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PERFECTLY HEATED VIA **GLASS, HIGH TEMPERATURE INFRARED PANELS**

Cost-effective and unique solution that guarantees 100% heating-up of the space. The product is manufactured and patented in the EU.

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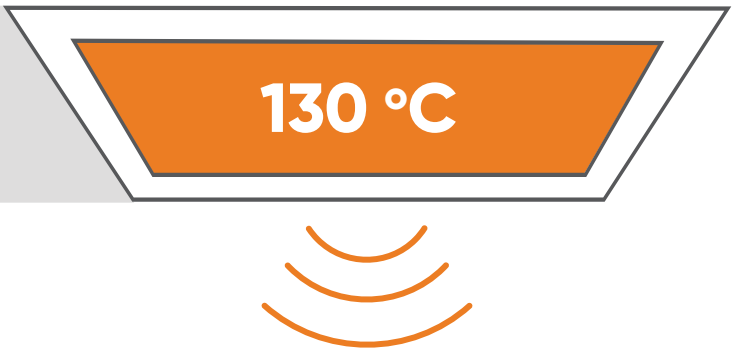
Glass, high temperature infrared panels based solution

BENEFITS



Cost-effective

This solution is characterized by highly cost-effective operation – in average from 30 to 50% lower on expenses, compared to standard types of heating. High heating capacity enables economical self-regulation of the heating system.

Simple assembly

Compared to other types of heating (such as central heating with radiators, or floor heating, eventually heat pump), presented solution is by far the simplest type in regards of its installation. While installing any of the above types of heating takes days to weeks, installing of this system takes a fraction of that time. The assembly costs are thus incomparably lower.

Exceptional lifespan. No need for maintenance.

The lifespan of these heating elements is calculated in decades. Maintenance interventions are exceptional, and if they occur, they are related to commonly used accessories such as wiring or thermostats.

Suitable for allergy sufferers. Reducing the risk of infections transmission. Does not dry out the air on the premises.

The technology, does not support air swirling , and is very suitable for people sensitive to dust particles or other allergens in the air. According to a study carried out at the Hermann Rietschel Institute, it was concluded that radiant heating systems can significantly reduce the risk of aerosol-borne infections (droplet disease), such as Covid-19. This is mainly because radiant heating systems transfer heat using electromagnetic waves, commonly called infrared rays. When they hit a solid material, they turn into heat. The heat is thus transferred to the surrounding space without any air movement. It is a very suitable solution for the client desiring to preserve the natural humidity of the interior air, and at the same time, for example, solve the damp walls.

Unique technology, otherwise unavailable.

Presented technology is not available in retail chains or e-shops. It is tailor-made and delivered only via contractual partner.

Client friendly approach: Mobile regulation

The technology allows full remote control by the client.

Full-scale heating

instead of additional heating provided by lower temperature emitters.

Many people praise additional heating or re-heating provided by convectional infrafed panels. Solution based on glass, high temperature radiant panels provides for full-scope heating with no demand for additional heaters such as electric direct heaters, gas hot air systems or else. Full scope heating ability is the essential attribute of this solution.

Conventional infrared panels

The panel emits the amount of heat proportional to its nominal power (e.g. 800W).

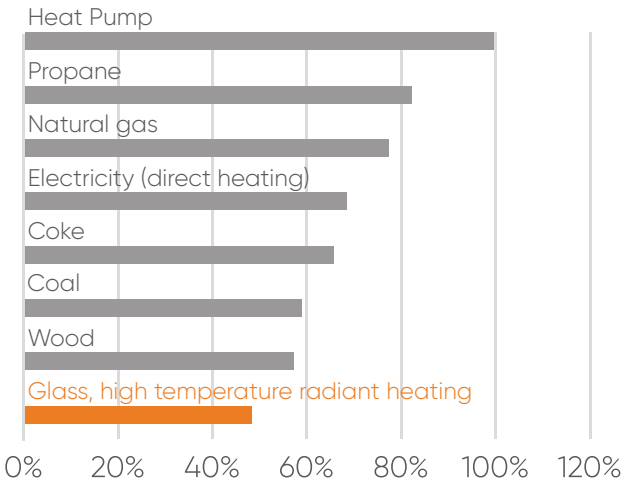
Glass, high temperature radiant panels

With the same nominal power (e.g. 800W), the panel emits significantly more heat per unit of time.

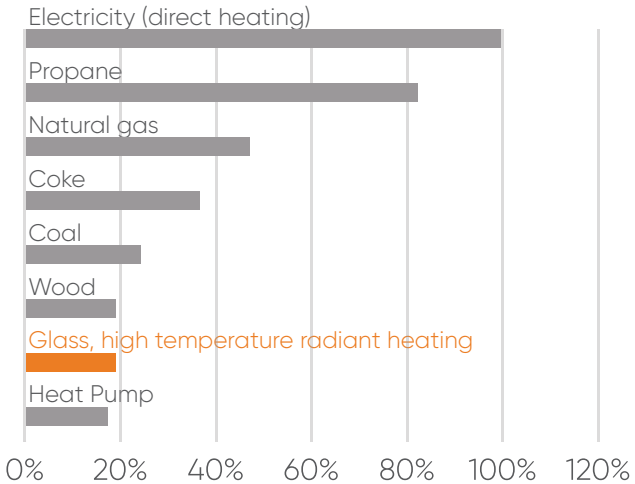
Cost-effective solution without a need for natural gas.

There is not need for natural gas. The system is highly effective even though being supplied by electricity, either from the grid or from renewable sources. At current price settings, the installation and operating costs, are highly advantageous and much more effective.

Interior heating
investment costs



Interior heating
operating costs



Unique technology of extraordinary lifespan

At the moment, there is not known any other manufacturer of this type of radiant panels achieving the highest performance characteristics in terms of temperature (up to 135 °C on the surface of the panel, compared to common products reaching approx. 60-90 °C) and the **emission of heat rays energy (the highest known ratio of emitted energy per unit of surface (W/m2)**. These characteristics make this product the ultimate top in the area of indoor infrared heaters. Operation of the panel is safe despite its high surface temperature. The surface is made of tempered glass, protecting from any potential ignition or human touch. As part of the physical calculations, there has been calculated the lifetime of the resistor (product core) with silicon fiber to be 100 years. For practical reasons, however, we state its lifespan as around 30-50 years, while the complete product does not only consist of its core - resistor, but also cabling, frame, thermostat, software equipment, or LED lighting, components with shorter lifespan.

Exceptionality of the glass, high temperature radiant heating

Any type of heating system needs a heat source. The stronger and more powerful the heat source is, the greater power capacity and reserve it provides for any external heating conditions (for example, extremely cold weather outdoors). The glass, high temperature radiant heating system offers an **extremely powerful heat source**, which with the proper approach, sensitive and detailed settings, and subsequent regulation achieves **extraordinary savings in heating costs**.

METHODOLOGY OF SYSTEM DESIGN AND IMPLEMENTATION

The successful implementation of the system consists of:

- Correct determination of input parameters
- Correct calculation of the appropriate heating system
- Production of the system
- Installation of the system

Correct determination of input parameters

In order to determine the input parameters correctly, it is necessary to get acquinted with the object (building, family house, space) in a complex way – which is not solely measuring the dimensions of the premises (finding out the m3 needed for heating), but also proper determination of materials of walls, partitions, their thermal permeability, etc. In this step, there must not be made any mistake, because subsequent steps are fully dependent on the correctly determined particulars. We recommend - especially at the beginning of cooperation - close coordination and consultation with the our team.

Correct calculation of the appropriate heating system

After almost 20 years of development, production and implementation, we stopped thinking in terms of "product" and switched rather to "solution", but even that is not a fully descriptive title. Heating system is an organism - it is a product, a solution, but above all a form of intelligence in the background, which is the de facto soul of this solution. This soul, this know-how is materialized in a calculation model, which is a own software solution enabling the detailed calculation necessary for the **correct determination of particular types of radiant panels for individual rooms** and thus perfect harmony within the building. It is thanks to this "brain" that the solution is extremely effective.

System production

The production of the system is currently located in Slovakia, but if necessary, it is possible to create production capacity anywhere.

Installation of the system

Installation of the system is **principaly very simple**. Based on particulars on the existing electrical wiring obtained from the operator (or designer) of the building, it is possible to determine exactly whether to leave the existing wiring as sufficient, or implement a new one. The implementation of new wiring requires minor construction interventions, but in principle it does not disturb the running and operation of the building as such. The calculation software determines whether the wiring is sufficient or new ones is needed. The training of the local team would be a condition for long-term cooperation.

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