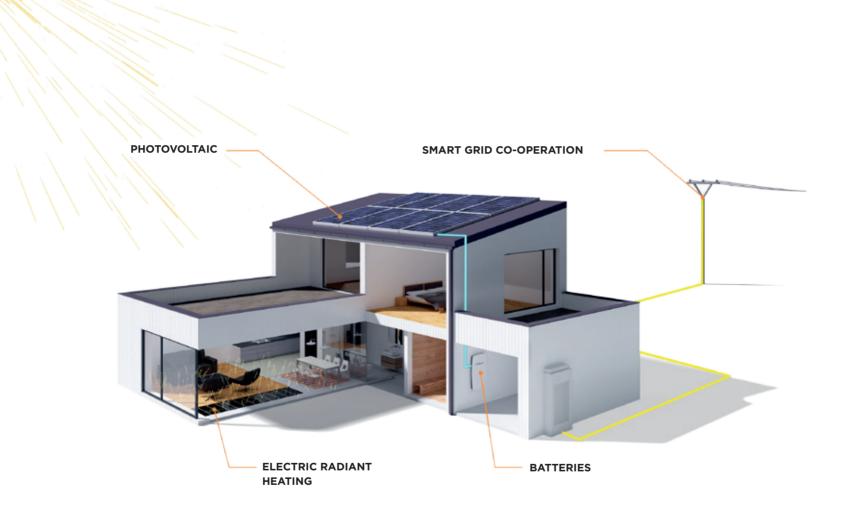


## **Radiant heating**

The future is electric

Manufacturer since 1975





## **Radiant heating**

The future is electric

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i

## 

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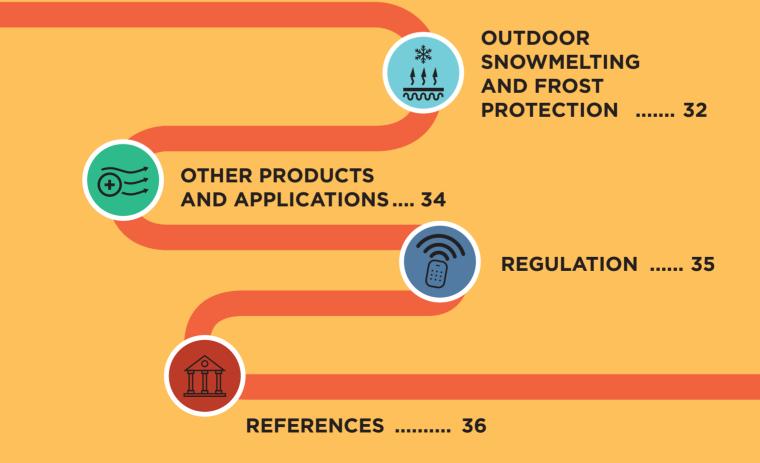
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# i INTRO

## CEILHIT was founded in 1975 as the first heating cable manufacturer in Spain.

Our dilated experience has given us a strong presence both nationally and internationally, through our distributors and installation companies with an extensive know-how, providing the customers a high-quality technical support.

In 2010, Ceilhit joins Fenix Holding Group, one of the largest European producers of electric surface heating systems. The group currently exports to over 70 countries worldwide, a wide range of products as heating cables and films for underfloor and ceiling heating, demisting films for mirrors, radiant heating panels, frost protection and snow-melting systems, as well as a widespread range of regulation systems developed specifically for each application. Since 2016, the group has been involved in developing smart energy management systems so the buildings become part of a smart electric grid.

Our products offer valuable solutions to a wide range of applications:

- Residential area
- Tertiary sector: Day care centers, shops, kindergartens, museums, churches, hotels, sport centers, terraces.
- Industrial and agriculture sector.
- Damp environment: Bathrooms, saunas, cold chambers.
- Frost protection and snow melting: Pipes, roofs, walkways, entrance ramps.





## **FENIX Holding structure**



SPAIN CEILHIT SLU Production and trading company



**CZECH REPUBLIC FENIX LTD** Production company

FENIX TRADING SRO Trading company

FENIX GROUP AS Mother company

AERS Technological center



SLOVAKIA FENIX SLOVENSKO SRO Production and trading company



**FRANCE** ACSO Production and trading company



UNITED KINGDOM FLEXEL INTERNATIONAL LTD Production and trading company

**DEMISTA LTD** Production company

GERMANY FENIX DEUTSCHLAND GMBH Trading company



NORWAY KONSULENT TEAM AS Trading company



POLAND FENIX POLSKA Trading company

## ADVANTAGES OF ELECTRIC RADIANT HEATING



- Maximum comfort, homogeneous heat
- Ideal temperature distribution
- Energetically efficient systems
- Reduced costs
- Lower initial investment
- Lower running costs and separated area regulation
- No maintenance
- Large lifespan
- Safe, without any risks of fire neither leaks

- Hygienic and healthy, minimum dusts and allergenic particles circulation
- Doesn't consume oxygen, neither emit smokes, nor smells
- Sustainable system compatible with renewable energies
- Prepared for an electric and clean future
- Invisible and integrated within the structure, leaving all walls available for furniture
- · Ideal for renovation, minimum thickness
- · Aesthetic panels to suit any interiors



## WHY SHOULD YOU CHOOSE CEILHIT RADIANT HEATING SOLUTIONS?



For our dilated experience and record in the sector, we are manufacturer since 1975. Make a wise choice, rely on experience and stability. Large lifespan of our products. Installations from 40 years ago, are still running perfectly.



10 years guarantee in any of our floor integrated solutions



Large range of products that can fit any of your requirements.



Short lead time



Quotation without costs, neither commitment. Direct and personal contact



Technical support



# UNDERFLOOR HEATING

Ideal for both **new construction** and **renovation**, where the available thickness to fit the heating system is limited. Thanks to special thermal insulation and reduced thickness of the heating elements, the electric underfloor system can even be installed over the existing floor pavement, both with heating cables (total thickness < 1,5 cm) or heating film (total thickness < 1 cm).

In case of partial renovation, being controlled independently per room, the system can be installed only in the chosen renovated areas. For instance, while renovating a bathroom or a kitchen and thanks to each room regulation through independent thermostat.

The system is completely integrated within the floor and easy to install. It doesn't require any boiler installation, neither pipes, neither radiators, avoiding therefore any further maintenance on it. It allows mainly two types of running mode:

**Main heating system:** The heating system is aimed to maintain the room temperature at the requested temperature. The regulation triggers the system according to the room temperature vs the setup temperature and uses the floor temperature as a limiting factor to keep a comfortable and healthy floor temperature. The standard installed output varies from 60 to 120W/ m<sup>2</sup>, depending on the type of house and the heat losses.

**Auxiliary heating system / Templated floor:** The heating system is aimed to maintain the floor at a comfortable temperature. Very often used in bathrooms to avoid the cold floor feeling while stepping barefoot on tiles. The standard installed output is higher, normally about 150W/m<sup>2</sup>, to get a fast dynamic. The regulation triggers the system according to the floor temperature to maintain it at a comfortable temperature even if the room temperature increases (for instance with vapor while taking shower).



## HEATING **MATS**





#### New construction and renovation

Below tiles, marbles or other floor pavements with a minimum thickness from 12 to 20 mm (including the thermal insulation)

Main or auxiliary heating system

Easy and fast installation by unrolling the mat, as the heating cable is already fixed at the correct pattern on a fiber glass mesh support.



We manufacture a wide range of heating mats to fit the needs of any areas. We manufacture a wide range of heating mats to fit the needs of any areas.

**Width :** 25 cm for an easy installation in reduced areas (bathrooms), 50 and 70 cm for a faster installation in corridors and large rooms.

**Standard outputs :** Surface output 60-85-100-115-120-150 and 180W/m<sup>2</sup>

From 60W/m<sup>2</sup> for new construction, well insulated houses or low energy consumption buildings, up to 180W/m<sup>2</sup> for small bathroom where the available surface (floor surface discounting furniture, bathtubs, etc...) is reduced.

The loop cable distance on the supporting mesh varies from 8 to 12 cm for a perfect heat distribution when located right below the floor pavement and up to 18 cm for semi-storage system (3-5 cm below floor pavement).



) No electromagnetic emission



Suitable for damp environment IP 67



Installation with cement or screed



Elements with standard length. Never cut the heating cable.





## HEATING CABLE

New construction and renovation

Below tiles, marbles or other floor pavements with a minimum thickness from 12 to 20 mm (including the thermal insulation)

Main or auxiliary heating system

Standard range: 17.9 W/ml



Allows to better adjust the heating element, in narrow or irregular areas, fixed with fastening strips.





- No electromagnetic emission
- ) Suitable for damp environment IP 67



Safe, flame retardant



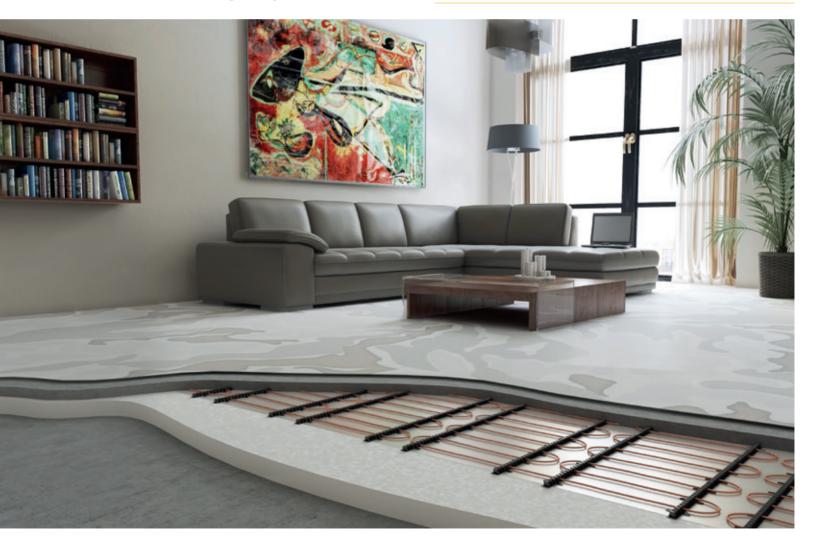
Installation with cement or screed



Fixed to floor with fastening strips



Elements with standard length. Never cut the heating cable. Allows to better adjust the location in small and difficult areas.



## ALUMINUM MAT



Below laminated floor, ideal for renovation with a minimum thickness of 8 mm including the 6mm thermal insulation

Easy, fast and clean installation (no cement)

Main or auxiliary heating system

Standard range

Output 80 W/m<sup>2</sup> and 140 W/m<sup>2</sup>

Width 50 cm

) No electromagnetic emission U





Dry installation



ᡐ

) Suitable for damp environment IP 67



Elements with standard length. Never cut the heating cable.



## **HEATING FILM**

Below laminated floor, ideal for renovation with a minimum thickness of 8 mm including the 6mm thermal insulation. Ideal for ceiling heating with plasterboard ceiling Easy, fast and clean installation (no cement)

Main or auxiliary heating system

Standard range Floor Output 80 - 130 - 150 - 200 W/m<sup>2</sup> Width 30 - 50 - 60 - 100 cm

**Standard range Ceiling Output** 140 - 200 W/m<sup>2</sup> Width 40 - 50 cm



No electromagnetic emission



Dry installation

Strips to be cut at the required size. Allows cutting and connecting by the installers.

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## ACCESSORIES UNDERFLOOR HEATING INSTALLATION

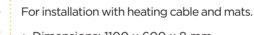
The thermal insulation is a very important part in the installation of underfloor heating in order to get an efficient system, minimizing energy loss.

When renovating a house, the total thickness of the heating system is almost always a critical point. Ceilhit provides thermal insulation with limited thickness and high performance, to get the required insulation with a total thickness from 8 to 15 mm.

#### XPS Insulation, screed covered 6 or 10 mm

Extruded polystyrene boards with screed covering layer on both sides reinforced with fibre glass. For installation with heating cable and mats.

- Dimensions: 1200 x 600 x 6 / 10 mm
- Thermal conductivity: 0,033 W/m.K



8 mm

Woodfibre insulation,

- Dimensions: 1100 x 600 x 8 mm
- Thermal conductivity: 0,046 W/m.K

#### **XPS** Insulation, 6 mm

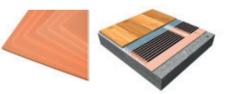
For installation with aluminium mats and heating film

- Dimensions: 1000 x 500 x 6 mm
- Thermal conductivity: 0,03 W/m.K









Wide range of accessories for an easier installation of underfloor heating for heating cable, mat or film.

#### Perimeter expansion strip - 5mm

Installation on the room perimeter with cables and mats

Avoid heat loss and absorb the dilatations



#### **Polyethylene steam barrier**

Installation over the heating film



#### **Fastening strips**

For an easy installation of heating cables. Safe and regular fixing.





## APPLICATIONS AND ADVANTAGES OF RADIANT PANELS

- Maximum comfort, homogeneous heat
- Ideal temperature distribution and adjustable per area
- Energetically efficient systems
- Reduced costs Lower initial investment
- Lower running costs and separated area regulation
- No maintenance
- Large lifespan
- Safe, without any risks of fire neither leaks

- Hygienic and healthy, minimum dusts and allergenic particles circulation
- · Doesn't consume oxygen, neither emit smokes, nor smells
- Sustainable system compatible with renewable energies
- Prepared for an electric and clean future
- Aesthetic panels to suit any interiors
- Specific solutions for all sectors









### **U & U BASIC PANELS**

Their exclusive surface finish and **uniform temperature distribution** maximize the radiant component of the heat transfer and ensure a wide heat distribution within the room.

Offices, shops, residential sector, tertiary or industrial sector.

## **GR, G, GS, STONE & CERAMIC PANELS**

Evolution of the U panels with different surface finishes, dimensions and output to **provide a solution to any needs and aesthetic interiors.** 

Possibility to turn them into a functional towel dryer or to personalize with HD printing

Developed for agricultural and industrial applications with hi-

gher requirements. Higher IP coverage and/or E.ExII non explo-

Offices, hotels, residential and tertiary sectors

**IN/IKP PANELS** 

sive version for hazardous areas.

### **K+ PANELS**

**Ideal for auxiliary heating** in areas with deficient primary heating or for colder areas. Same surface finish as U panel for an optimal heat distribution.

Residential, tertiary or industrial sector

## S+ HIGH TEMPERATURE PANELS

**Heating of large volume with high ceiling** as industrial or agriculture halls, warehouses, exhibitions centres, churches, or any building with ceiling up to 10 m where convection systems are useless.

Tertiary and industrial sectors, as well as semi open outdoors.

## Tertiary and industrial sectors

## **TERRACE HEATERS PANELS**

Ideal solution to heat semi-open spaces

Residential sector, restaurants, hotels, terrace, smoking areas, etc...

### **CH PANELS**

**Heating of church pews areas,** complement of K+ panel, both of them being the most efficient solutions for this application. Located below the pews, it is efficient without affecting the church aesthetic.

# DANELS UBASIC

Maximum heat distribution by radiant heating. Uniform temperature within the room.

Available in two versions

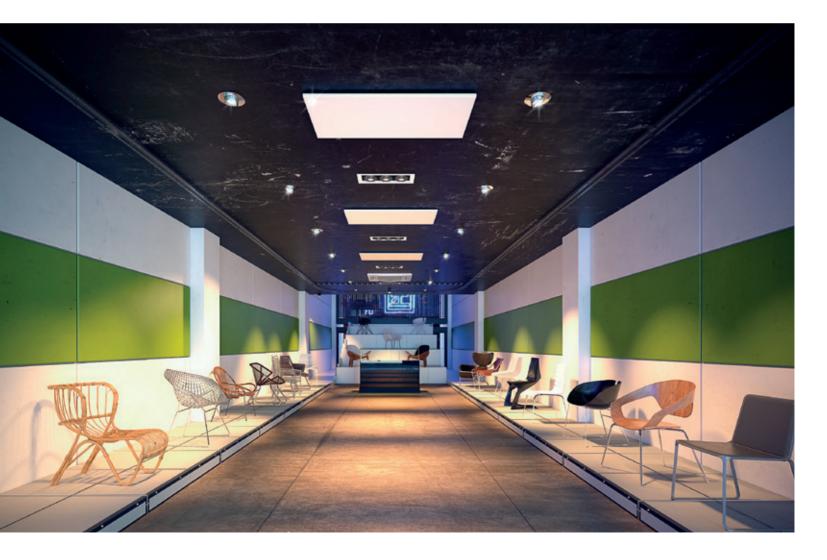
**U (UNIVERSAL)** to be mounted directly onto ceiling or into suspended ceiling (60×60 cm or 120×60 cm)

Output range : 300 - 600 - 700 - 850 W

**U+ BASIC** designed to be located on the walls, with a smother finish for an easier cleaning.

Equipped with a thermofuse to avoid overheating. Ideal for kindergartens or geriatric centers,...

Output range : 300 - 600 - 850 W.







## Ideal for offices and administrative buildings

Successful for more than 30 years on the market

Unique state of the art patented technologies for an optimum radiant heat.



# glass panel

Combining efficiency and functionality with an attractive and timeless design, to fit modern interiors or reception room with high design purity.

Wall mounted (horizontal or vertical) or placed on the floor with a set of optional supports.

Output range : 300 - 500 - 700 - 900 W

Colours : white, black, red, pistachio green, mirror.





# GLASS PANEL WITH FRAME

Unique product from an aesthetic point of view, allying the radiant heating with the natural beauty of glass. With an aluminium frame, a slime profile and versatile fixtures for installation on wall or ceiling.

Output range : 300, 600, y 850 W.

Colours : white, black, mirror, HD printing

Available in a E version with a plastic powder coating front plate instead of glass





GS panel combines the elegant design of frameless GR panels with a slim profile, and a reduced weight for installation both on wall and ceiling.

Output range : 300 - 500 - 600 - 850 W

**Narrow version :** 500 W and 40 cm wide to fit any bathroom with limited available space.

**Colours** : white, black, mirror, wine red, basalt, platinum grey, graphite and HD printing



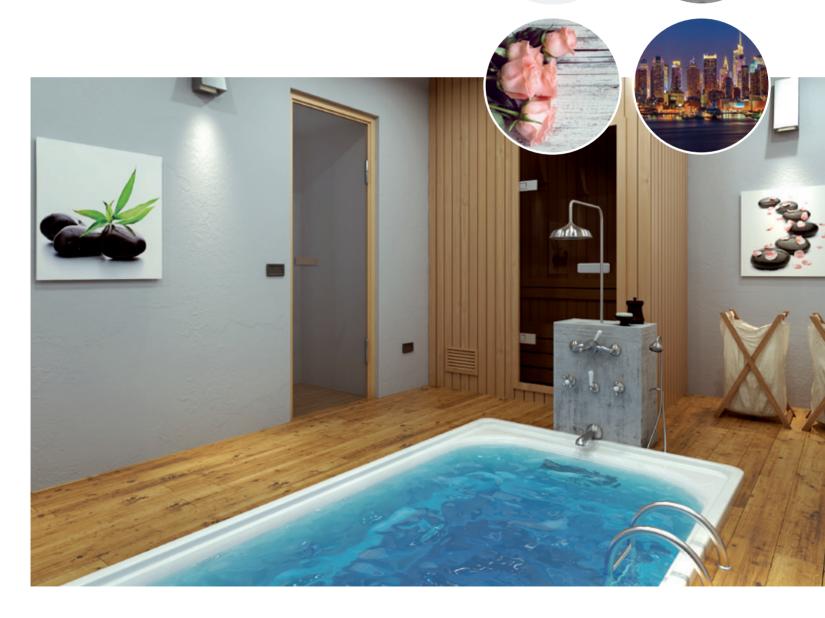


# GLASS PANEL



## Natural beauty of the glass with a high definition image printed into our G and GS panels

Choose from the wide range of images from our gallery, or customize your heating panel with your own high definition image (corporative image, own design, HD picture, etc...).



# PANEL **STONE**

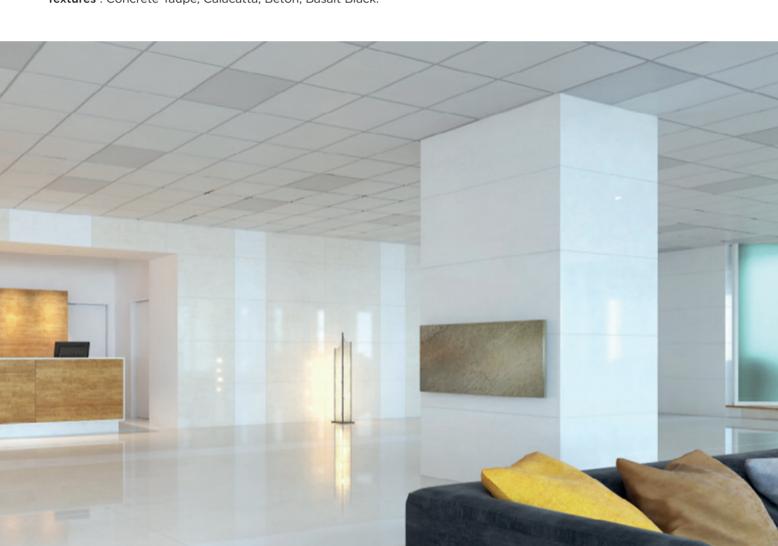


Combine the efficiency and comfort of electric radiant heating with the beauty of sintered ceramic material, with trendy textures imitating perfectly concrete, beton or natural rocks. It will suit literally each and every place: houses, hotels, offices.

The sintered stone presents outstanding properties (100% natural, resistant to scratching, waterproof, easy to clean, hygienic, heat radiation) that provides to this range the maximum quality.

Output range : 300 - 500 - 700 - 1050 W

Textures : Concrete Taupe, Calacatta, Beton, Basalt Black.





# PANEL **CERAMIC**

#### Radiant panels with elegant and ceramic finishes which perfectly

imitate the look of natural stone.

Can be fitted with towel rail

**Output :** 400 W

Colors: Beige, coal, cream, marrone, rosso.



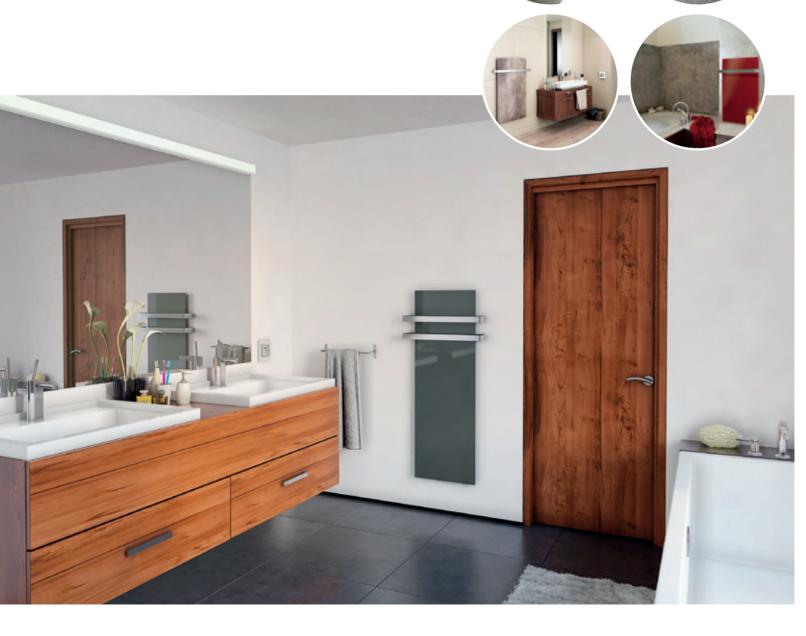




## TOWEL DRYERS

Enjoy the comfort and elegance of our panels, turning them into functional towel dryers, adding the towel rail accessory to our models GR, GS, STONE and CERAMIC.

Simple or double rail.



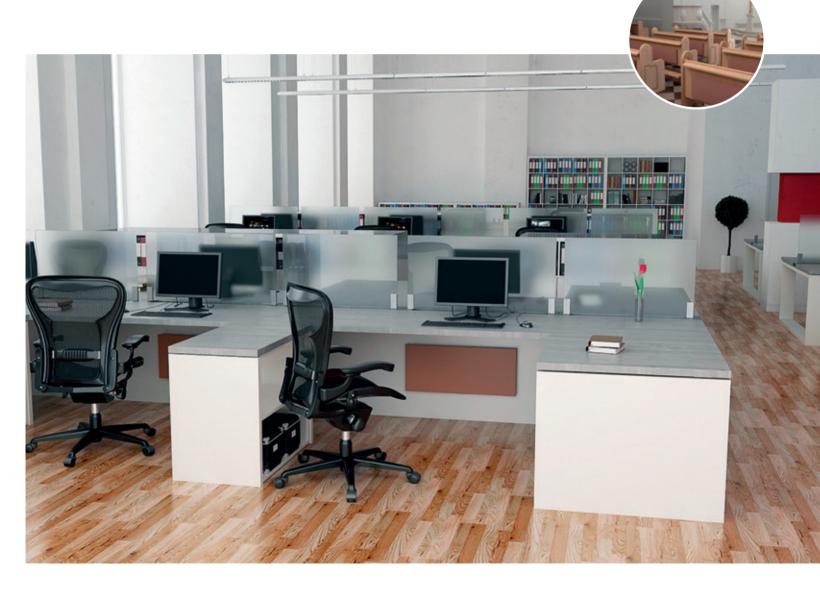
Designed as auxiliary heating or for very localized heating, with low output and minimum consumption. Installation on wall, desks, cashiers, hotel or shop receptions, church pews, working station, etc...

Provides a comfortable and gentle heat.

Output range : 100, 200, 270, 330 and 400 W

Standard colour in white or brown. Other colours available on order.





Developed for agricultural and industrial applications. With a higher IP coverage and/or with E.ExII non-explosive version to be used in hazardous areas.

To bring the comfort and advantages of radiant heating to areas with higher level of dusts or where a non-explosive version is required : greenhouses, workshops, livestock facilities.

**Output range :** 700 - 750 W

Standard colour : White. Other colours available on order





The S+ high temperature panels are designed mainly to heat large volume with high ceiling areas as industrial or agricultural halls, warehouses, exhibitions centres, churches, or any building with ceiling from 3.5 up to 10 m.

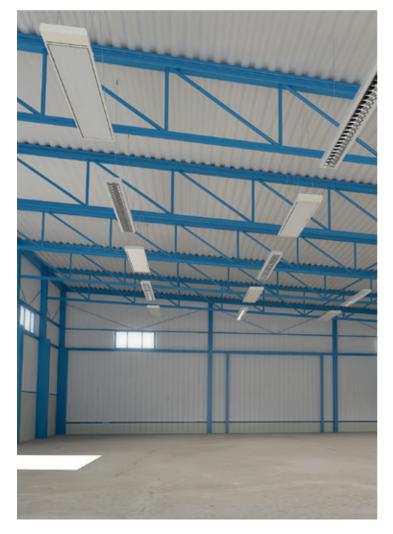
Composed from one to three aluminium heating elements with a special electrochemical silicating surface finish that increases the radiant components of the heat transfer. This patented technology ensures a unique and unmatched emissivity close to the characteristics of a black body.



Available in an **Anticor** version, corrosion-proof, for spaces with demanding conditions and higher humidity (agricultural structures, washing facilities, sea side,...)

Available also in a reduced dimension version (650 mm long) to fit them in areas with limited available space.

#### Output range: Short: 600 and 850 W Normal/Anticor: 900, 1200, 1800, 2400, 3000 and 3600 W





Ideal solution for the zonal heating of winter gardens, enclosed and roofed balconies and terraces, garden tents, churches, ... Suitable for restaurants, hotels, smoking areas or residential terraces.

Its design and black colour fits in any environment. No lights, neither disturbing smells or smokes.

Provide a gentle heat

Tiltable brackets included to focus the heat to the right place.

**Output:** 1000 and 1500 W

IJ

Ideal solution for the zonal heating semi-open spaces from residential sector, restaurants, hotels, smoking areas, ...



The CH panels have been especially designed for the heating of church pews, with the heater being placed below the pew seat. Together with the K+ panels, they are the most efficient solutions for this zonal heating application. Their black matt colour blend in very well with the dark wood of the pews, without affecting the church aesthetic.

Fast inertia for a punctual use without needs of heating the whole church.

Available in three different sizes and outputs, 260W, 400 and 600W to fit any pew dimension. Include a protective grid.



Located below the pew seats, it doesn't affect the church aesthetic.



"

## **OUTDOOR SNOUTDOOR SNOUTDOOR DE-ICING / FROST PROTECTION**



Prevent both ice formation and snow accumulation. The system works automatically only when needed by monitoring both outdoor temperature and moisture.

#### Frost protection of pipes.

Heating cable : parking ramps, stairs, walkways loading areas, soccer fields, as well as roofs, gutters, pipes, agriculture, cold chambers...

Heating mat : For an easier installation in outdoor areas.

EASY TO INSTALL - NO MAINTENANCE

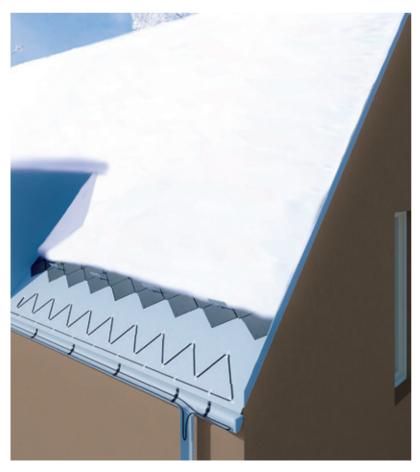
Standard range cable : 8-17-22-25-33 W/m

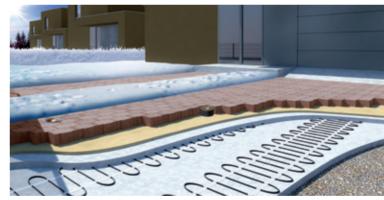
Standard range mat : 330  $W/m^2$ 

PFP Cable : 12W/m with integrated thermostat for pipes













## OTHER PRODUCTS AND APPLICATIONS

## DEMISTING FILM

The easiest and most effective way to prevent bathroom mirrors from misting. Provides a perfect defogging in all environment at a very low operating cost.

### HEATING CARPETS

Taking advantage of our know-how on radiant heating, we developed a range of heating carpets to improve comfort in some specific situations. Doesn't require any installation. Removable system. For an effortless snow melting in a specific reduced area or ensure comfortable hot feet for living or working areas.

### VIVARIUM AND TERRARIUM HEATING FILMS

Heating films especially designed to heat vivariums and terrariums recreating natural environment for reptiles and rodents.





Regulation is an essential and very important part of any heating system, to ensure an optimum comfort in any room at any time, minimizing the energy consumption to reduce operating costs without affecting comfort.

Our thermostats include the latest technologies, with touchscreen screen and user-friendly interface. They feature temperature 7-days parametrizable programs to adjust individually temperature at any time of the week in each room. Programs

CIOECUD

can be adjusted directly on the thermostat or through a mobile device for the connected models. They feature various convenient settings and programming options.

Regulation per room or areas, according to room temperature and/or floor temperature limitation at  $26-29^{\circ}C$  for optimal comfort and conservation of sensitive floor pavements, and up to  $35^{\circ}C$  in bathrooms for templated floor.

## TFT - WIFI.

Digital thermostat with touchscreen





- Large 2.8" colour touchscreen
- Two colours screen background (White/black)
- Intuitive and easy programming
- Monitorization of energy consumption with graphs
- Multiple set-up temperature levels
- Open-window function
- Screen lockout option
- Room integrated probe: Temperature from 0 to 40°C
- Floor probe included (3m long): Max. Temperature 35°C
- Possibility to connect an extra auxiliary sensor
- Includes 17 languages
- WIFI CONNEXION: Control through App

### **TFT.** Digital thermostat with touchscreen



- Large 2.8" colour touchscreen
- Full programming
- Four colours screen background (White/Red/Blue/Green)
- Intuitive and easy programming
- Monitorization of energy consumption with graphs
- Multiple set-up temperature levels
- Open-window function
- Screen lockout option
- Possibility to connect an extra auxiliary sensor

## V SERIE.

Wireless regulation and WIFI Central Unit



#### Central Unit WIFI V24

- Large 2.8" colour touchscreen
- Can control the whole house (up to 24 zones)

#### Wireless thermostat V22

- Week programming
- Wireless bidirectional communication with V23 and V25 (up to 4 units)
- Can be operated independently or as part of central system with V24

#### Wireless receiver V23

- Receiver normally controlled by V22
- Optional floor probe
- Placement in KU68 wiring box

**Other devices:** Remote control / Plug socket receiver



## REFERENCES AND EMBLEMATIC PROJECTS

- Family houses
- Apartments
- Education centres
- Community buildings
- Agricultural/Industrial halls
- Dav care centres

- Hotels
- Churches
- Emblematic buildings



LUXURY - K2 HOTEL Courchevel France



**MNAC** Museum Barcelona



AGBAR TOWER Offices Barcelona



BASÍLICA DE SAN MARCO Venecia Italia



HYATT PARK HOTEL Paris Vendome France



SAGRADA FAMILIA Barcelona



INTEMPO BUILDING Benidorm Spain



**ZOO** Barcelona



**SNOWMELTING** Heliport hospitals

OTHER PROJECTS AND COLLABORATIONS:

Mercadona (Supermarket)Ahorramás (Supermarket)

Aguas del Maestrazgo (Snowmelting)

• Fuengirola zoo

- Bioparc
- Melia hotels

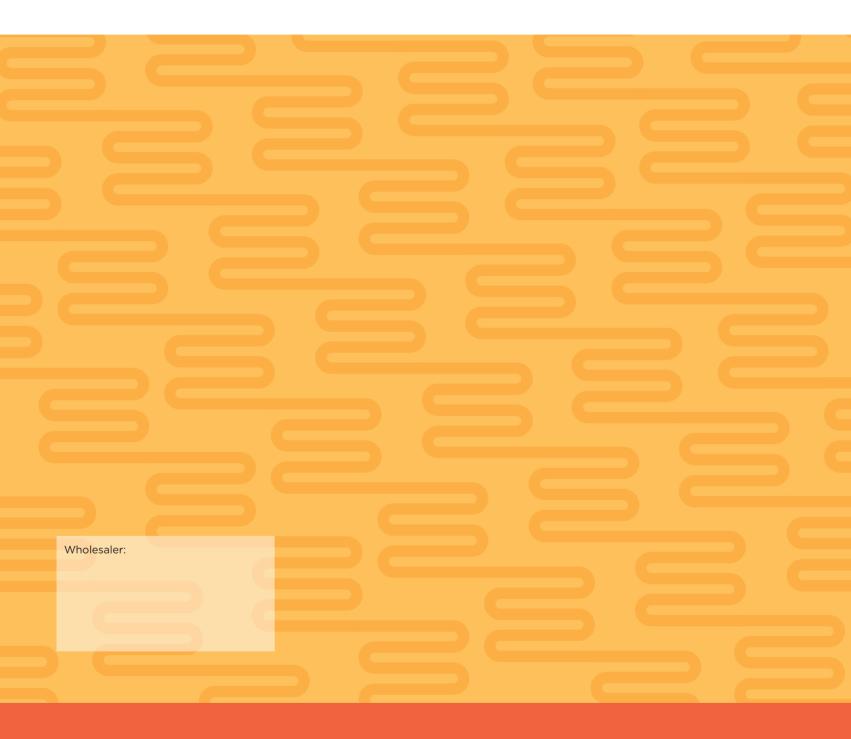
Product design CEILHIT SLU

**Concept, design and printing** Otzarreta Think & Make www.otzarreta.com

CEI0845548BB



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