILICONE INSULATED AND SHEATHED CABLE -60°C/+180°C

Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Thickness of Outer Insulation (mm)	Outer Diameter (mm)	
					Max.	Min.
3x0,75	0,21	26,0	0,60	0,90	8,1	6,2
3x1,00	0,21	19,50	0,60	0,90	8,5	6,5
3x1,5	0,26	13,3	0,80	1,00	10,40	8,00
3x2,5	0,26	7,98	0,90	1,10	12,40	9,60
3x4,00	0,31	4,95	1,00	1,20	14,30	11,30
3x6,00	0,31	3,30	1,00	1,40	16,30	12,80
4x0,75	0,21	26,0	0,60	0,90	8,8	6,8
4x1,00	0,21	19,50	0,60	0,90	9,3	7,1
4x1,5	0,26	13,3	0,80	1,10	11,6	9,00
4x2,5	0,26	7,98	0,90	1,20	13,80	10,70
4x4,00	0,31	4,95	1,00	1,30	16,2	12,7
4x6,00	0,31	3,30	1,00	1,50	18,1	14,2
5x0,75	0,21	26,0	0,60	1,00	9,9	7,6
5x1,00	0,21	19,50	0,60	1,00	10,3	8,00
5x1,5	0,26	13,3	0,80	1,10	12,7	9,8
5x2,5	0,26	7,98	0,90	1,30	15,3	11,9

H05SST-F MULTI WIRE CONDUCTOR, MULTI CORE SLICONE INSULATED GLASSFIBRE BRAIDED CABLE +180°C

Conductor

- Tin-plated or Red Electrolytic Annealed Flexible Copper
- Class-5 as per IEC 60228

Insulation

- Silicone rubber + Silicone rubber
- Type: EI2 EN 50363-1

Outer Insulation

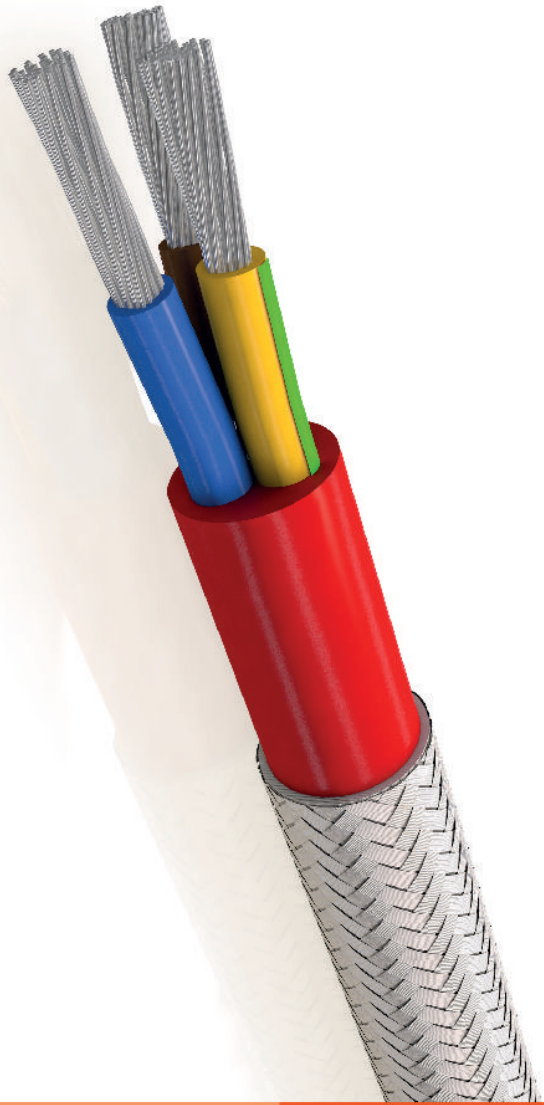
- Glassfibre Braid

Package

- Rolls, Plastic or Wood Drums

Applications

- Silicone Cables are used as installation or energy supply cables near hot zones of production machines/lines in many sectors due to -60/+180 °C continuous working and 220 °C short time maximum working temperature. Iron-steel industries, foundries, cement, glass and ceramic factories are main application areas from different sectors.

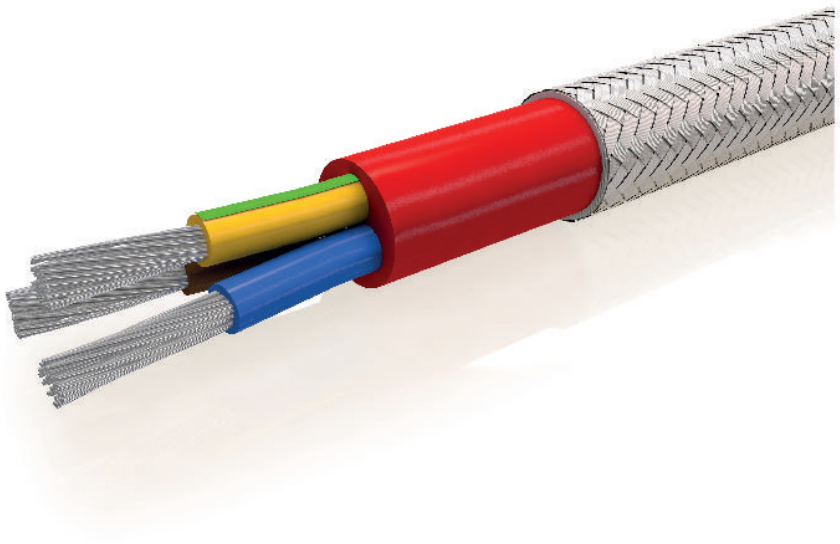


Technic Data

- -60/+180 °C Continuous Working Temperature
- +220 °C Short time Max. Working Tempreature
- Resistance to sudden temperature change
- Resistance to UV
- Resistance to Ageing
- Working Voltage: 300/500 V
- Test Voltage: 2000 V
- Resistance to mineral oils, animal and vegetable fats, diluted acids, salt dissolutions, oxygen and ozone
- Halogen Free and Does not spread flame

H05SST-F MULTI WIRE CONDUCTOR, MULTI CORE SLICONE INSULATED GLASSFIBRE BRAIDED CABLE -60°C/+180°C

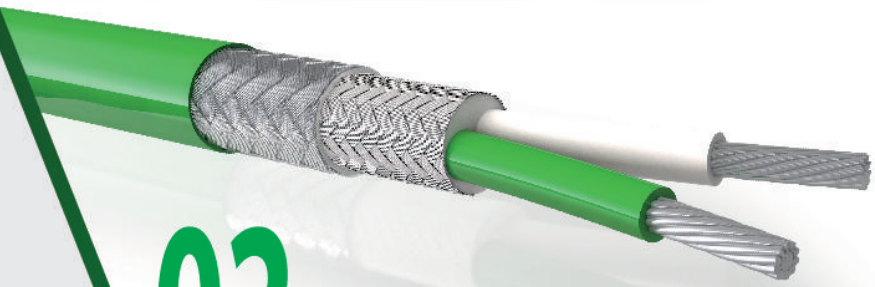
Nominal Section (mm2)	Max. Conductor Diameter (mm)	Max. Conductor Resistance 20°C Ω/KM	Thickness of Insulation (mm)	Thickness of Outer Insulation (mm)	Approx. Weight (gr/m)	
					Min.	Max.
2x0,75	0,21	26,0	0,60	0,80	6,70	8,40
2x1,00	0,21	19,50	0,60	0,90	7,10	9,10
2x1,5	0,26	13,3	0,80	1,00	8,60	10,80
2x2,5	0,26	7,98	0,90	1,10	10,00	12,60
2x4,00	0,31	4,95	1,00			
3x0,75	0,21	26,0	0,60	0,90	7,20	9,10
3x1,00	0,21	19,50	0,60	0,90	7,5	9,5
3x1,5	0,26	13,3	0,80	1,00	9,00	11,40
3x2,5	0,26	7,98	0,90	1,10	10,60	13,40
3x4,00	0,31	4,95	1,00	1,20	12,30	15,50
3x6,00	0,31	3,30	1,00	1,40	13,80	17,30
4x0,75	0,21	26,0	0,60	0,90	7,80	9,80
4x1,00	0,21	19,50	0,60	0,90	8,10	10,30
4x1,5	0,26	13,3	0,80	1,10	10,00	12,60
4x2,5	0,26	7,98	0,90	1,20	11,70	14,80
4x4,00	0,31	4,95	1,00	1,30	13,70	17,20
4x6,00	0,31	3,30	1,00	1,50	15,20	19,10
5x0,75	0,21	26,0	0,60	1,00	8,60	10,90
5x1,00	0,21	19,50	0,60	1,00	9,00	11,30
5x1,5	0,26	13,3	0,80	1,10	10,80	13,70
5x2,5	0,26	7,98	0,90	1,30	12,90	16,30



TEMPERATURE MEASUREMENT AND CONTROL CABLES

01

THERMOCOUPLE CABLES



02

EXTENSION AND COMPENSATION CABLES

03

PT100 CABLES

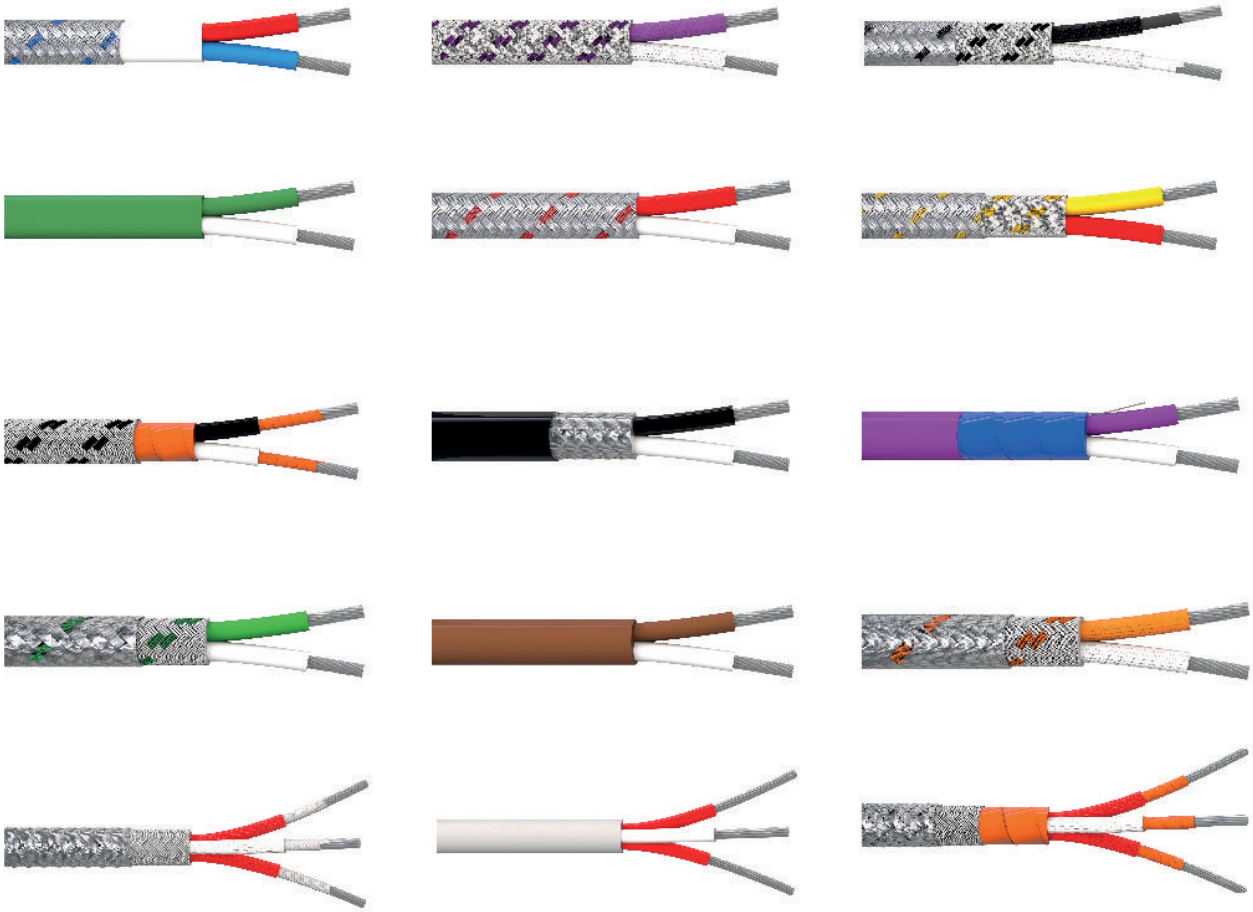
Engin®
HEATERS & CABLE INDUSTRY TRADE INC. CO.

CONTENTS

TEMPERATURE MEASUREMENT AND CONTROL CABLES

General Informations;

In our day, heat control systems is one of the most important topics of control technologies.
Heat and temperature are important parameters that can affect physical features. It is one of the most important factors in production processes. Thus, it is essential to measure the temperatures with high precision.
There are several methods to measure heat/temperature. In these methods, thermocouple sensor is the most commonly used equipment.
PT10 - PT100 -PTC - NTC sensors are some other utilities than can be required other than thermocouples under different circumstances.
Main concern of our firm is cables that link up the sensors and measurement devices. In this catalogue, you can find technical details about these cables. Users can make their cable choices according to measurement sensors(TC - PT100 - PTC - NTC) and working environment temperature by utilizing from this catalogue. Correct cable choice is one of the most important issues of heat control for precise measurements.These cables,that we are producing, are listed under different tables related to their types and insulation classes.



THERMOCOUPLE CABLES

What is a Thermocouple?
General Informations;

Thermocouple is a temperature measurement component that is created by welding two different alloy wires. The welding point is named as hot junction and the other two lead is called as cold junctions. The cold junction is also called as reference point.

A thermocouple produces a temperature-dependent voltage as a result of the thermoelectric effect, and this voltage can be interpreted to measure temperature.(EMF)

Since, the thermoelectric effect occurs as a result of potential difference between cold and hot junction, the ambient temperature of cold junction is very important. On the condition that temperature of hot junction is fixed, if the temperature of cold junction changes, different temperature values will be read from the measurement device. Therefore, in order to provide standardisation for thermocouple cables, milivolt values(equivelant of measured temperature) are obtained by fixing the temperature at 0°C for cold junction.

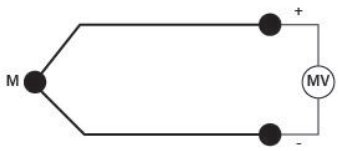


Figure 1

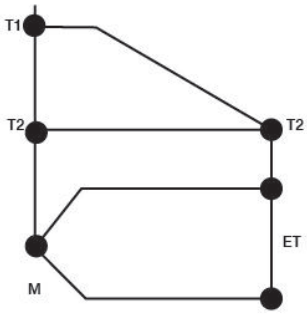


Figure 2

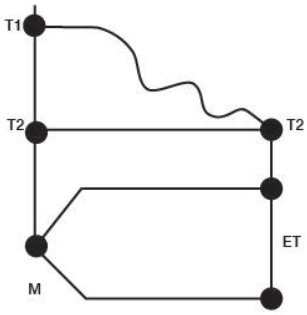


Figure 3

Thermocouple Tolerances

- As it is in EN 60584 - 2 and IEC 584 - 2 standards, tolerance will be determined as °C or %, as showed in the table at the next page. Higher one of these two values will be chosen as the tolerance.

M : Hot Junction
ET: Cold Junction
T2: Measured Temperature value when cold junction is fixed at 0°C
T1: Measured Temperature value when cold junction is different from 0°C

As it is seen on Figure 3, if the temperature of cold junction is not fixed, measured temperature value will differ.

J	Iron / Copper - Nickel J veya Iron / Constantan* veya Iron / Advance
K	Nickel - Chromium / Alloyed Nickel veya Chromel * / Alumel*
T	Copper / Copper - Nickel T veya Copper / Constantan* veya Copper / Advance
E	Nickel-chromium/Copper-Nickel E veya Chromel7Constantan veya chromel*/Advance
N	Nickel - Chromium - Silicium / Nickel - Silicium veya Nicrosil * / Nisil *
R	Platinum %13 Rhodium / Platinum
S	Platinum %10 Rhodium / Platinum
B	Platinum %30 Rhodium / Platinum 6% Rhodium

THERMOCOUPLE CABLES

What is a Thermocouple Cable?
General Informations;

Yet, thermocouple is made out of two metal or alloy wire, it can not be used as bare wire. Thermocouples are used in certain special sheath in order to protect from several mechanic impact by considering physical and chemical features. Covering these bare wires by using different insulation material as required creates thermocouple cables. Thermocouple cables have many different types which are classed as their wire and insulations types. These varieties are placed on main products table. Products on the table can be manufactured as ordered as multiple pers or multiple cores

THERMOCOUPLE EMF TOLERANCES
IEC 584-2 (DIN EN 60584-2; BS EN 60584-2; JIS C 1602)

Thermothal P ™ (KP)/Thermothal N (KN) (Type K)	from -40 to 1000	± 1.5°C or ± 0.40 %	-	-
Thermothal P ™ (EP)/Cuprothal (EN) (Type K)	from -40 to 800	± 1.5°C or ± 0.40 %	-	-
Copper / Cuprothal (TN) (Type E)	from -40 to 350	± 0.5°C or ± 0.40 %	-	-
Iron (JP) / Cuprothal (JN) (Type J)	from -40 to 350	± 0.5°C or ± 0.40 %	-	-
Nicrosil (NP)/Nisil (NN) (Type N)	from -40 to 1000	± 1.5°C or ± 0.40 %	-	-
Thermothal P (KP)/Thermothal N (EN) (Type K)	from -40 to 1200	-	± 2.5°C or ± 0.75 %	-
Thermothal P (EP)/Cuprothal (EN) (Type E)	from -40 to 900	-	± 2.5°C or ± 0.75 %	-
Copper / Cuprothal (TN) (Type T)	from -40 to 350	-	± 1°C or ± 0.75 %	-
Iron (JP) / Cuprothal (JN) (Type J)	from -40 to 750	-	± 2.5°C or ± 0.75 %	-
Nicrosil (NP)/Nisil (NN) (Type N)	from -40 to 1200	-	± 2.5°C or ± 0.75 %	-
Thermothal P (KP)/Thermothal N (KN) (Type K)	from -40 to +40	-	-	± 2.5°C or ± 1.5 %
Thermothal P (KP)/Thermothal N (KN) (Type K)	from -40 to +40	-	-	± 2.5°C or ± 1.5 %
Thermothal P (EP)/Cuprothal (EN) (Type E)	from -40 to +40	-	-	± 2.5°C or ± 1.5 %
Copper / Cuprothal (TN) (Type T)	from -40 to +40	-	-	± 1°C or ± 1.5 %
Nicrosil (NP)/Nisil (NN) (Type N)	from -200 to +40	-	-	± 2.5°C or ± 1.5 %

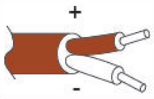
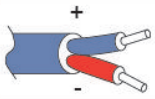
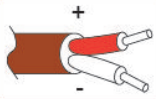
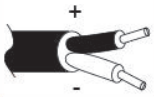
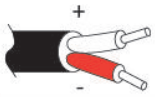
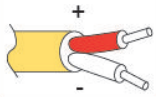
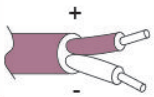
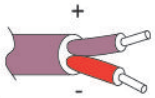
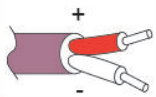
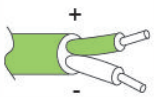
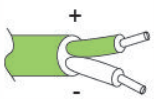
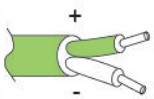
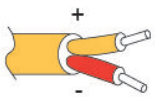
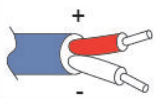
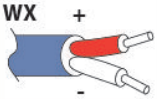
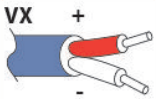
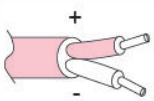
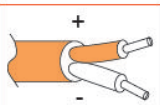
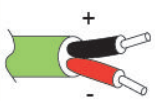
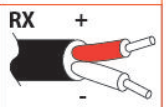
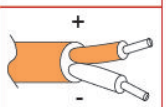
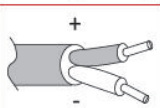
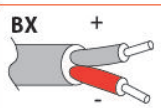
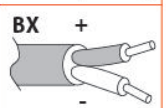
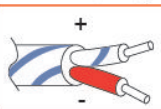
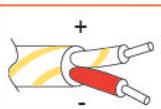
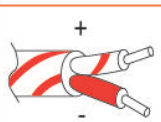
THERMOCOUPLE CABLES
MAIN PRODUCTS

	T, J, E, K, N	2PV 2FE 2PF	PVC 105°C FEP PFA	PVC 105°C FEP PFA	– 30 to + 105°C – 90 to + 205°C – 90 to + 260 °C
	T, J, E, K, N	2GB 2G1B	Glassfibre High Temp. Resist. Glassfibre	Glassfibre High Temp. Resist. Glassfibre	- 60 to + 400 °C - 60 to + 600 °C
	T, J, E, K, N	2MB	Mineral Fibre	Mineral Fibre	- 60 to + 600 °C
	E, K, N	2SI 2CI	Silica Fibre Ceramic Fibre	Silica Fibre Ceramic Fibre	0 to + 1100 °C 0 to + 1300 °C
	T, J, E, K, N	2PL	Polyamide	Polyamide	- 90 to + 350 °C
	T, J, E, K, N	PT PGT PBT FT FGT FBT PFT	PVC 105 °C PVC 105 °C PVC 105 °C FEP FEP FEP PFA	Stainless Steel Wire Braid Galvanized Steel Wire Braid Tinned Copper Wire Braid Stainless Steel Wire Braid Galvanized Steel Wire Braid Tinned Copper Wire Braid Stainless Steel Wire Braid	- 30 to + 105 °C - 90 to + 205 °C - 90 to + 260 °C
	T, J, E, K, N	2P/GT 2P/CT 2FE/GT 2FE/CT 2PF/GT 2PF/CT	PVC 105 °C PVC 105 °C FEP FEP PFA PFA	PVC 105°C/Galvanized Steel Wire Braid PVC 105°C/Tinned Copper Wire Braid FEP/ Stainless Steel Wire Braid FEP/Tinned Copper Wire Braid PFA/Galvanized Steel Wire Braid PFA/Tinned Copper Wire Braid	- 30 to + 105°C - 30 to + 105°C - 90 to + 205 °C - 90 to + 205 °C - 90 to + 260 °C - 90 to + 260 °C
	T, J, E, K, N	2GB/GT 2GB/CT	Glassfibre Glassfibre	Glassfibre/Galvanized Steel Wire Braid Glassfibre/Tinned Copper Wire Braid	- 60 to + 350 °C - 60 to + 200 °C
	T, J, E, K, N	2GB/ST 2GB/GT 2GB/CT 2G1B/ST 2MB/ST	Cam elyaf Cam elyaf Cam elyaf High Temp. Resist. Glassfibre Mineral fibre	Glassfibre/Stainless Steel Wire Braid Glassfibre/Galvanized Steel Wire Braid Glassfibre/Tinned Copper Wire Braid High Temp. Resist. Glassfibre/Stainless Steel Wire Braid Mineral fibre/Stainless Steel Wire Braid	- 60 to + 350 °C - 60 to + 350 °C - 60 to + 200 °C - 60 to + 600 °C - 60 to + 400 °C

TABLE: 1

Current Definitions and Colour Codes

Thermocouples and Thermocouple Cables

SYMBOLS	TYPE OF METALS +	TYPE OF METALS -	Normal Working Temp. °C	E.m.f at 100°C in mv	IEC 584-3 (1989)	ANSI / MC 96-1 (5) (1964)	JIS C 1610 (1995)
T	Copper	Copper-Nickel T	-200°C to +350°C	4.277			
J	Iron	Copper-Nickel J	-40°C to +750°C	5.268			
E	Nickel Chrome	Copper-Nickel E	-150°C to +800°C	6.317			
K	Nickel Chrome	Alloy Nickel	-150°C to +1100°C	4.095	  		 WX  VX 
N	Nickel Chrome Silicium	Nickel Silicium	-150°C to +1100°C	2.774			
R	Platin Rhodium %13	Platin	0°C to +1600°C	0.647		SX 	RX 
S	Platin Rhodium %10	Platin	0°C to +1550°C	0.645			SX 
B	Platin Rhodium %30	Platin Rhodium %6	-600°C to +1700°C	0.033		BX 	BX 
W	Tungsten	Tungsten Rhenium 26%	0°C to +2600°C	(to 1000°C) 14.500			
W3	Tungsten Rhenium 3%	Tungsten Rhenium 25%	0°C to +2100°C	(to 1000°C) 18.257			
W5	Tungsten Rhenium 5%	Tungsten Rhenium 26%	0°C to +2600°C	(to 1000°C) 18.226			

General Informations;

Connection and communication between thermocouples and devices are provided with cables that are compatible with thermocouple conductors. These cables are called as extension and compensation cables.

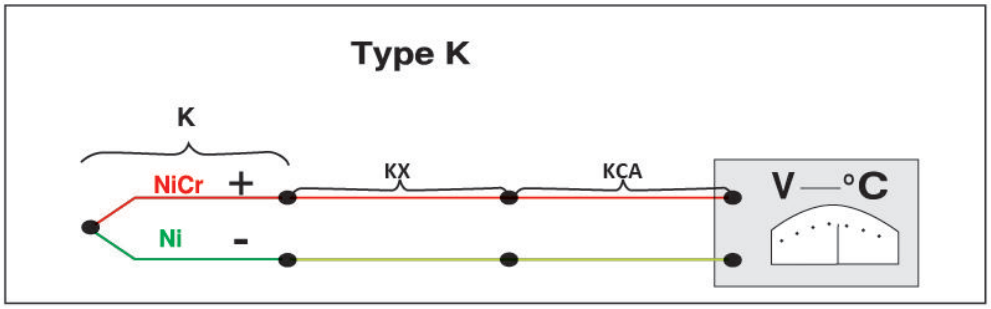
Extension Cables;

Wires(conductors) of extension cables are used same as thermocouple's alloy conductor, and they are stated with letter X at the end like JX, KX etc.

Compensation Cables;

Conductors of these cables does not need to be same as thermocouple's alloy wire, however it has to be made out of conductors that have the capacity of carrying milivoltages(EMF). These cables are symbolized with C letter at the end of thermocouple code like KCA, KCB etc.

EXTENSION AND COMPENSATION CABLES



Extension	JX	Iron Copper Nickel J	Jx1: ±85 µV(±1.5°C)	Jx2: ±140µV(±2.5°C)	-25 °C +200°C	500°C
	TX	Iron Copper Nickel T	Tx1: ±30 µV(±0.5°C)	Tx2: ±60µV(±1.0°C)	-25 °C +100°C	300°C
	EX	Nickel Chromium / Copper Nickel E	Ex1:±120µV(±1.5°C)	Ex2:±200µV(±2.5°C)	-25 °C +200°C	500°C
	KX	Nickel Chromium / Nickel Alloy	Kx1: ±60 µV(±1.5°C)	Kx2:±100µV(±2.5°C)	-25 °C +200°C	900°C
	NX	Nickel Chromium Silicium / Silicium	Nx1: ±60 µV(±1.5°C)	Nx2:±100µV(±2.5°C)	-25 °C +200°C	900°C

Compensation	KCA	Iron / Copper Nickel	-	±100µV(±2.5°C)	0 °C +150°C	900°C
	KCB	Copper / Copper Nickel	-	±100µV(±2.5°C)	0 °C +100°C	900°C
	NC	Nickel Chromium Silicium / Silicium Nickel	-	±100µV(±2.5°C)	0 °C +150°C	900°C
	RCA	Copper / Copper Nickel R	-	±30µV(±2.5°C)	0 °C +100°C	1000°C
	RCB	Copper / Copper Nickel R	-	±60µV(±5.0°C)	0 °C +200°C	1000°C
	SCA	Copper / Copper Nickel S	-	±30µV(±2.5°C)	0 °C +100°C	1000°C
	SCB	Copper / Copper Nickel S	-	±60µV(±5.0°C)	0 °C +200°C	1000°C
	BC	Copper / Copper Alloy	-	±40µV(±2.5°C)	0 °C +150°C	1400°C

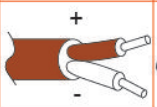
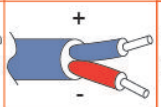
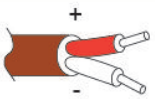
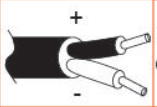
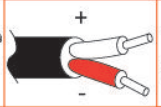
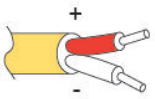
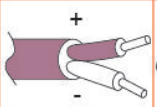
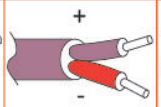
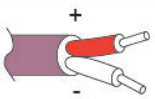
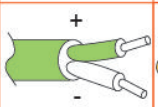
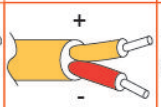
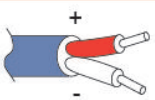
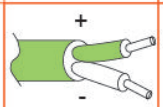
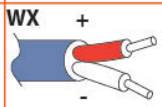
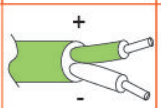
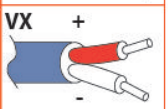
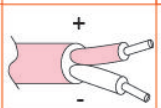
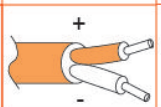
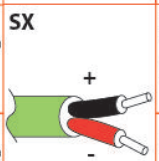
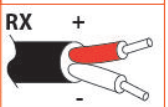
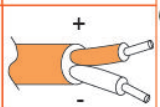
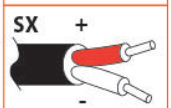
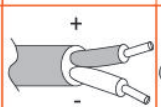
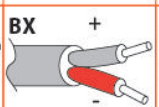
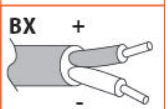
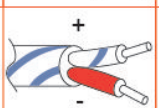
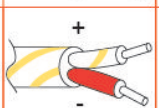
EXTENSION AND COMPENSATION CABLES
MAIN PRODUCTS

	All Types	2P/R 2S/R	Round Round	PVC °105C Silicone	PVC °105C Silicone	– 30 to + 105°C – 60 to + 200°C
	All Types	PCTB/R PGTP/R	Round Round	PVC °105C Silicone	Screen (tinned copper braid)/PVC 105ºC Screen (tinned copper braid)/silicone	– 30 to + °105 – 60 to + °200CC
	All Types	PSTB/R PALPP/R	Round Round	PVC °105C Silicone	Screen (PET tape/aluminium) /PVC °105C Screen (PET tape/aluminium)/silicone	– 30 to + °105 – 60 to + °200CC
	All Types	FES/R	Round	FEP	Silicone	– 60 to + 205°C
	All Types	FECTS/R	Round	FEP	Screen (tinned copper braid)/silicone	– 60 to + 205°C
	All Types	2FE/R 2PF/R	Round Round	FEP PFA	FEP PFA	– 90 to + 205°C – 90 to + 260°C
	All Types	FECTFE/R FEGTFE/R PFCTPF/R PFGTPF/R	Round Round Round Round	FEP FEP PFA PFA	Screen (tinned copper braid)/FEP Screen (galvanized steel braid)/FEP Screen (tinned copper braid)/PFA Screen (galvanized steel braid)/PFA	– 90 to + 205°C – 90 to + 205°C – 90 to + 260°C – 90 to + 260°C
	All Types	FEGB/Y PFGB/Y FEGB/R PFGB/R	Flat Flat Flat Flat	FEP PFA FEP PFA	Glassfibre Glassfibre Glassfibre Glassfibre	– 90 to + °205C – 90 to + °260C – 90 to + °205C – 90 to + °260C
	All Types	SGBCT/Y SGBGT/R	Flat Flat	Silicone Silicone	Glassfibre / Tinned copper braid Glassfibre / Galvanized steel braid	– 60 to + 220°C – 60 to + 220°C
	All Types	2GB/Y 2G1B/Y	Flat Flat	Glassfibre High Temp. Resist. Glassfibre	Glassfibre High Temp. Resist. Glassfibre	– 60 to + 350°C – 60 to + 400°C
	All Types	2GBGT/R 2GBCT/R	Round Round	Glassfibre Glassfibre	Glassfibre / Galvanized steel braid Glassfibre / Tinned copper braid	– 60 to + 350°C – 60 to + 350°C
	All Types	2MB/Y	Flat	Mineral Fibre	Mineral fibre	– 60 to + °400C
	All Types	FEGBGT/R PFGBCT/R	Round Round	FEP PFA	Glassfibre / Galvanized steel braid Glassfibre / Tinned copper braid	– 60 to + 205°C – 60 to + 260°C
	All Types	2PGB/R	Round	Polyamide Tape / Glassfibre	Polyamide Tape / Glassfibre	– 60 to + 350°C
	All Types	2SI/Y 2CI/Y	Flat Flat	Silica fibre Ceramic fibre	Silica fibre Ceramic fibre	0 to + 1100°C 0 to + 1400°C

TABLE: 2

Current Definitions and Colour Codes

EXTENSION AND COMPENSATION CABLES

SYMBOLS			TYPE OF METAL		COLOUR CODE (3) (4)		
Extension Class 1 IEC 584-3	Extension Class 1 ANSI MC 96-1 (5)	Extension class 2 or compensation	+	-	IEC 584-3 (1989)	ANSI / MC 96-1 (5) (1964)	JIS C 1610 (1995)
TX1	TX1	TX2 or TC	Copper	Copper Nickel T			
JX1	JX1	JX2 or JC	Iron	Copper Nickel J			
EX1	EX1	EX2 or EC	Nickel-Chrome	Copper Nickel E			
KX1	KX1	KX2 or KC	Nickel-Chrome	Nickel Aliminium			
		KCA (or WC)	Iron	Copper Nickel KCA			
		KCB (or VC) (1)	Copper	Copper Nickel KCB			
NX1	NX1	NX2 or NC	Nickel-Chrome Silicium	Nickel Silicium			
		RCA or RCB	Copper	Copper-Nickel R			
		SCA or SCB	Copper	Copper-Nickel S			
		BC	Alloyed Copper (2)	Copper			
		GC					
		DC					
		CC					

PT100 CABLES
MAIN PRODUCTS

PT-100 Cables - Resistance Thermometer Cables

Connections between device and resistance thermometers are made by certain standardised cables. Resistance thermometre is a resistor that measured values vary with the heat. Therefore, resistance value of the cable will be added to circuit as factor that can affect the temperature measurement. In other words, throughout the cable production process, some important issues come into the topic related to cable length. Resistance value of the cable should not affect the resistance value of the resistance thermometer more than determined rates that are given in standards. Otherwise, temperature values have to be read perfectly accurate.

Another issue about the cables that are connecting the resistance thermometer and the device, is cable' s insulation class. Temperature of the cable at the connection point to R/T and cable's ambient temperature are very essential. Cables will be chosen according to determined temperatures and by taking insulation classes into consideration. Basicaly, there are two issues about cable choice. These are cable section and cable insulation. Choices have to be made by utilizing IEC 584 Standard, DIN 43713 and DIN 43714 norms. Our products are conforming to standads.

	2P 2S	PVC 105°C Silicone	PVC 105°C Silicone	-30 to + 105°C -60 to + 200°C
	2FE 2PF	FEP PFA	FEP PFA	-90 to + 205°C -90 to + 260°C
	FES	FEP	Silicone	-60 to + 205°C
	FEGB PFGB	PFA	Glassfibre	-60 to + 260°C
	FEGB/GT PFGB/GT	Glassfibre	Glassfibre	-60 to + 350°C
	2GB/GT 2MB/GT	High Temp. Resist. Glassfibre Mineral fibre	High Temp. Resist. Glassfibre Mineral fibre	-60 to + 600°C -60 to + 600°C
	2PO2GB/CT	Polyamide / Glassfibre	Polyamide / Glassfibre	-60 to + 500°C

CONDUCTOR SECTIONS AND COUNT OF WIRES RELATED TO COUNT OF CORES

2, 3, 4, 6 or 8,12	0.125	26	7 x 0.15
2, 3, 4, 6 or 8,12	0.22	24	7 x 0.20
2, 3 or 4,8,12	0.34	22	7 x 0.25
2, 3 or 4,8,12	0.34	22	19 x 0.15
2, 3 or 4	0.50	20	16 x 0.20
2, 3 or 4	0.75	-	24 x 0.20

CABLE CODES

THERMOCOUPLE EXTENSION AND COMPENSATION CABLES

Example: ENGİN®

ENGİN®

ENGİN registered trademark

1	A: Thermocoupe Cable Symbol B: PT10 C: PT1000
2	Insulation Reference
3	x: Total count of pers on cable n: Count of cores on a per
4	Count of cores
5	Conductor Section mm²
6	Conductor Construction
7	IEC Standard

Example: K-2FE-4 (2x0.22mm²) 7x0.20mm IEC 584-2
1 2 3 4 5 6 7

KX-2FE-4(2x0,22mm2)7x0,20mm IEC 584-3

KCA-2FE-4(2x0,22mm2)7x0,20mm IEC 584-3

PT100 CABLE CODE

Example: ENGİN®

ENGİN®

ENGİN registered trademark

1	a: PT100 Cable Symbol b: PT10 c: PT1000
2	Insulati
3	x: Total count of pers on cable n: Count of cores on a per
4	Count of cores
5	Conductor Section mm²
6	Conductor Construction
7	IEC Standard

ÖRNEK: PT100 2FE 4 (3x0.22mm²) 7x0.20mm IEC 584-3
1 2 3 4 5 6 7

WHAT IS RESISTANCE HEATER?

Word meaning of the resistance is strength, durability against a power. However, resistance is known as a system that converts electrical energy to heat energy in colloquial language.

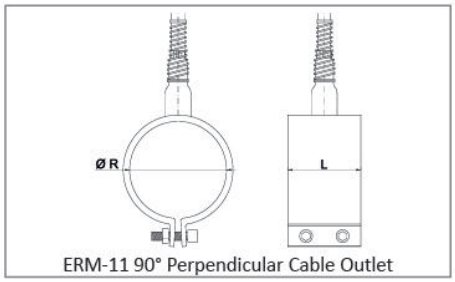
While resistance heaters can be used for daily social life as a heating element, they also have many different use areas and use of purposes in the industry.

Resistance heaters are classified and produced according to their use areas, constructional features, insulation classes and certain standards(geometry, shape, wattage, voltage etc.). They also can be designed specially and produced for different applications as nonstandard.

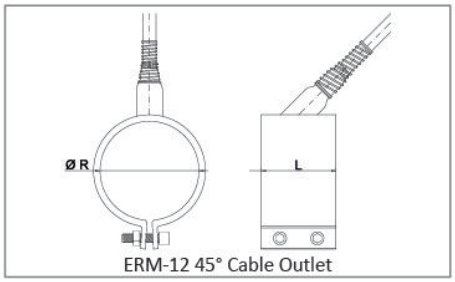
Our firm provides required resistance heaters to industries by its innovative expert staff. Users can choose resistance heaters as desired specs from this catalogue.

CONTENTS

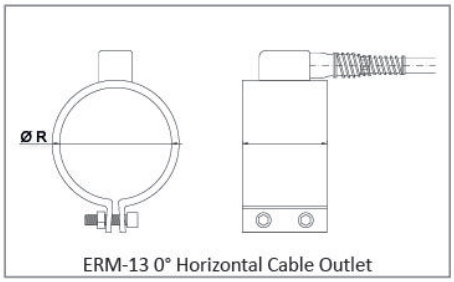
NOZZLE BAND HEATERS (ERM-10)



ERM-11 90° Perpendicular Cable Outlet



ERM-12 45° Cable Outlet



ERM-13 0° Horizontal Cable Outlet

Applications

Nozzle band heaters are produced by brass tube, 60/15 and 80/20 nickel-chrome wires are used as heating wires and micanite plates are used for insulation. Heat resistance steel wire braided cables are used for cable outlet. Cable connection to resistance heater is protected by another brass tube. Melted material entrance is prevented, and this feature extends the service life of the heater. Standard cable length is 35 cm. Standard dimensions are usually in stock and special orders can be produced as desired dimensions and features(cable length, voltage, wattage etc.)

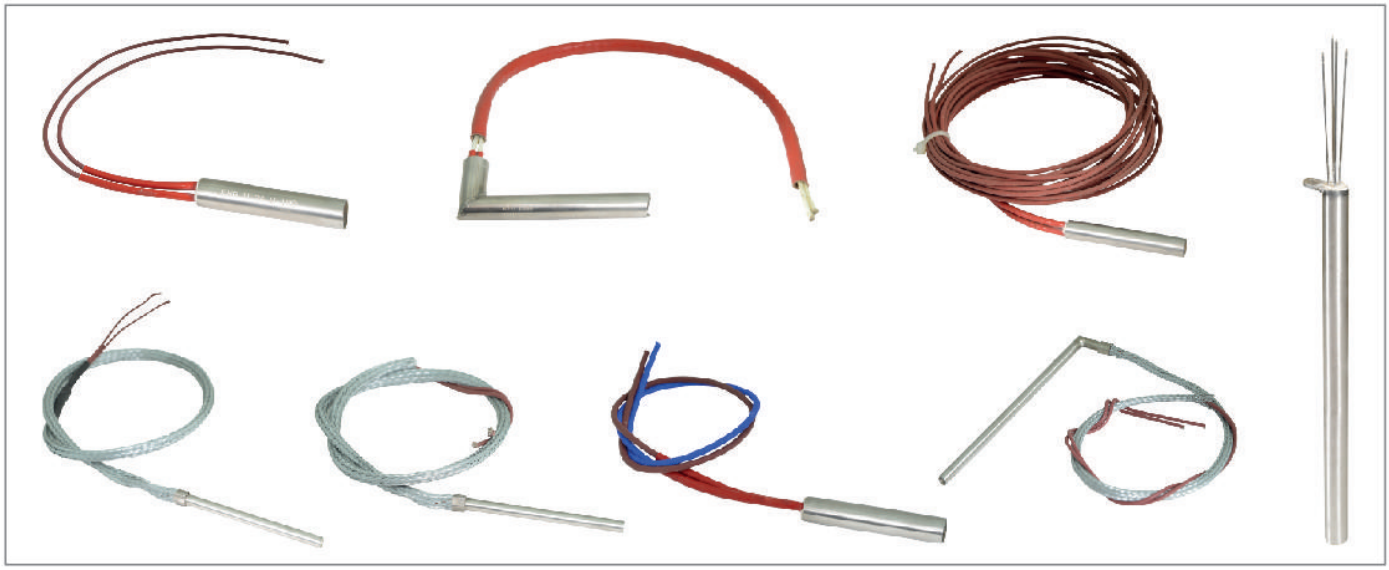
Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	100mm	25mm
Length (L)	-	200mm	20mm
Thickness (R2-R1)	4mm	4.20mm	3.70mm
Working Voltage	220	400	24
Power(W)	4.5w/cm2	5w/cm2	3.5w/cm2

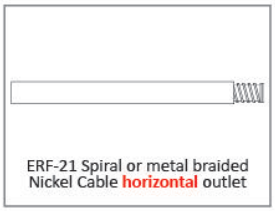
Technical Table	
Metal Parts	Brass tube or Stainless sheet
Heating Wire Insulation	12000C micanite plate
Heating Wire	60/15- 80/20 nickel-chrome wire / 12000C
Heat Insulation	-
Power Connection Terminal	Steel wire braided heat resist. cable outlet

NOZZLE BAND HEATERS (ERM-10)

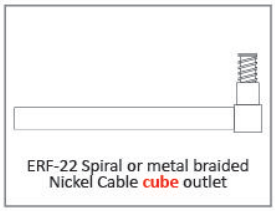
Ø	20	25	30	35	40	45	50	55	60	70
25	70	90	100	125						
30	80	110	125	150	170					
35	90	125	150	175	200	225				
40	110	150	170	200	230	250	290	310	340	
45	125	170	200	220	260	290	320	350	380	
50	140	180	220	240	290	320	360	380	420	480
55	160	200	240	260	320	350	390	420	450	500
60	180	220	260	280	320	380	420	450	500	550
65	190	230	275	320	380	420	450	490	550	600
70	200	250	300	360	400	450	490	530	580	680
75	220	270	330	400	420	450	520	570	630	740
80	230	290	350	430	450	500	560	620	670	780
85	240	310	380	450	480	540	600	650	700	820
90	260	330	400	480	500	560	630	700	740	860

CARTRIDGE HEATERS (ERF-20)

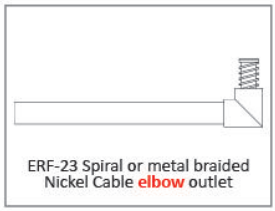




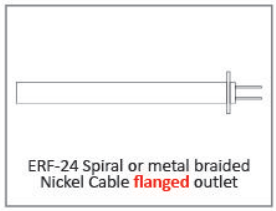
ERF-21 Spiral or metal braided Nickel Cable horizontal outlet



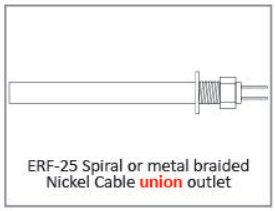
ERF-22 Spiral or metal braided Nickel Cable cube outlet



ERF-23 Spiral or metal braided Nickel Cable elbow outlet



ERF-24 Spiral or metal braided Nickel Cable flanged outlet



ERF-25 Spiral or metal braided Nickel Cable union outlet

Applications

Cartridge heaters are technological components that can fit in moulds/plates and can provide high wattage density. They are produced by winding 80/20 nickel-chrome wire on to ceramic, and the ceramic goes into stainless steel tube. The gap between tube and wire is filled with high purity grade magnesium oxide. Lastly, high efficiency and perfect heat transfer are gained by compressing the final product with special moulds.

Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	31.5mm	6.5mm
Length (L)	-	1500mm	50mm
Thickness (R2-R1)	-	-	-
Working Voltage	220	400	24
Power (W)	10w/cm2	13w/cm2	5w/cm2

Technical Table	
Metal Parts	304 quality Stainless tube
Heating Wire Insulation	12000C magnesium oxide
Heating Wire	80/20 Nickel-chrome wire / 12000C
Heat Insulation	-
Power Connection Terminal	Spiral or metal braided Nickel Cable Outlet

CARTRIDGE HEATERS (ERF-20)

Ø	L:mm	220 V
6,5	30	100 125
	40	100 125 160 175 200
	50	100 125 160 200 250
	60	125 160 200 250
	80	125 160 180 200 250 280 315
	100	100 160 200 250 315 350 400
	130	125 150 200 250 300 350 400
	160	200 250 300 350 400

Ø	L:mm	220 V
8	30	100 125 150
	40	100 150 200
	50	125 150 200 250
	60	125 150 200 250 300
	80	150 200 250 300 350
	100	175 200 250 300 400
	130	175 200 250 300 400 450
	160	200 250 300 400 500 550

Ø	L:mm	220 V
10	30	100 125 150
	40	100 125 150 200 250 300
	50	100 150 200 250 300 350
	60	125 150 200 250 300 400
	80	150 200 250 300 400 450
	100	150 200 250 300 400 450
	130	200 250 300 400 500 600 650
	160	250 300 400 500 600 700 750
	200	400 500 600 700 800 900
	250	400 500 600 700 800 900 1000

Ø	L:mm	220 V
12,5	40	125 150 200 250 300 350
	50	125 150 200 250 300 400
	60	150 200 250 300 400 500
	80	150 200 250 300 400 500 600
	100	200 250 300 400 500 600 700 800
	130	200 300 400 500 600 700 800 900
	160	250 300 400 500 600 800 100
	180	300 400 500 600 800 1000 1100
	200	300 400 500 800 1000 1200
	250	400 500 600 800 1000 1200 1400
	300	400 600 800 1000 1250 1500

Ø	L:mm	220 V
16	40	150 200 250 300 400 500
	50	150 200 250 300 400 500 550
	60	150 200 250 300 400 500 600
	80	200 250 300 400 500 600 800
	100	200 300 400 500 600 800 1000 1100
	130	400 500 600 800 1000 1200
	160	400 500 600 800 1000 1250
	180	400 500 600 800 1000 1200 1400
	200	500 600 800 1000 1200 1400 1500
	250	500 600 800 1000 1200 1400 1600
	300	500 600 800 1000 1200 1400 1600 2000
	350	500 800 1000 1200 1400 1600 2000 2200
	400	500 800 1000 1200 1400 1600 2000 2500

Ø	L:mm	220 V
20	50	200 250 300 400
	60	200 300 400 600 700
	80	200 400 600 800 1000 1100
	100	300 500 600 800 1000 1200 1400
	130	400 600 800 1000 1200 1400 1600
	160	500 600 800 1000 1250 1600 1800
	200	500 800 1000 1250 1500 1750 2000
	250	500 900 1250 1750 2250
	300	500 1000 1500 200 2500
	350	500 1000 2000 3000
	400	500 1000 2000 3000 3500
	450	1000 2000 3250 3750
	500	1000 2000 3000 4000

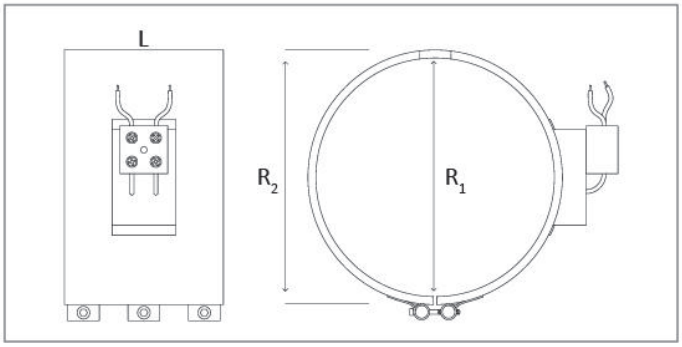
MICA INSULATED BAND HEATERS (ER/MK-30)

These heaters are designed to use on extruder lines to process plastic raw materials and to use in many industrial fields like packaging industry etc. They are very efficient long-lasting heaters.
These resistance heaters should not work before fastening it to surface. The assembly should be done to provide perfect heat transfer. Mica insulated band heaters are classified by their energy efficiency and production methods.

* Mica insulated normal band heaters. (ER/MK-31)
* Mica insulated, energy efficient band heaters. (ER/MK-32)
* Mica insulated, energy efficient band heaters with perforated sheet metal protection. (ER/MK-33)
* Mica insulated, normal plate heaters. (ER/MK-34)
* Mica insulated, energy efficient plate heaters. (ER/MK-35)
* Mica insulated frame heaters. (ER/MK-36)

Mica Insulated Normal Band Heaters ER/MK-31

Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Static porcelain stainless terminal Stainless screws and nuts



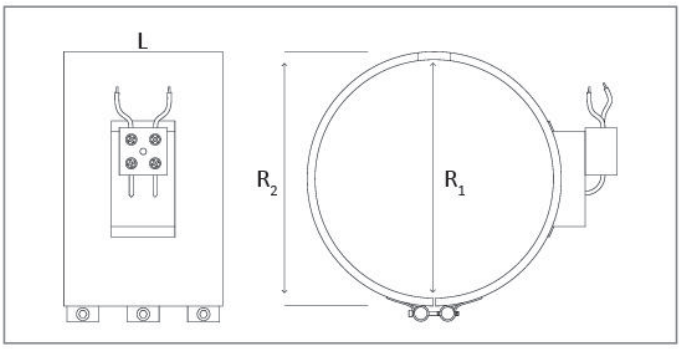
Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	400mm	50mm
Length (L)	-	500mm	30mm
Thickness (R2-R1)	3mm	3.5mm	2.8mm
Working Voltage	240-400	-	-
Power (W)	3.5w/cm2	3.8w/cm2	1w/cm2

MICA INSULATED BAND HEATERS (ER/MK-30)

* Mica insulated, energy efficient, extra protected band heaters

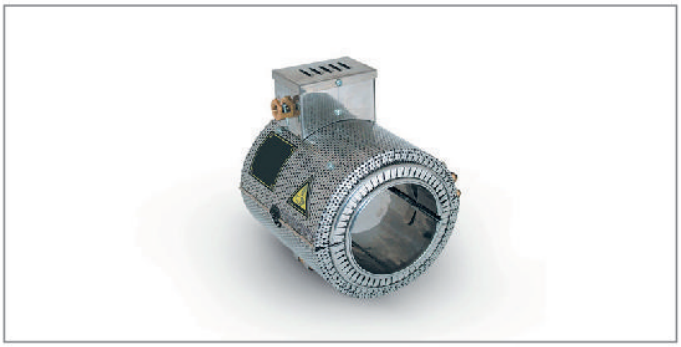
Mica insulated, energy efficient band heaters ER/MK-32

Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Static porcelain stainless terminal Stainless screws and nuts

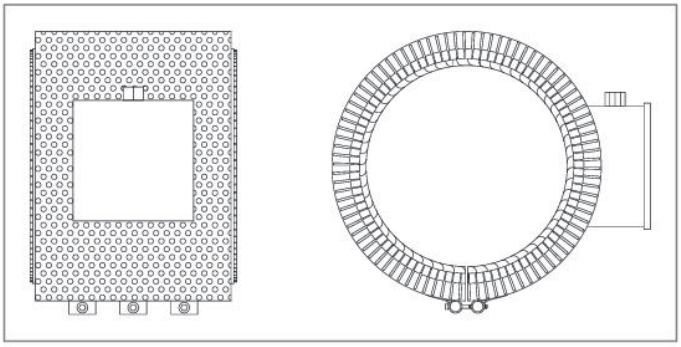


Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	400mm	50mm
Length (L)	-	500mm	30mm
Thickness (R2-R1)	3mm	3.5mm	2.8mm
Working Voltage	220-380	240-400	-
Power (W)	3.3w/cm2	3.8w/cm2	1w/cm2

Mica insulated, energy efficient band heaters with perforated sheet metal protection ER/MK-33



Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Static porcelain stainless terminal Stainless screws and nuts

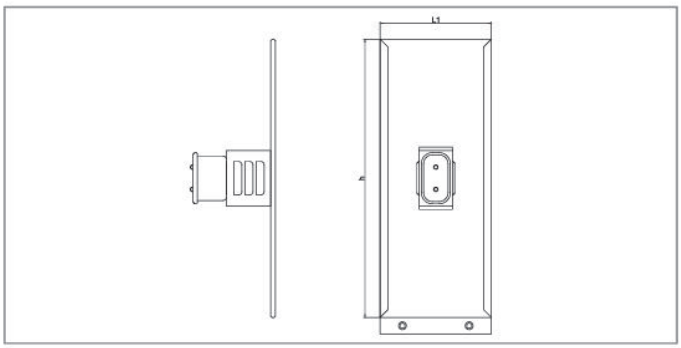


Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	400mm	50mm
Length (L)	-	500mm	30mm
Thickness (R2-R1)	13mm	15mm	11mm
Working Voltage	220-380	240-400	-
Power (W)	3.5w/cm2	3.8w/cm2	1w/cm2

MICA INSULATED BAND HEATERS (ER/MK-30)

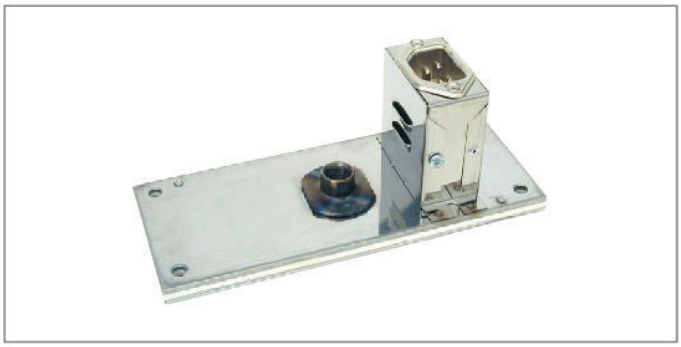
Mica insulated, normal plate heaters ER/MK-34

Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	4000C Nickel Cable Outlet Porcelain Plug

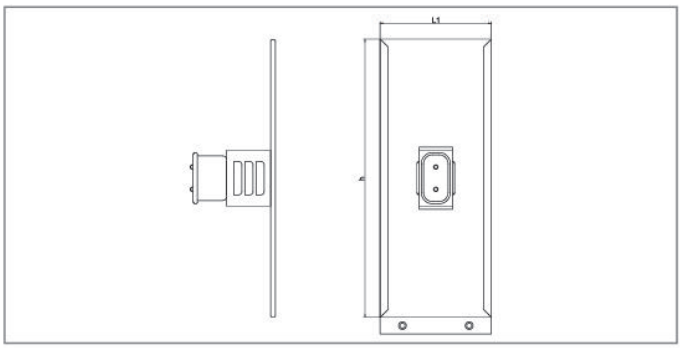


Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	500mm	25mm
Height (H)	-	1000mm	80mm
Thickness	3mm	3.5mm	2.8mm
Working Voltage	220-380	240-400	-
Power (W)	3.5w/cm2	3.8w/cm2	1w/cm2

Mica insulated, energy efficient plate heaters ER/MK-35



Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal and Assembly Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Earthing Ceramic Plug

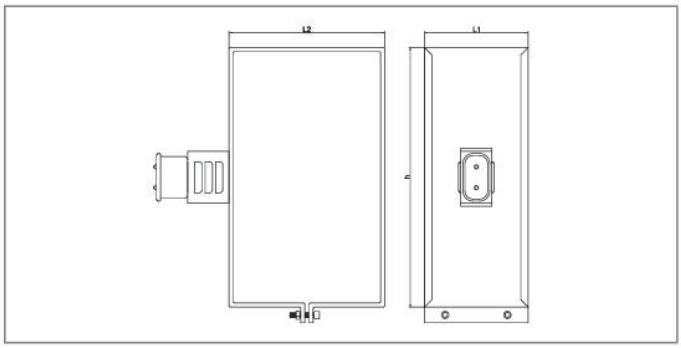


Technical Specs.	Nominal	Max.	Min.
Diameter (D)	-	400mm	50mm
Height (H)	-	500mm	30mm
Thickness	3mm	3.5mm	2.8mm
Working Voltage	220-380	240-400	-
Power (W)	3.5w/cm2	3.8w/cm2	1w/cm2

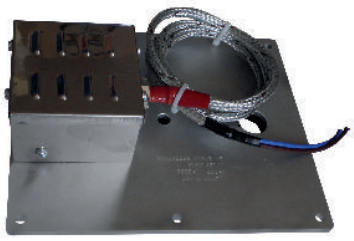
MICA INSULATED BAND HEATERS (ER/MK-30)

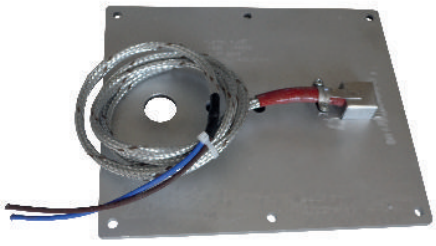
Mica insulated frame heaters ER/MK-36

Technical Table	
Metal Parts	Stainless Steel or Galvanized Sheet Metal
Heating Wire Insulation	10000C micanite plate
Heating Wire	60/15- 80/20 Nickel-Chrome wire / 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Static porcelain stainless terminal Stainless screws and nuts



Technical Specs.	Nominal	Max.	Min.
L1	-	400mm	50mm
L2	-	500mm	30mm
H	-	500mm	30mm
Working Voltage	220-380	240-400	-
Power (W)	3.5w/cm2	3.8w/cm2	1w/cm2



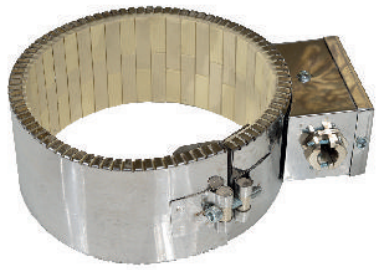


CERAMIC INSULATED HEATERS (ER/SY-50)

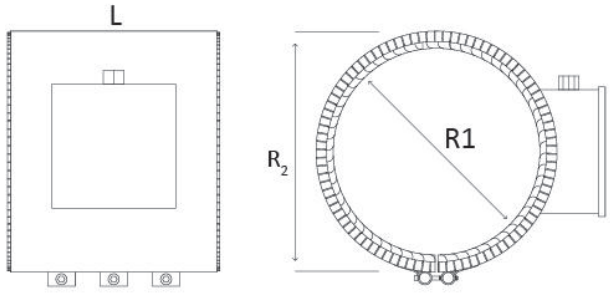
Ceramic insulated heaters are used in many areas of the industry. Especially in plastic industry, high wattage heaters are required for material melting and moulding processes, high melting temperature materials and for fast productions. Ceramic heaters are the best tools for that purpose.
Ceramic heaters can be tested or worked without assembling. They can be produced with different features according to applications and production methods.

* Ceramic Insulated Band Heaters (ER/YS-51)
* Ceramic Insulated, Energy Efficient Heaters with perforated sheet metal protection (ER/YS-52)
* Ceramic Insulated, Energy Efficient Heaters with perforated sheet metals (extra protection) (ER/YS-53)
* Ceramic Insulated Plate Heaters (ER/YS-54)
* Ceramic Insulated, Energy Efficient Plate Heaters with Assembly Sheet Metal (ER/YS-55)

Ceramic Insulated Band Heaters (ER/SY-51)



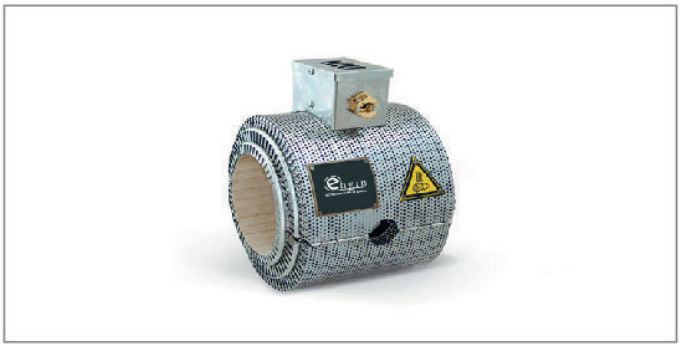
Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	12500C ceramic
Heating Wire	80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	1250 0C Ceramic Fibre
Power Connection Terminal	Static Porcelain Stainless Terminal Stainless screws and nuts



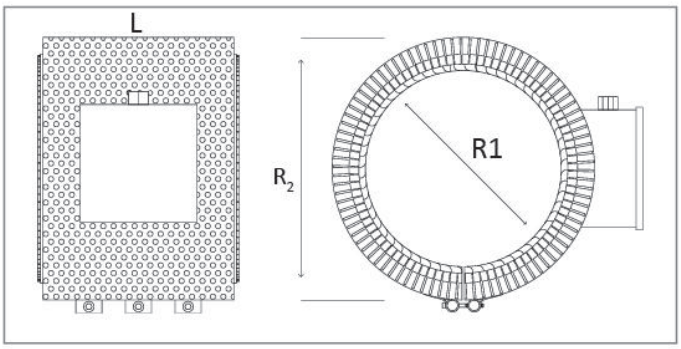
Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	60mm
Length (L)	-	500mm	30mm
Thickness (R2-R1)	12mm	13mm	9mm
Working Voltage	220-380	240-400	-
Power (W)	8w/cm2	8.5w/cm2	2w/cm2

CERAMIC INSULATED HEATERS (ER/SY-50)

Ceramic Insulated, Energy Efficient Heaters with perforated sheet metal protection (ER/SY-52)



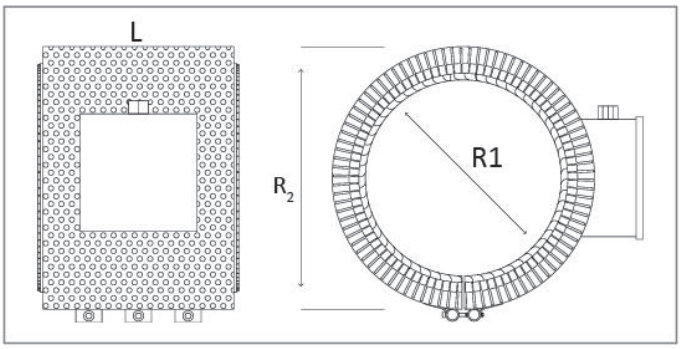
Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	12000C static porcelain
Heating Wire	60/15 - 80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	12500C Ceramic Fibre
Power Connection Terminal	4000C Nickel Cable Porcelain Plug or Static Porcelain Connection box



Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	100mm
Length (L)	-	500mm	100mm
Thickness (R2-R1)	24mm	26mm	22mm
Working Voltage	220-380	240-400	-
Power (W)	7w/cm2	7.5w/cm2	-

Ceramic Insulated, Energy Efficient Heaters with perforated sheet metal extra protection (ER/SY-53)

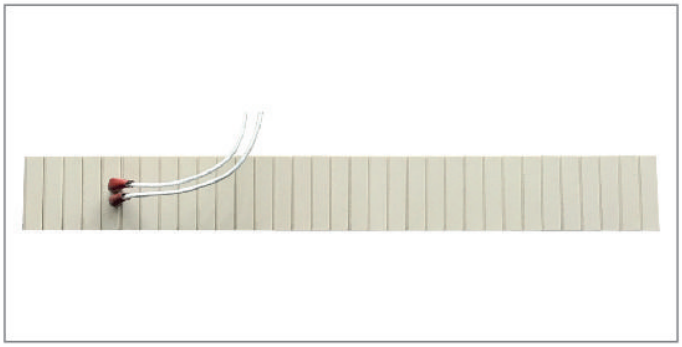
Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	12000C static porcelain
Heating Wire	60/15 - 80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	12500C Ceramic Fibre
Power Connection Terminal	4000C Nickel Cable Porcelain Plug or Static Porcelain Connection box



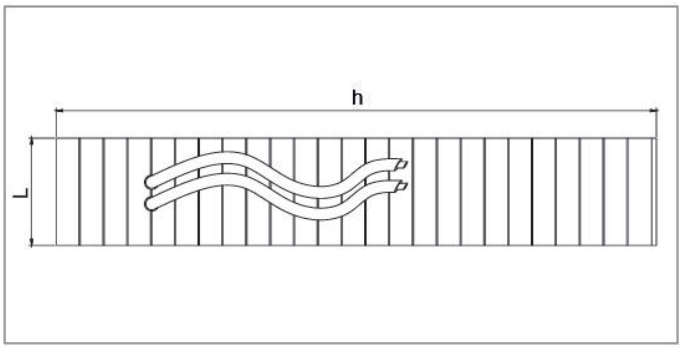
Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	100mm
Length (L)	-	500mm	100mm
Thickness (R2-R1)	35mm	26mm	22mm
Working Voltage	220-380	240-400	-
Power (W)	7w/cm2	7.5w/cm2	-

CERAMIC INSULATED PLATE HEATERS (ER/SY-50)

Ceramic Insulated Plate Heaters (ER/SY-54)



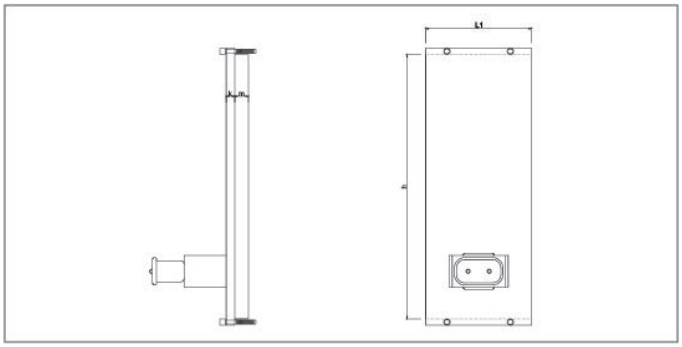
Technical Table	
Metal Parts	-
Heating Wire Insulation	12000C static porcelain
Heating Wire	60/15 - 80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	12500C Ceramic Fibre
Power Connection Terminal	4000C Nickel Cable Porcelain Plug or Static Porcelain Connection box



Technical Specs.	Nominal	Max.	Min.
Height (H)	-	500mm	150mm
Length (L)	-	-	100mm
Thickness	9mm	-	9mm
Working Voltage	220-380	240-400	-
Power (W)	5w/cm2	7.5w/cm2	2w/cm2

Ceramic Insulated, Energy Efficient Plate Heaters with Assembly Sheet Metal (ER/YS-55)

Technical Table	
Metal Parts	Stainless Steel
Assembly Sheet Metal	5-10mm DKP metal sheet
Heating Wire Insulation	Static Porcelain
Heating Wire	60/15 - 80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	12500C Ceramic Fibre
Power Connection Terminal	4000C Nickel Cable Porcelain Plug or Static Porcelain Connection box



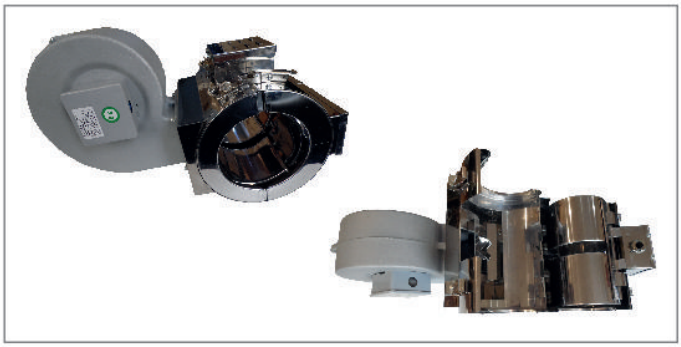
Teknik Özellikler	Nominal	Max.	Min.
Length (L)	300mm	500mm	60mm
Height (H)	-	1000mm	80mm
Thickness (k+m)	18mm	25mm	15mm
Working Voltage	220-380	240-400	-
Power (W)	5w/cm2	8w/cm2	3w/cm2

AIR COOLED HEATERS (ER/SMH-100)

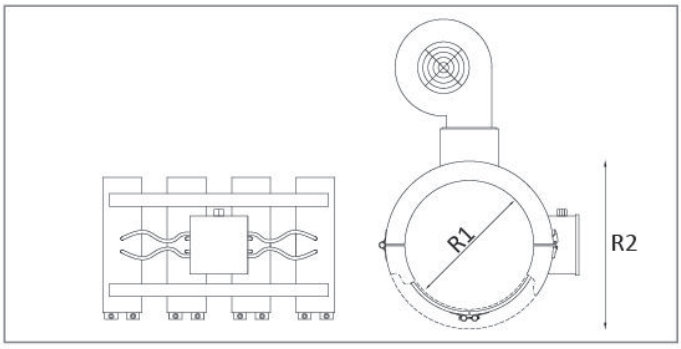
Air cooled heaters are mostly used on extrusion lines to melt plastic materials in the industry. The most important feature of these heaters, that they provide an advantage to hold the heat control close to set values by air cooling.
Mica insulated air cooled heaters can be safely used in places that needs power at max 3,5W/cm2.
Ceramic insulated air cooled heaters can be safely used to process polymers that have high melting temperatures and used in places that needs power at max 8W/cm2.

* Mica insulated Air Cooled Heaters (ER/SMH-110)
* Ceramic insulated Air Cooled Heaters (ER/SMH-120)
* Ceramic insulated Air Cooled Heaters with Aluminium Separator (ER/SMH-130)
* Ceramic insulated Band Heaters with Aluminium Separator (ER/SMH-140)

Mica insulated Air Cooled Heaters (ER/SMH-110)



Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	10000C micanite plate
Heating Wire	80/20 Nickel-Chrome Wire/ 12000C
Heat Insulation	1250 0C ceramic fibre
Power Connection Terminal	Static porcelain stainless terminal stainless screws and nuts



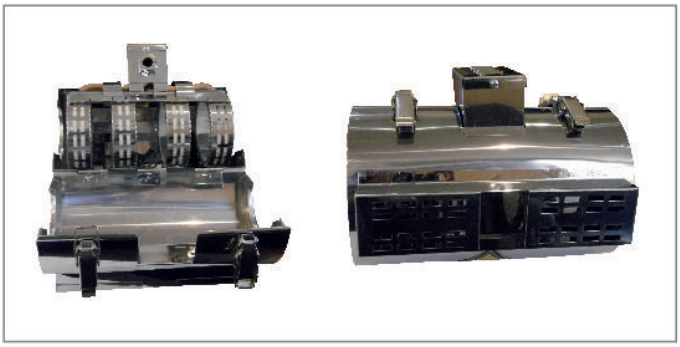
Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	300mm	60mm
Length(L)	-	500mm	150mm
Thickness (R2-R1)	30mm	-	-
Working Voltage	220-380	240-400	-
Power (W)	3w/cm2	3.3w/cm2	2w/cm2

AIR COOLED HEATERS (ER/SMH-100)

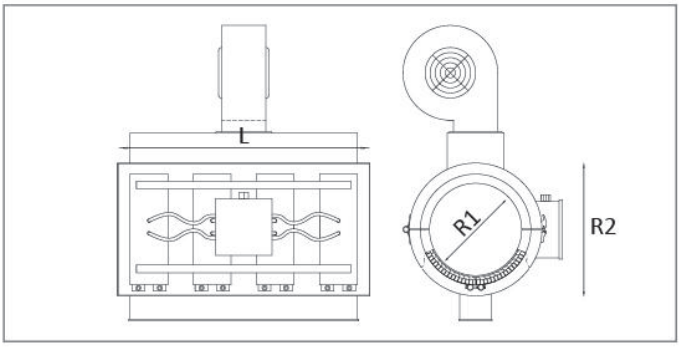
Ceramic Insulated Air Cooled Heaters

These heaters are energy efficient and long lasting products that are designed and produced to be used on extruder lines for processing plastic raw materials and at packaging industry. Energy efficiency is provided by 1200 0C ceramic fibre heat insulation. These heaters should not be worked idle without assembling. They have to be assembled for perfect heat transfer.

Ceramic insulated Air Cooled Heaters (ER/SMH-120)

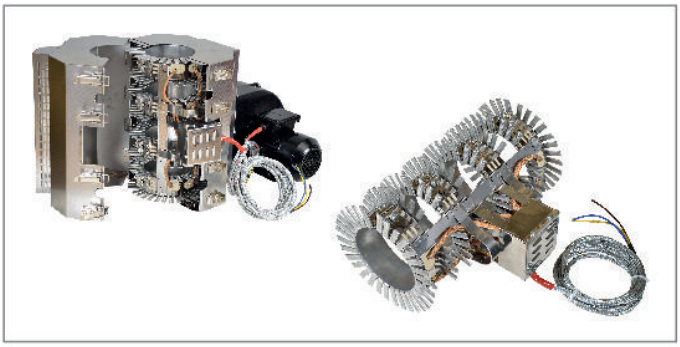


Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	12000C static porcelain
Heating Wire	60/15- 80/20 Nickel-Chrome / 12000C
Heat Insulation	12500C ceramic fibre
Power Connection Terminal	4000C Nickel Cable porcelain plug or static porcelain connection box

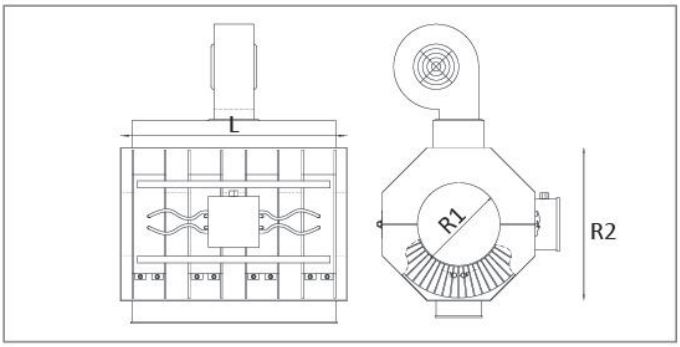


Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	100mm
Length(L)	-	-	-
Thickness (R2-R1)	24mm	26mm	22mm
Working Voltage	220-380	240-400	-
Power (W)	7w/cm2	7.5w/cm2	-

Ceramic insulated Air Cooled Heaters with Aluminium Separator (ER/SMH-130)



Technical Table	
Metal Parts	Stainless Steel
Assembly Sheet Metal	5-10mm DKP sheet metal
Heating Wire Insulation	Static Porcelain
Heating Wire	60/15- 80/20 Nickel-Chrome / 12000C
Heat Insulation	12500C ceramic fibre
Power Connection Terminal	4000C Nickel Cable porcelain plug or static porcelain connection box



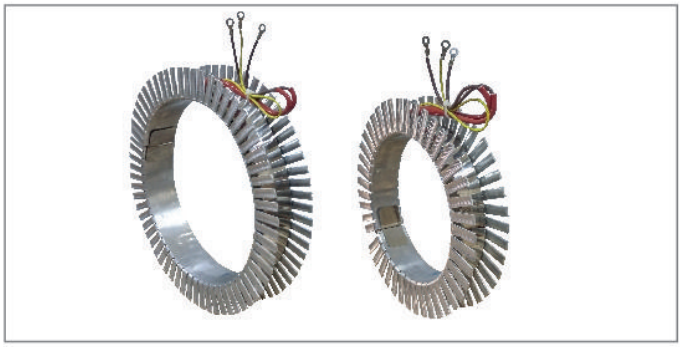
Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	30mm
Length(L)	-	1000mm	80mm
Thickness (R2-R1)	23mm	25mm	21mm
Working Voltage	220-400v optional 12v-48v-110v	-	-
Power (W)	7w/cm2	8w/cm2	-

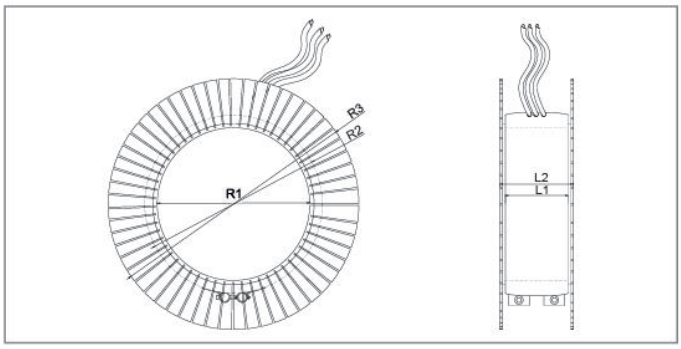
AIR COOLED HEATERS (ER/SMH-100)

Ceramic insulated Band Heaters with Aluminium Separator

These heaters are energy efficient and long lasting products that are designed and produced to be used on extruder lines for processing plastic raw materials and at packaging industry. Energy efficiency is provided by 1200 0C ceramic fibre heat insulation. These heaters should not be worked idle without assembling. They have to be assembled for perfect heat transfer.

Ceramic insulated Band Heaters with Aluminum Seperator.(ER/SMH-140)





Technical Table	
Metal Parts	Stainless Steel
Heating Wire Insulation	12000C static porcelain
Heating Wire	60/15- 80/20 Nickel-Chrome / 12000C
Heat Insulation	12500C ceramic fibre
Power Connection Terminal	4000C Nickel Cable porcelain plug or static porcelain connection box

Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	500mm	100mm
Length(L)	-	-	-
Thickness (R2-R1)	24mm	26mm	22mm
Working Voltage	230-400	-	-
Power (W)	7w/cm2	7.5w/cm2	-

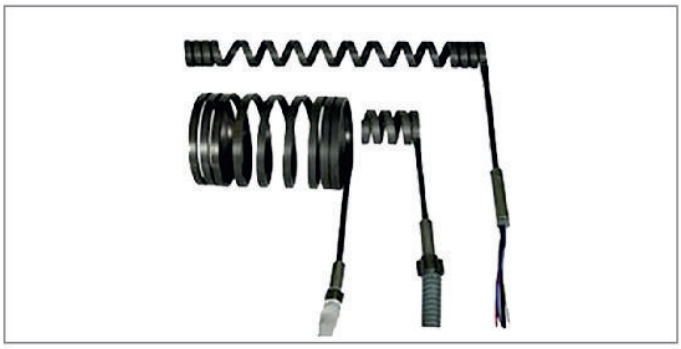
HOT RUNNER COIL HEATERS (ER/SYR-200)

Coil heaters are the most important heating elements that stabilise temperature of nozzle while the plastic material is injected into mould on injection machines. This situation also affects the quality of the material. Hot Runner Coil Heater also can be used for sectional heating in different fields. It can be produced as desired dimensions and wattages.
These products are controlled by thermocouples and named by place of thermocouples.

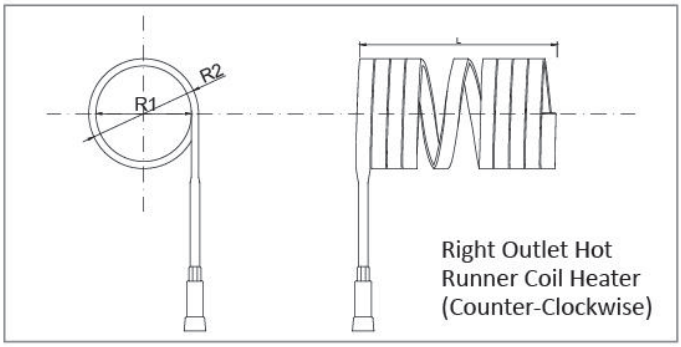
*Right Outlet(Counter-clockwise) **(ER/SRY-201)**
*Left Outlet (Clockwise) **(ER/SRY-202)**
*Central Outlet **(ER/SRY-203)**

Watt	Total Length	Spiral Length
180	205	165
230	270	230
300	360	320
350	430	390
420	540	500
520	650	610
620	760	720
700	900	860
800	930	890
1000	1150	1110
1250	1385	1100

Right Outlet Coil Heater (Counter-Clockwise) (ER/SRY-201)



Technical Table	
Metal Parts	Stainless Steel Tube
Heating Wire Insulation	12000C magnesium oxide
Heating Wire	80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	-
Power Connection Terminal	Glassfibre tube, fluoropolymer insulated cables and socket

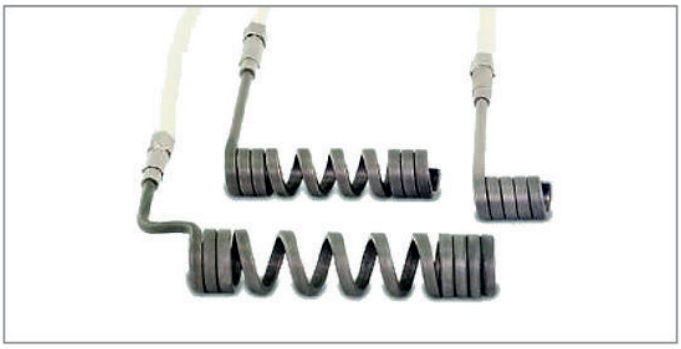


Right Outlet Hot Runner Coil Heater (Counter-Clockwise)

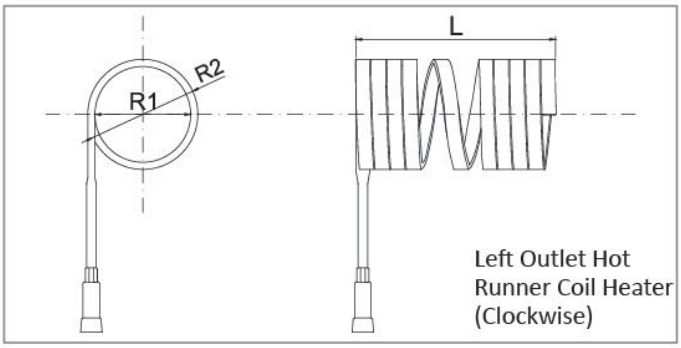
Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	50mm	10mm
Length (L)	-	500mm	150mm
Thickness (R2-R1)	2.2mm	2.40mm	2.10mm
Working Voltage	230-400	-	-
Power (W)	-	1250	180

HOT RUNNER COIL HEATERS (ER/SYR-200)

Left Outlet Coil Heater (Clockwise) (ER/SRY-202)



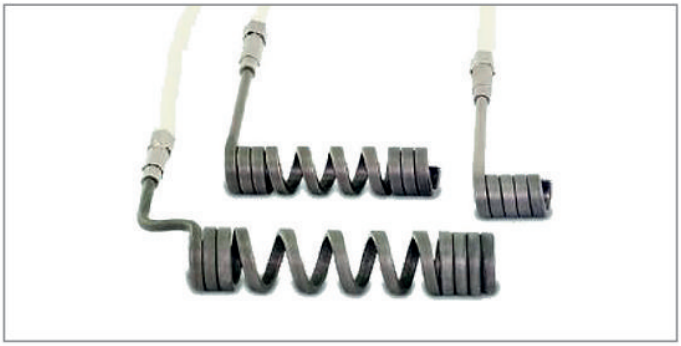
Technical Table	
Metal Parts	Stainless Steel Tube
Heating Wire Insulation	12000C magnesium oxide
Heating Wire	80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	Magnesium Oxide
Power Connection Terminal	Glassfibre tube, fluoropolymer insulated cables and socket



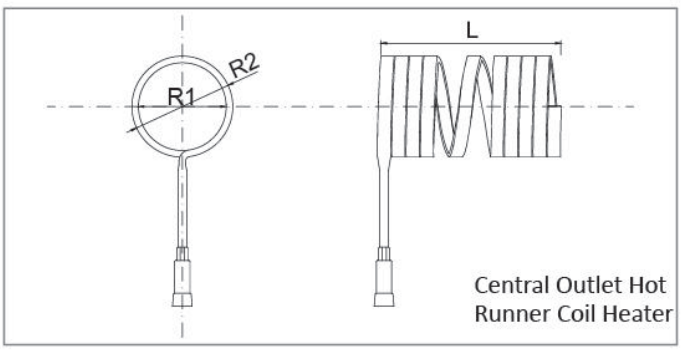
Left Outlet Hot Runner Coil Heater (Clockwise)

Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	50mm	10mm
Length (L)	-	200mm	50mm
Thickness (R2-R1)	2.2mm	2.4mm	2.1mm
Working Voltage	220-380	-	-
Power (W)	-	1250	180

Central Outlet Coil Heater (ER/SRY-203)



Technical Table	
Metal Parts	Stainless Steel Tube
Heating Wire Insulation	12000C magnesium oxide
Heating Wire	80/20 Nickel-Chrome Wire / 12000C
Heat Insulation	Magnesium Oxide
Power Connection Terminal	Glassfibre tube, fluoropolymer insulated cables and socket



Central Outlet Hot Runner Coil Heater

Technical Specs.	Nominal	Max.	Min.
Diameter (R1)	-	50mm	10mm
Length (L)	-	200mm	50mm
Thickness (R2-R1)	2.2mm	2.4mm	2.1mm
Working Voltage	220-380	-	-
Power (W)	-	1250	180

TUBULAR HEATERS (ER/BR-300)

Tubular and Finned Tubular Heaters are used for heating water, acide, oil, dry air, and moulds etc. in the industry. They are produced by different quality of tubes like 304-316-321-309-310 according to working temperatures and place of use. 80/20 Nickel-Chrome wire is used as heating wire.

Tubular heaters can be produced as sleeved, flanged, finned, with union and in desired shape flat or curved, and in desired dimensions and power(wattage).

Flanged Tubular Heater (ER/BR-301)

Flanged Tubular Heater (ER/BR-301)

Flanged Tubular Heater with Thermostat(ER/BR-302)

Finned Tubular Heaterst (ER/BR-302)

Formed Tubular Heater with Union (ER/BR-303)

Formed Tubular Heater with Union (ER/BR-303)

Formed Tubular Heater with Union (ER/BR-304)

Formed Tubular Heater with Union (ER/BR-304)

CERAMIC INFRARED HEATERS

CONCAVE HEATERS

Ceramic concave heaters become an industry standard in time by wide range of industrial, commercial and domestic applications. These filled heaters can reach high temperatures with its special FeCrAl resistance wire, and can reach 7500C by specifically formulated body construction. 1000W power can be taken with the FTE model.





CERAMIC INFRARED HEATERS

FLAT HEATERS

Ceramic flat heaters become an industry standard in time by wide range of industrial, commercial and domestic applications. These filled heaters can reach high temperatures with its special FeCrAl resistance wire, and can reach 7500C by specifically formulated body construction. 1000W power can be taken with the FFE model. Homogeneous infrared radiation can be attained thanks to flat body surface.





BULB HEATERS

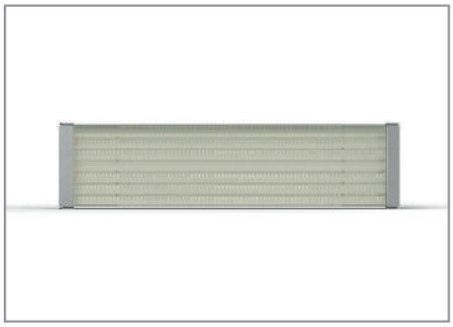
Our Edison type Bulb heaters become an industry standard for reptile and pet sectors and different ambient heating applications. In order not to break night and day sleeping cycle of creatures and without any negative effects, you can utilize from these lightless infrared heaters. Ceramicx hollow cast bulbs consist of a high temperature FeCrAl resistance alloy embedded in a specially formulated ceramic body allowing operating temperature up to 530degC and a maximum power of 400W (ESEXL Model Only). The face of the ESE is circular and convex in design, producing a circular outward trending radiant output.

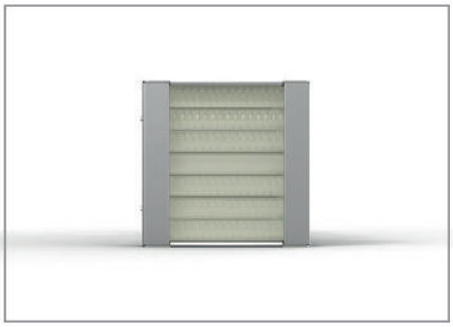
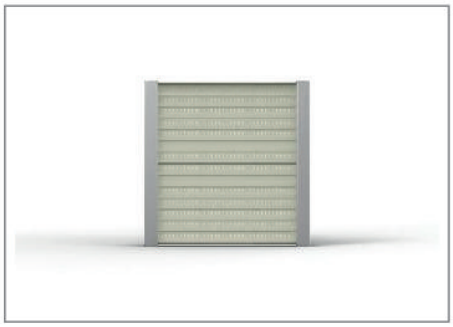



QUARTZ HEATERS

STANDARD QUARTZ

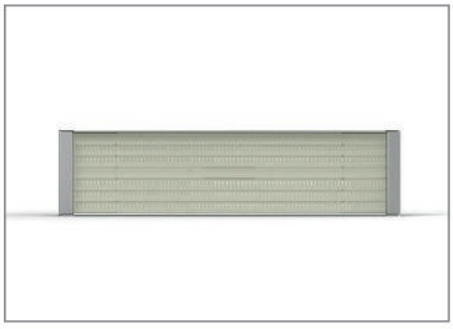
The standard quartz heating elements range consists of cassette style elements constructed with aluminised steel as standard, stainless steel is also an option. These emitters have peak emissions in the medium to long wavelength range. These elements are commonly used in a wide range of industrial heating and drying applications. The standard quartz element is available in 4 industry standard sizes. All heaters are mounted using either 2 or 4 M5 x 30mm fixings screws attached to the rear of the element.



PILLARED QUARTZ

The pillared quartz heating elements range consists of cassette style elements constructed with aluminised steel as standard, stainless steel is also an option. These emitters have peak emissions in the medium to long wavelength range. They are commonly used in a wide range of industrial heating and drying applications including energy efficient industrial heaters.The pillared quartz element is available in 2 industry standard sizes. All heaters are mounted using a pressed ceramic pillar which also houses the screw terminals for connecting the electrical supply to the element. The element requires a 42 x 15mm punched slot in the reflector for mounting with the supplied spring and clip. Maximum reflector thickness is 1.5mm.




TUNGSTEN / HALOGEN TUBES

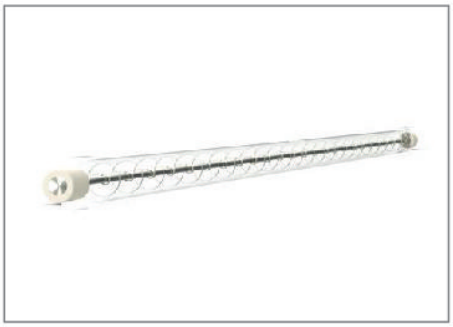
TUNGSTEN TUBES

This range of linear quartz heating elements was designed for applications requiring a fast thermal response and/or high power density with peak emission wavelengths in the shorter end of the medium wave range (~1.6-1.9µm).
The standard quartz tungsten element is available in 3 sizes. Models are sorted as Long-Medium-Short. All heaters are fitted with the industry standard R7s type termination which, when used with a suitable R7s holder at both ends, is used to mount the heater and provide the electrical connection. Bespoke sizes are also available but a minimum order of 25 pieces applies.



HALOGEN TUBES

This range of linear quartz infrared heating elements was designed for applications requiring a very fast thermal response and/or high power density with peak emission wavelengths in the short wave range (~1.0-1.2µm).
The standard halogen element is available in 3 sizes. All heaters are fitted with the industry standard R7s type termination which, when used with a suitable R7s holder at both ends, is used to mount the heater and provide the electrical connection. Bespoke sizes are also available but a minimum order of 25 pieces applies.



60X35X17 MM

OPEN BOX CONNECTION TERMINAL

90X90X55 MM

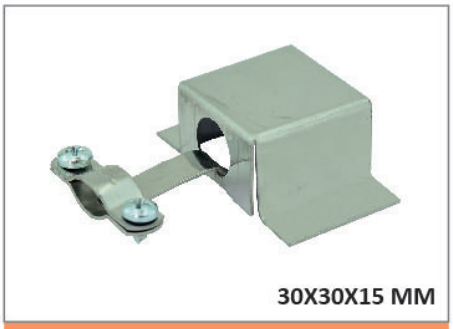
ENCLOSED CONNECTION TERMINAL

120X100X55 MM

ENCLOSED CONNECTION TERMINAL

80X55X55 MM

ENCLOSED CONNECTION TERMINAL

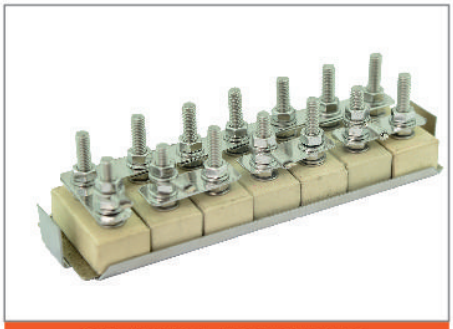


30X30X15 MM

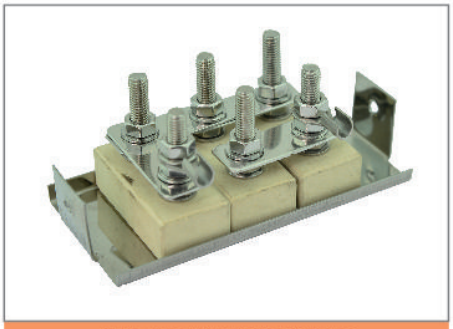
CABLE BOX AND HOLDER

30X30X15 MM

CABLE BOX AND HOLDER



STAINLESS STEEL MULTIPLE
SCREWED FIXING CONNECTIONS



STAINLESS STEEL TRIPLE
SCREWED FIXING CONNECTIONS

STAINLESS STEEL SINGLE
SCREWED FIXING CONNECTIONS

TRIPLE SILICONE PLUG

DUAL SILICONE PLUG

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