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ENERPIA

ROOF SNOW MELTING SYSTEM

SMART HEATING SYSTEM

*Smart heating
specialist*



ENERPIA strives to create
a warm and safe world.

ENERPIA
Smart heating specialist

Eco-friendly advanced heating system Enerpia Roof Snow Melting Fixed Temperature Wire

Roof snow melting system that minimizes structural loss and various types of roof damage caused by snow loads during the winter season

Fixed temperature wires (non-electromagnetic heating cables) that generate constant heat can protect people and facilities from ice dams, falling icicles, roof leaks, and structural damage caused by melted snow and ice (sea ice water) on roofs that are not removed properly.



Self-controlled fixed temperature wire! **Safe and sound from the winter cold!**

Quality and safety come first .

Made with high-temperature resistant and flexible materials, installation is easy and safe even in demanding installation environments.



Why?

Why choose Enerpia Roof Snow Melting Fixed Temperature Wire?



The internal resistance changes according to the temperature change, allowing **automatic adjustment of the amount of heat generated.**



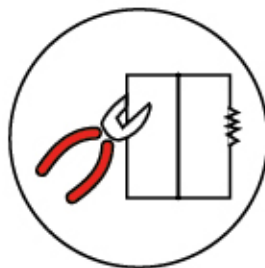
Safer from localized overheating or burnout



Self-regulated heater provides a great power saving effect and with a semi-permanent life span, it can be used safely **without the need for separate maintenance.**



Blocks electromagnetic waves for safety



Because it is an **infinite parallel circuit**, it is possible to **cut and connect without wasting wires** according to the use in the field.

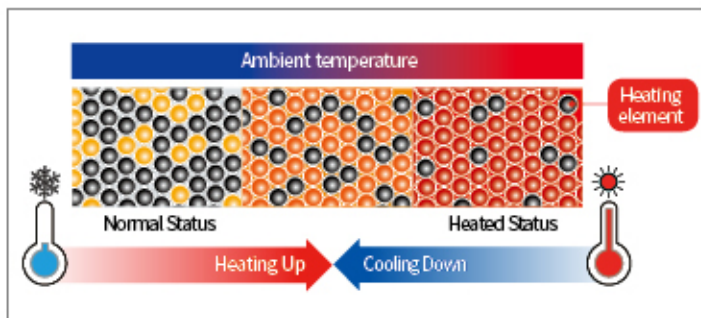


Semi-permanent life span without corrosion

Put your mind at ease with Roof Snow Melting Heat Wire!

This product has a self-regulating function that controls the amount of heat generated by changing the current flow according to the ambient temperature. It is a safe roof snow melting heat wire that does not cause fire due to overheating or heat storage.

| Heating principle of fixed temperature wire



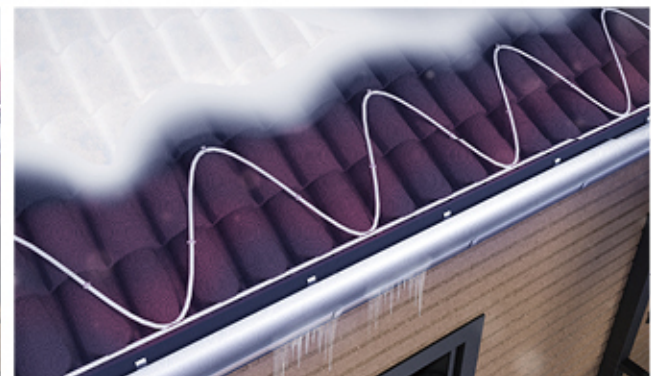
Self-regulating function that properly adjusts the amount of heat generated with the addition of PTC characteristics

With the addition of PTC characteristics, the external environment such as temperature rise, increase in electric resistance, decrease in current amount, and drop in temperature, are sensed by the particles of the heating element itself to control the current and control the amount of heat generated. This allows tight control over the power consumption and prevents overheating.

Fixed temperature wire cable that adjusts the amount of heat generated according to the ambient temperature!



Increase heat generation
(in the case of drop in ambient temperature)
- Increased Current Path increases molecular activity, resulting in increase in the amount of heat generated



Decrease heat generation
(in the case of rise in ambient temperature)
- Decreased Current Path decreases molecular activity, resulting in decrease in the amount of heat generated

Enerpia fixed temperature wire melts snow on your roof without freezing even during the winter cold without worrying about electromagnetic waves!



Roof Snow Melting System

Fixed temperature wire specifications by application

This is the best product that minimizes structural loss and roof damage caused by the weight of snow in winter resulting in safe protection of the roof and various house facilities!

Fixed temperature wire for melting snow on roofs that can be used reliably for a long period of time with excellent safety and one-off construction.

Fixed temperature wire specifications by application

Item	Model no.	Length	Power	Max. allowed temperature	Temperature for continuous usage	Conductor	Size
Prevent freezing/ burst due to freezing	SRL 16-2CR	100M/roll	16	85°C	65°C	18AWG	11.0mm(W) x 6.5mm(H)
Floor heating	FSR 40-2CR	100M/roll	40	100°C	85°C	16AWG	12.8mm(W) x 6.8mm(H)
Roof snow melting	GR 40-2CR	100M/roll	40	85°C	65°C	18AWG	13.0mm(W) x 6.8mm(H)
Snow melting	FM 60-2CR	100M/roll	60	100°C	85°C	14AWG	19.2mm(W) x 9.1mm(H)

*Standard heat quantity: 10W/m, 16W/m, 24W/m, 30W/m

*Including bobbin, excluding box



ROOF SNOW
MELTING
SYSTEM

No problem in any environment! *Smart heating specialist*

Can be installed anywhere you want

The fixed temperature wire for prevention of freezing/burst due to freezing is a cable whose output (heat output, power output) changes according to the temperature of a pipe or container. It has an infinite parallel structure, so the amount of heat generated per unit meter is constant regardless of the length, and the internal resistance is adjusted according to the change in the ambient temperature. This allows it to automatically increase or decrease the amount of heat generated through self-regulation.

| Structure of fixed temperature wire for prevention of freezing/burst due to freezing (SRL 16-2CR)



- 1 Conductor**
Supplies power
Tin-plated copper wire, asbestos wire, TA

- 2 Heating element**
Semiconductor heating element with PTC characteristics formulated with a semiconductive polymer material that forms an infinite parallel circuit

- 3 Internal insulator**
Helps prevent the reduction of heat generated, underwent a high-temperature heat treatment process

- 4 Braiding**
Protects the cable from external shocks, improves traction and shields electromagnetic waves.

- 5 Primary insulation sheath**
Provides mitigation against external thermal and physical shock Polyester (Bare Type)

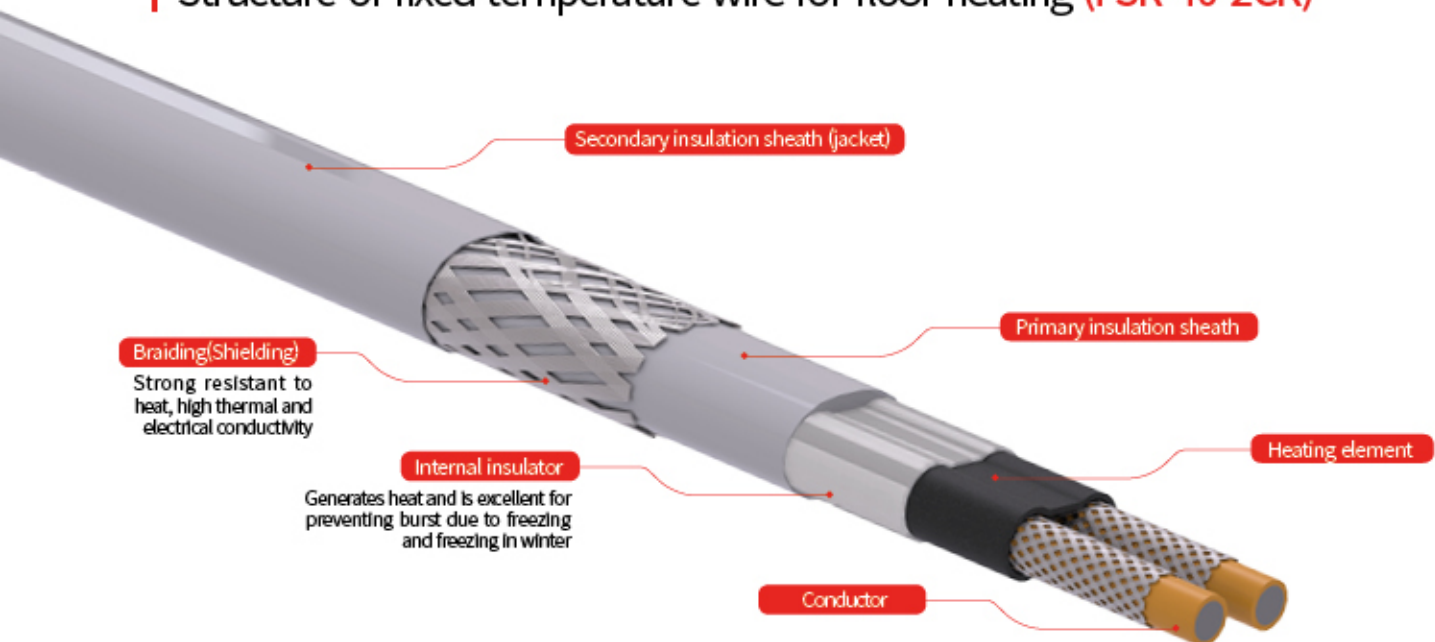
- 6 Secondary insulation sheath (jacket)**
Provides protection against external physical shock Polyolefin (CR Type), Fluorine resin (Teflon, CT Type)

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Can be installed anywhere you want

The fixed temperature wire for floor heating is economical because the use of space is consistent compared to ordinary heating cables, and safe because it does not generate electromagnetic waves. Also, there is greater freedom in choosing the finishing materials, hence, it is used mainly for floor heating purposes at locations such as hotel lobbies and indoor floor heating.

| Structure of fixed temperature wire for floor heating (FSR 40-2CR)



- 1 Conductor**
Supplies power
Tin-plated copper wire, asbestos wire, TA
- 2 Heating element**
Semiconductor heating element with PTC characteristics formulated with a semiconductive polymer material that forms an infinite parallel circuit
- 3 Internal insulator**
Helps prevent the reduction of heat generated, underwent a high-temperature heat treatment process
- 4 Braiding**
Protects the cable from external shocks, improves traction and shields electromagnetic waves.
- 5 Primary insulation sheath**
Provides mitigation against external thermal and physical shock Polyester (Bare Type)
- 6 Secondary insulation sheath (jacket)**
Provides protection against external physical shock Polyolefin (CR Type), Fluorine resin (Teflon,CT Type)

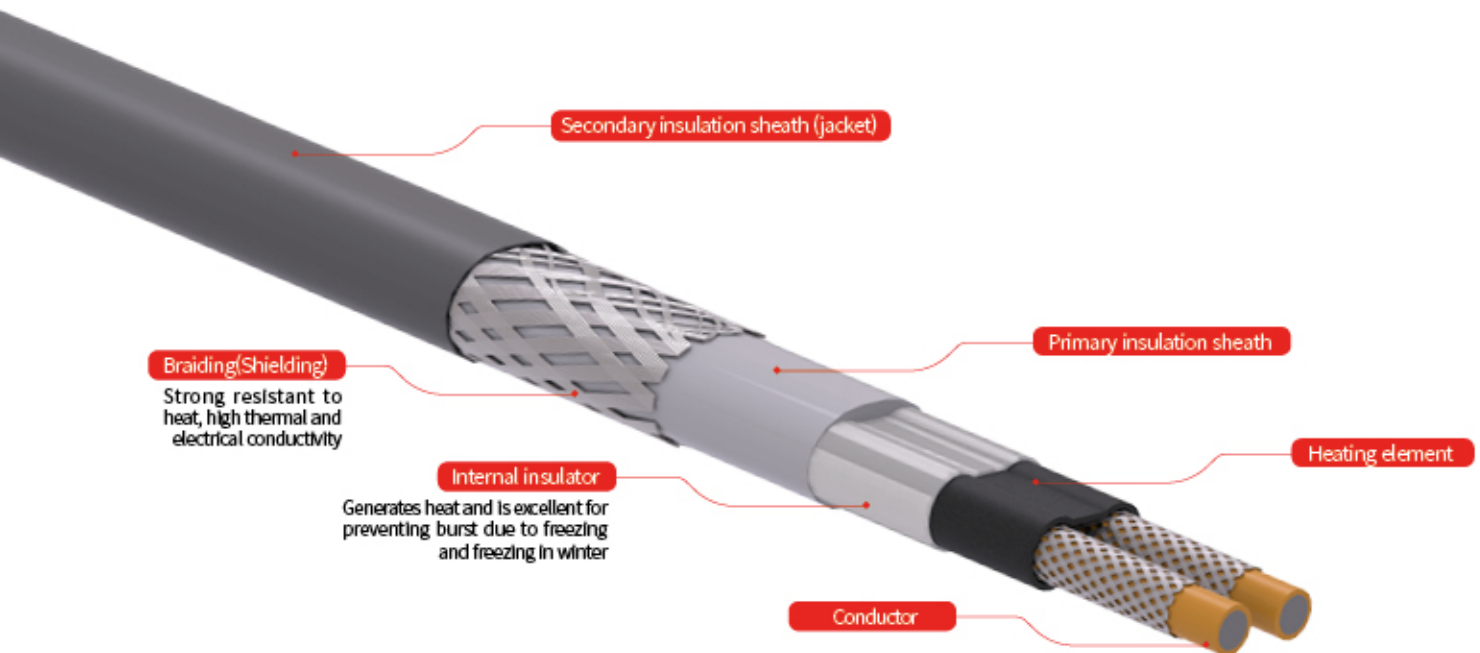
No problem in any environment! *Smart heating specialist*

Can be installed anywhere you want

The fixed temperature wire for roof snow melting has strong UV-resistant properties thanks to the addition of a UV stabilizer, which prevents the product from sunlight due to outside exposure, and hence, has excellent durability.

This cable is designed to minimize structural loss and various types of roof damage caused by snow loads.

| Structure of fixed temperature wire for roof snow melting (GR 40-2CR)



- 1 Conductor**
Supplies power
Tin-plated copper wire, asbestos wire, TA

- 2 Heating element**
Semiconductor heating element with PTC characteristics formulated with a semiconductive polymer material that forms an infinite parallel circuit

- 3 Internal insulator**
Helps prevent the reduction of heat generated, underwent a high-temperature heat treatment process

- 4 Braiding**
Protects the cable from external shocks, improves traction and shields electromagnetic waves.

- 5 Primary insulation sheath**
Provides mitigation against external thermal and physical shock Polyester (Bare Type)

- 6 Secondary insulation sheath (jacket)**
Provides protection against external physical shock Polyolefin (CR Type), Fluorine resin (Teflon, CT Type)

No problem in any environment! *Smart heating specialist*

Can be installed anywhere you want

The fixed temperature cable for melting snow and deicing is a cable to prevent damage to people and vehicles due to freezing of the road surface in winter, and can be installed at the entrance of roads and parking lots or in snow-prone areas. It can be used semi-permanently once constructed.

| Structure of fixed temperature wire for snow melting(FM 60-2CR)



- 1 Conductor**
Supplies power
Tin-plated copper wire, asbestos wire, TA

- 2 Heating element**
Semiconductor heating element with PTC characteristics formulated with a semiconductive polymer material that forms an infinite parallel circuit

- 3 Internal insulator**
Helps prevent the reduction of heat generated, underwent a high-temperature heat treatment process

- 4 Braiding**
Protects the cable from external shocks, improves traction and shields electromagnetic waves.

- 5 Primary insulation sheath**
Provides mitigation against external thermal and physical shock Polyester (Bare Type)

- 6 Secondary insulation sheath (jacket)**
Provides protection against external physical shock Polyolefin (CR Type), Fluorine resin (Teflon,CT Type)

A company you can trust! Enerpia

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Certificate Of Patent
(No. 10-1746775)



Letter of Q-Mark
designation



Russia GOST Standard



CU (Russia compulsory
certification)



CE



G-PASS certificate



Quality management
system certificate



Environmental management
system certificate



Certificate of the
company-affiliated
research institute



Letter of designating as
a promising export SME



Letter of pre-star
company designation



Membership card of
the Korea International
Trade Association



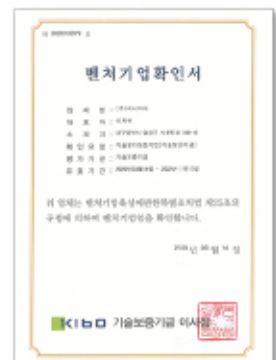
Design registration
certificate



Design Registration/
Inno-Biz



Certificate of the
company specialized in
material parts

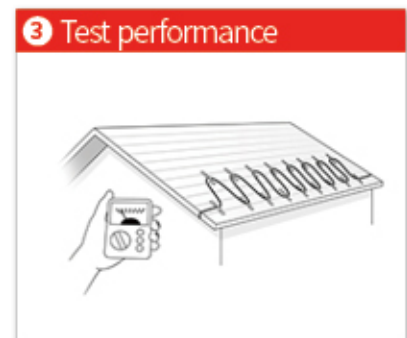


Venture company
certificate

The only Company in the Field That carries out the whole process of Manufacturing to Construction

| Construction method

Enerpia provides convenience to our customers with our total solution - from design to repairs after construction completion.



Enerpia is creating a safe space. *Smart heating specialist*

Safe winter with Enerpia Roof Snow Melting System!

The fixed temperature wire used for temperature maintenance minimizes various losses caused by snow in winter, and is an excellent and economically feasible heating wire with strong durability and a long lifespan.

| Installation recommended in various places.

Enerpia roof snow melting fixed temperature wire is suitable for places where **boiler installation is inconvenient, and where temperature maintenance is needed (roofs of various facilities such as houses, vinyl houses, warehouses and resorts)**.



Warehouse



Housing



Facilities







Resorts

The center of global connection!
It all starts here, in **Korea**.

Enerpia is a global company
that has **successfully entered
markets in 28 countries.**

Enerpia is a **global company** that has successfully entered markets in
28 countries including Russia and Europe.

Enerpia established local factories in  China,  Uzbekistan,  Kyrgyzstan,  Russia.



*Smart heating
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ENERPIA HEATING SYSTEM

A new revolution! An eco-friendly
heating system

A company completed with its
extensive experience and patented
technologies

Enerpia puts customers and the
environment first



*Smart heating
specialist*

ENERPIA HEATING SYSTEM

The only company in the industry that both
manufactures and constructs the product

Enerpia provides convenience to our
customers with our total solution - from design
to repairs after construction completion.



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