

  
We have  
reinvented heating

Smart, comfortable heat – healthy & cost-effective



Handed over by



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## The alternative alternative

Heating with conventional energy sources, such as oil and gas for instance, is becoming increasingly more expensive. The Vitramo heating system is an innovative alternative for splitting the investment costs for a modern heating system: some of the costs go on the Vitramo heating system, the rest goes on a system for generating renewable energies.

The whole point behind the Vitramo infrared heating system is that it offers first-class energy efficiency and cosy comfort in the home in combination with low investment and servicing costs. There is thus no further need for expensive floor heating systems. Vitramo heats with electricity which you generate

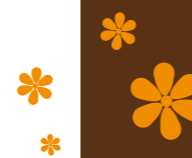
yourself by means of a photovoltaic installation on the roof – in other words, a free energy supply from the sun. Vitramo then delivers CO<sub>2</sub>-neutral heating and cannot be beaten in terms of efficiency in well insulated buildings.



## Healthy, cosy heat

Infrared radiation heating, when used correctly, outdoes the classic hot-air and floor heating systems in terms of comfort, because it works cleanly, silently and without the need for servicing. Less room air is circulated, which means that less dust and bacteria are circulated also. This creates a particularly pleasant room climate which is ideal for persons who suffer from allergies and asthmatics. Even the phenomenon of

“dry heating air” does not occur with radiation heating. Walls which enclose a room and the floor are heated with Vitramo on a differentiated basis in such a way that they do not demonstrate any temperature differences between each other. The Vitramo heating system guarantees this differentiated heating through the use of highly effective, small and inexpensive heating elements.





## Smart Vitramo

The Vitramo heating elements convert electrical energy into infrared radiation with virtually no losses. Because the inner room surfaces are heated by the Vitramo heating system, the air temperature can be significantly lower than the temperature with a conventional heating system without living comfort being compromised. Since already reducing the air temperature in the room by 1°C results in an energy saving of roughly 6%, Vitramo offers convincing heating technology.

A further advantage: After ventilation, energy is saved, because the fresh room air does not have to be reheated so high. The heat from infrared radiation not only heats the inner room enclosure, but also dries the walling. This shifts the dew point outwards by up to one third of the wall thickness, thereby increasing the heat insulation effect accordingly. The dry walling of the room enclosure in turn acts as a storage medium for the absorbed thermal energy.



### Advantages at a glance:

- \* Low investment and low servicing costs
- \* Energy efficiency and cosy comfort in the home
- \* Especially suitable for persons who suffer from allergies & asthmatics because less dust is circulated in the room
- \* Installation of expensive heating systems, such as floor heating, not necessary
- \* Regulation of the operative temperature possible
- \* Heating system combined with a photovoltaic installation is CO<sub>2</sub> neutral



## My housemate's name is Vitramo

The Vitramo heating system has many benefits. Vitramo also prevents mould. Because the heat from infrared radiation heats the walls more than the room air, the room air cannot cool on these walls. As a result, water vapor cannot condense either!

# Comfortable heat despite reduced room temperature

The use of Vitrarno reduces the demand for heating energy, because thermal comfort in the room is dependent not only on the air temperature. The air temperature can then be lowered when an equilibrium is created for this.

The Vitrarno heating system is ideally suitable for precisely this: Thermal comfort describes a person's subjective feeling of heat. It is determined by the room climate, by the current physical activity and by the clothes being worn.

## The room climate is dependent on physical conditions:

- \* the operative room temperature, which is the mean value of air temperature and temperature of the surfaces in the room
- \* the relative air humidity
- \* the movement of air in the room



## Technical equipment

- \* Measuring instrument for air temperature
- \* Control unit
- \* Operating unit

## Simple technology for simple warmth

The Vitrarno control unit is Vitrarno's "brain". This control unit controls the infrared heating elements in such a way as to guarantee thermal comfort and heat the room energy-efficiently.

A modern heating system must also feature modern control technology to enable you to adjust your heating quickly and easily to your personal needs. Whether you opt for a conventional version with electrical leads or for the version with remote control, perfect quality and functioning are guaranteed. The room thermostats and the control unit operate with digital technology and therefore control with degree-perfect precision.

We will be pleased to provide you with expert advice! The highly effective and yet small and inexpensive Vitrarno heating elements are available in different dimensions and rating classes:



Type designation	Dimensions	Temperatur max.	Nominal voltage	Nominal power
VH0300	350 x 350 x 25 mm	200 °C	230 V	300 W
VH0550	475 x 475 x 25 mm	200 °C	230 V	550 W
VH0900	625 x 625 x 25 mm	200 °C	230 V	900 W
VH1250	1,000 x 500 x 25 mm	200 °C	230 V	1.250 W
VH1800	1,250 x 625 x 25 mm	200 °C	230 V	1.800 W