



Natural
Healthy
Comfortable
Elegant
Inexpensive

Raffaella

INNOVATIVE INFRARED HEATING



The sun



The most known and ancient radiation heat source is the sun. Every day, through the sun, we are in contact with **infrared waves which warm up and bring life to the environment** that surrounds us. The sun receives its energy from the infrared waves contained in its nucleus. Contrary to UV waves, infrareds [infrared waves] bring benefits to people's health.

...we use the best energy

How can the sun's heat travel for millions of kilometers in the freezing space and still warm us up this well? The reason for this phenomenon is hidden in the electromagnetic waves in the area below the red region of the visible light. These waves bring the molecules to vibrate resulting in the release of energy, which is felt as heat. Unlike even shorter wave lengths, like X-rays, **infrared rays have a very positive effect on the human body**. RAFFAELLO radiant panels, like the sun, generate heat waves which warm up all the surfaces and objects in the room capable of storing heat.

Infrared heating is one of the last frontiers regarding energy conservation: the principle is the same which regulates the sun and its rays. Infrared waves heat the body and not the air, unlike traditional heating systems.

RAFFAELLO infrared panels directly warm up objects and people, resulting in advantages for health as the first effect will be the regulation of humidity.



...More well-being for the whole family

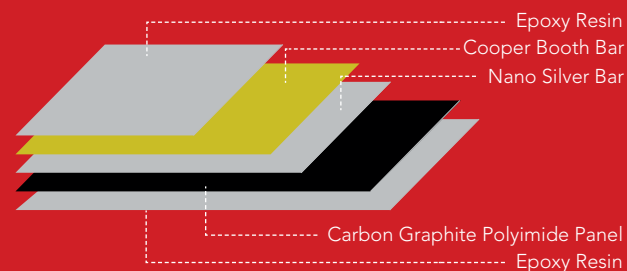


It is known how traditional heating systems, by warming up the air, cause lifting of dust. Infrared heating instead, by **evenly warming** up objects and walls doesn't create these types of problems: walls remain dry and mildew doesn't have the possibility to spread, guaranteeing healthier environments. Also, infrareds have positive effects on health and healing processes against many diseases. Heat waves in fact, penetrate the body in depth and **activate cells, blood circulation, metabolism and detoxification of the body**. The infrared heat helps the well-being of people, animals and plants, it has been used for many years for **therapeutic purposes** and its classified as absolutely safe, so safe that many neonatal care units now use infrared heating systems in incubators.



How it works

The infrared rays are generated by carbon which associated with other layers of special patented technologies, if electrically stimulated, they generate FIR infrareds. These FIR waves, allow to generate heat that is transmitted to the human body penetrating the skin layers, also the subcutaneous ones. The high efficiency of the special construction system based on graphite carbon, combined to the patented technology REFLECTOR, means that almost all of the infrared rays produced are directed to the front of the panel and only a minimal percentage of the heat is directed on the back ensuring a high energy efficiency.



Traditional systems



The moist air condenses to form mold and damaging the walls.

The air circulation in side the rooms raises dust.

The differences in temperature inside the room generate air currents.

Infrared systems



Objects and walls remain dry and release heat.

Infrared heat has positive effects on people.

Inexpensive, easy to install and saves energy during operation.



Versatility

The low-weight and the possibility of an **immediate activation** will allow to easily move RAFFAELLO in any place of the house. The electrical connection makes it possible to manage the activation remotely via SMS or thermostat.



Easy to install

Installation requires only two screws and a 230V connection. No maintenance, long life, low power consumption and a great design make our infrared [radiant] panels RAFFAELLO an **excellent solution**. Perfect for wet areas such as bathrooms as there is a high level of protection IP44.

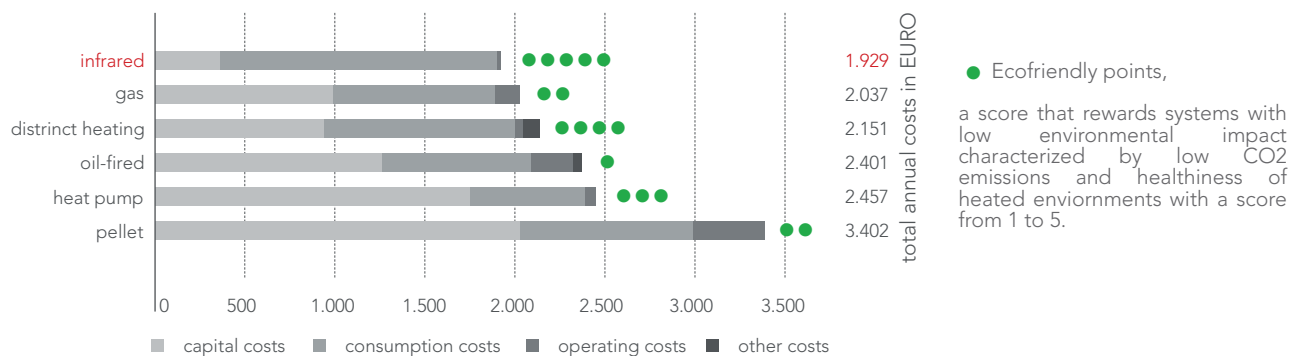


Energy saving

The elements which produce infrared heat **use 50% less power** compared to an electric heater and have a lower energy consumption than that of a normal air / water heat pump. By saving energy, the system is amortized over a period of a few years.



Comparison - annual costs for different heating systems



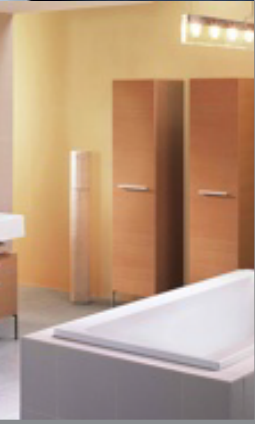
...also a floor heater



In ambients with large surfaces, where heating systems can be used to create **localized comfort zones** which could be used in designated areas for a limited time, an ideal solution is a **platform heater**. In large spaces, usually air heaters are chosen.

A system of this type requires a heating system, batteries for thermal exchange and pipelines to bring the hot air to the environments. The losses due to the generators' efficiency and the pipes decrease the system's performance.

Furthermore, layering brings hot air in the higher parts of the rooms, contrary to the need. The film can be used in many different applications: wooden platforms that can be walked on are ideal for places of worship, placed under carpets for example. It can also be used on heating elements in floors, on the walls or suspended, heated ramps or for de-icing on flat roofs and pipelines.



Photovoltaic + Infrared heaters...the perfect solution

A Photovoltaic system allows the production of clean and free kWh that can be used also for heating thanks to the RAFFAELLO radiating panels. This also means saving on methane, GPL or diesel oil expenses, obtaining a **COST FREE** heating system with no polluting emissions in the atmosphere.

Sizing and installation

The high efficiency of the infrared radiating system must be associated with some technical choices regarding the dimensions of it, in order to obtain an efficient heating solution.

The assessment of the dimensioning must be carried out carefully as a function of the conformation of the premises to be heated, considering size and the degree of insulation from the outside. A guideline of 30/70 W/m² for rooms 2.5m tall can be considered.

The panels can be placed both on walls and ceilings, always respecting the distance from other walls of the room and any obstacle to permit a uniform diffusion of the infrareds. The mounting of the panels simply requires screws and anchors which are included in the box. The 3 meter power cable is ready to be plugged in a wall socket in any room of the house. RAFFAELLO can be used with floor supports which allow to position it in any place in the house.



STANDARD
White with alu frame



GLASS
white,
black
mirror



FILM

Modello	Sizes H x L x D (cm)	Weight (kg)	Power (W)	Volume heatable m ³ (area m ²)*	Cost per 8 working hours*
STANDARD VCIR-250	30X90X2,5	3.0	250	17 (7)	0,18 €
STANDARD VCIR-450	60X60X2,5	3.5	450	31 (12)	0,32 €
STANDARD VCIR-650	60X90X2,5	5.5	650	45 (18)	0,47 €
STANDARD VCIR-900	60X120X2,5	7.5	900	63 (25)	0,65 €
VETRO NERO GVCIR-600 B	60X90X2,5	9	600	42 (17)	0,43 €
VETRO NERO GVCIR-800 B	60X120X2,5	14	800	65 (22)	0,58 €
VETRO BIANCO GVCIR-600 W	60X90X2,5	9	600	42 (17)	0,43 €
VETRO BIANCO GVCIR-800 W	60X120X2,5	14	800	65 (22)	0,58 €
SPECCHIO GVCIR-400 M	60X60X2,5	6	400	28(11)	0,29 €
SPECCHIO GVCIR-600 M	60X90X2,5	9	600	42 (17)	0,43 €
PELLICOLA FILM-50	50cm lunghezza su misura	0,4/m ²	220/m ²	31 (12)	0,15€

* with energy cost 0,09 euro/kwh

The panels can be personalized by choosing between thousands of images.



digital
thermostat



manual
thermostat



digital
timer



wall
thermostat



remote
GSM control



Alu stands for
mobile use of the
heating panels

These brands recognized as a synonym of quality, All products are covered by a 2 year warranty.



Conformità CE, EN 603351:2002+A1+A11+A12+A2+A13+A14+A15, EN 60335-2-30:2009, EN 62233:2008 by TUV GS, ISO 9001:2008, Seibersdorf Laboratories