

ENERPIA strives to create a warm and safe world.









#### Increase the value of energy and the environment! High-efficiency, eco-friendly advanced heating system

Non-electromagnetic field heating line Enerpia Mat Cable No need to worry about electromagnetic waves

**70%** More than of heating costs can be reduced, compared to oil heating.

The product is made in consideration of the environment and health

Energia DIY Mat Cable, which always puts customers and the environment first, is a DIY kit specialized to make it easier and more convenient for self-installation in humid places, tile finishing materials, and verandas.



### Why Enerpia Mat cable?



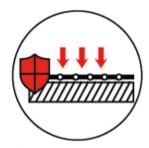
A product that implements ondol-style heating through an electric floor heating system.



All electrical energy is converted into heat for 100% use in actual heating.



Heat accumulation effect guarantees long heating with less energy usage.



Due to the mortar construction method it is safe against loads even when applied to a large space



A heating system that does not produce freeze, smoke, or gas.



No noise and excellent space management as there is no boiler room.



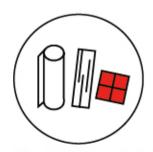
Blocking electromagnetic waves within heating cables Healthy and comfortable heating



Safe usage without additional maintenance.



DIY KIT product that anyone can easily install without facility piping



Any floor finishing materials can be used.



Reduces unnecessary heating costs by using partial heating.

### Enerpia mat cable **DIY kit** for floor heating

Provides the best quality at minimum cost. Specialized mat cable that anyone can install easily.

Specialized product that allows consumers to purchase DIY mat cables and install by themselves easily and conveniently.



#### | Specifications of Mat cable

| Product name          | Power Consumption | Length | Application area (W×L) |
|-----------------------|-------------------|--------|------------------------|
| Standard<br>(150W/M2) | 150Wh             | 10m    | 2×1m                   |
|                       | 225Wh             | 15m    | 2×1.5m                 |
|                       | 300Wh             | 20m    | 2×2m                   |
|                       | 375Wh             | 25m    | 2×2.5m                 |
|                       | 450Wh             | 30m    | 2×3m                   |
|                       | 525Wh             | 35m    | 2×3.5m                 |
|                       | 600Wh             | 40m    | 2×4m                   |
|                       | 675Wh             | 45m    | 2×4.5m                 |
|                       | 750Wh             | 50m    | 2×5m                   |
|                       | 900Wh             | 60m    | 2×6m                   |
|                       | 1,050Wh           | 70m    | 2×7m                   |
|                       | 1,200Wh           | 80m    | 2×8m                   |
|                       | 1,350Wh           | 90m    | 2×9m                   |
|                       | 1,500Wh           | 100m   | 2×10m                  |
|                       | 1,650Wh           | 110m   | 2×11m                  |
|                       | 1,800Wh           | 120m   | 2×12m                  |
|                       | 2,250Wh           | 150m   | 2×20m                  |

<sup>\*</sup> Depending on the application, the product structure can be customized. \* Temperature controller sold separately.

This is the color of the corresponding product cable.

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#### | Specifications of Mat cable

| Product name         | Power Consumption | Length | Application area (W×L) |
|----------------------|-------------------|--------|------------------------|
| Proheat<br>(170W/M2) | 170Wh             | 10m    | 2×1m                   |
|                      | 255Wh             | 15m    | 2×1.5m                 |
|                      | 340Wh             | 20m    | 2×2m                   |
|                      | 425Wh             | 25m    | 2×2.5m                 |
|                      | 510Wh             | 30m    | 2×3m                   |
|                      | 680Wh             | 40m    | 2×4m                   |
|                      | 850Wh             | 50m    | 2×5m                   |
|                      | 1.020Wh           | 60m    | 2×6m                   |
|                      | 1,190Wh           | 70m    | 2×7m                   |
|                      | 1,360Wh           | 80m    | 2×8m                   |
|                      | 1,530Wh           | 90m    | 2×9m                   |
|                      | 1,700Wh           | 100m   | 2×10m                  |
|                      | 2,040Wh           | 120m   | 2×12m                  |
|                      | 2,380Wh           | 140m   | 2×14m                  |
|                      | 2,720Wh           | 160m   | 2×16m                  |

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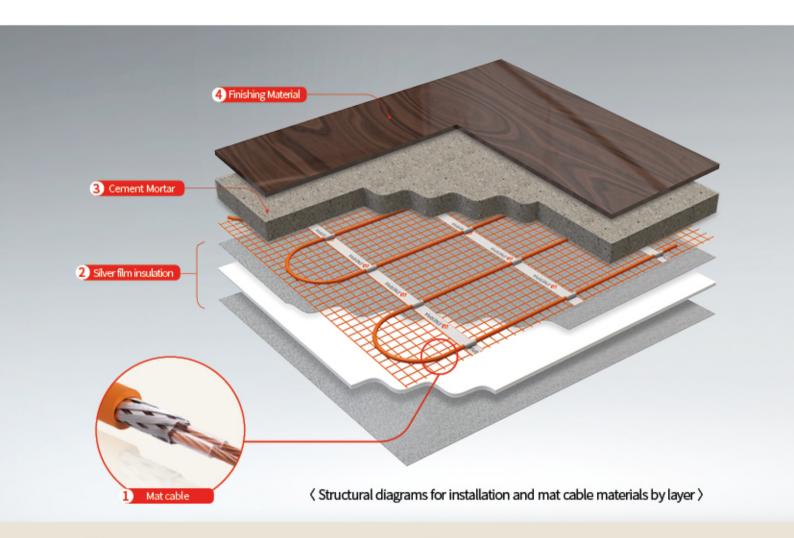
#### | Specifications of Mat cable

| Product name            | Power Consumption | Length | Application area (W×L) |
|-------------------------|-------------------|--------|------------------------|
|                         | 200Wh             | 10m    | 2×1m                   |
|                         | 300Wh             | 15m    | 2×1.5m                 |
|                         | 400Wh             | 20m    | 2×2m                   |
|                         | 500Wh             | 25m    | 2×2.5m                 |
|                         | 600Wh             | 30m    | 2×3m                   |
|                         | 700Wh             | 35m    | 2×3.5m                 |
|                         | 800Wh             | 40m    | 2×4m                   |
| Super heat<br>(200W/M2) | 900Wh             | 45m    | 2×4.5m                 |
|                         | 1,000Wh           | 50m    | 2×5m                   |
|                         | 1,200Wh           | 60m    | 2×6m                   |
|                         | 1,400Wh           | 70m    | 2×7m                   |
|                         | 1,600Wh           | 80m    | 2×8m                   |
|                         | 1,800Wh           | 90m    | 2×9m                   |
|                         | 2,000Wh           | 100m   | 2×10m                  |
|                         | 2,400Wh           | 120m   | 2×12m                  |
|                         | 2,800Wh           | 140m   | 2×14m                  |

<sup>\*</sup> Depending on the application, the product structure can be customized. \* Temperature controller sold separately.

This is the color of the corresponding product cable.

### No problem in any environment! Easy and simple to install anywhere you want



Heating cable

The cable is buried under the covering surface and is able to sense the temperature and humidity automatically during installation. This allows the cable to be used for various purposes in a variety of spaces such as floor heating in winter, snow melting equipment, freeze protection, and moisture prevention of electronic products.

Silver film insulation

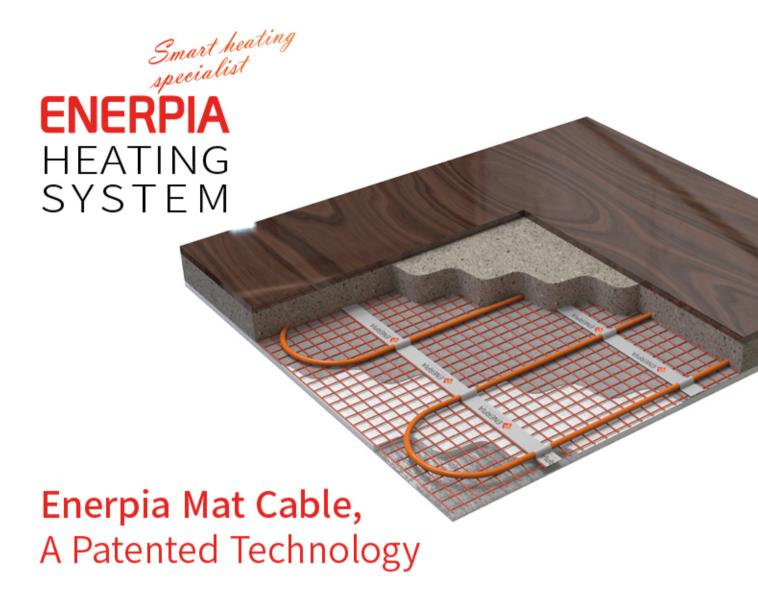
It ensures a high level of heat quantity and keeps the temperature warm and long.

Cement mortar

The thickness of the mortar layer may vary depending on the finishing material.

Finishing material

Finishing and decorative material on the external surface.







Certificate Of Patent (No. 10-1292327)



Utility Model (No. 20-0412561)





Russia GOST Standard



CE

# A company you can trust! Enerpia

Certificates of Enerpia



Certificate Of Patent (No. 10-1746775)



CE



Certificate of the company-affiliated research institute



Design registration certificate



Letter of O-Mark designation



G-PASS certificate



Letter of designating as a promising export SME



Design Registration/ Inno-Biz



Russia GOST Standard



Quality management system certificate



Letter of pre-star company designation



Certificate of the company specialized in material parts



CU (Russia compulsory certification)



Environmental management system certificate



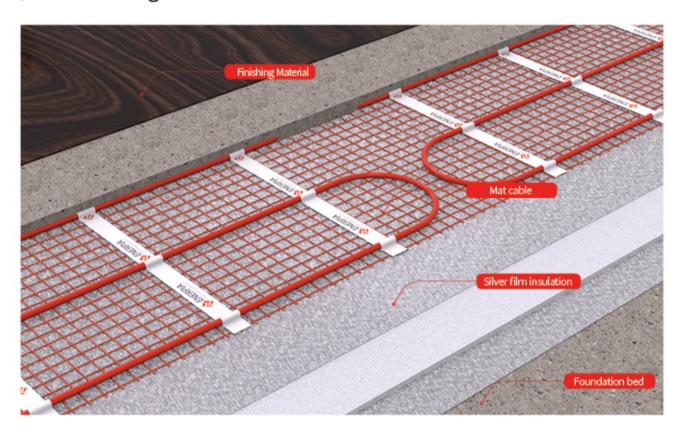
Membership card of the Korea International Trade Association



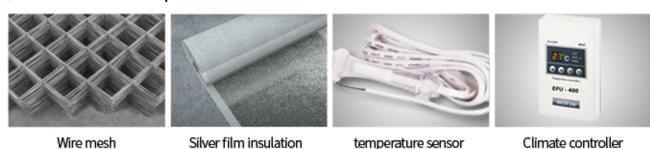
Venture company certificate

# Structural diagram for installation of Enerpia non-electromagnetic mat cable

#### Structural diagram for mat cable installation



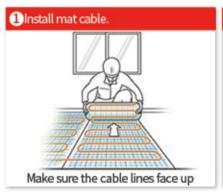
#### Main installation parts for mat cable

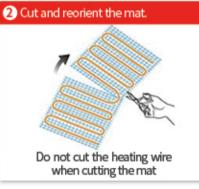


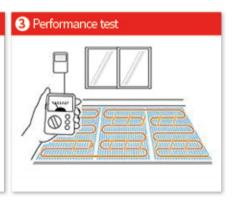


#### Construction method

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









# Simple operation, but many functions Enerpia-thermostat

It is a controller that can adjust temperature and time for the electric floor heating, and can also be changed into an individual type or communication type according to the capacity, facility, and site.

#### Recommended thermostat

|                    | UTH-170   | UTH-200   | UTH-300  |  |  |
|--------------------|---|---|--|--|--|
|                    | Wind    Signature   Compared   Compared   | UTH - 200  UTH - 200  G  One of the control of the | STREET ST |  |  |
| TYPE               | Digital Type  |   |  |  |  |
| Temperature range  | -20°C ~80°C<br>(Temperature range can be changed.)  | 0 °C ~ 80 °C<br>(Temperature range can be changed.)   | -20°C ~80°C<br>(Temperature range can be changed.)   |  |  |
| Number of circuits | Individual 1 circuit  | Individual 1 circuit  | Individual 2 circuit   |  |  |
| Size               | 70(W) X 120(H) X 27(D)  | 70(W) X 120(H) X 27(D)  | 120(W) X 120(H) X 34(D)  |  |  |
| Input power        | AC 85V ~ AC 265V (SMPS method)  |   |  |  |  |
| Allowable current  | 1 heating * 18A   | 1heating * 18A  | 2heating * 16A(total 32A)  |  |  |
| Load capacity      | 4KW   | 4KW   | 6KW  |  |  |
| Construction type  | Exposed type  |   |  |  |  |
| Display Type       | High luminance yellow FND (present temperature, set temperature display), LED (status display)  |   |  |  |  |
| Processor Type     | Sensor type (NTC 5K Ω) /Timer setting available/ Intensity type setting available/Control using a wireless remote control   | Sensor type (NTC 5K Ω) /Timer setting available/ Intensity type setting available/Control using a wireless remote control   | Sensor type (NTC 5K $\Omega$ ) / Timer setting available   |  |  |
| Option             | #1: Excess sensor (optional) #2: Error message alert function (Temperature range settings can be changed.), Output blocking #3: Excess sensor (An output blocking error message is displayed if excess occurs.) | #1: Excess sensor (optional) #2: Error message alert function (Temperature range settings can be changed.), Output blocking #3: Excess sensor (An output blocking error message is displayed if excess occurs.)   | #1: When an error occurs A warning buzzer sound is generated.  #2: Excess sensor (optional)  #3: Error message generation function (Temperature range setting can be changed.), output blocking  #4: Excess prevention sensor is attached inside the regulator (overheating prevention)  |  |  |



# Enerpia continues to make warm spaces.

Smart heating specialist

Keep your floor and space warm while reducing costs with Enerpia electric floor heating. The mat cable has a heat storage effect, and the longer it is used, the more economical it becomes.

Installation recommended in various places.

A suitable place to install the DIY mat cable is in humid places, tile finishing materials, and verandas.



Lecture rooms



Apartments/houses



Bathroom





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

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