

## CASE STUDY INGENIOUS WARMTH IN A RENOVATION PRIVATE HOME | AUSTRIA

## THE SITUATION AT THE OUTSET.

A young family wanted to create more living space and expanded their home by an entire floor. Due to the static structure only dry construction was possible.

## THE CHALLENGE.

The new floor had to use lightweight construction - and this also applied to the heating system. However, they did not want to make any compromises in living comfort. The new bathroom, for example, is to become a real oasis of well-being with a heated shower.

The "feather-light" heating solution is designed as the main heating system and is intended to ensure fast heating of the rooms. Due to the desire for a very modern conversion, it was necessary to find both a technically perfect and design-oriented solution that is also energy-saving and environmentally friendly.

## THE ETHERMA SOLUTION.

ETHERMA electric underfloor heating is installed on the entire floor. The choice here falls on the thin ETHERMA grid heating mats, which are characterised by their low weight and low installation height. A LAVA® GLAS 2.0 mirror infrared heater serves as additional heating in the living room, which not only provides fast heat but also makes the room appear larger due to its mirror surface.

Warm tiles in the bathroom are provided by ETHERMA underfloor heating, which is characterised by a particularly low installation height. The ETHERMA specialised netted heating mats with a low voltage of only 24V for protection areas even allow the temperature of the disabled-access shower to be controlled. In order to also integrate the steps into the bathtub, the heat conductors were laid freely here.

Modern, precise control is the key to saving operating costs and avoiding wasting valuable energy. With the elegant and intelligent eTOUCH thermostats every room can be controlled simply and efficiently.

Together with the building owners, ETHERMA found an ideal solution that fits optimally to the necessary lightweight construction, is economically viable and operational and saves heating costs during changes of season.



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ETHERMA underfloor heating allows the floor to be heated in a targeted and timely manner. The variable application possibilities of the dipole grid heating mats leave nothing to be desired. The close-to-the-surface installation allows a particularly fast heating response and guarantees a warm floor in the morning, in the evening - whenever desired - with efficient use of energy at the same time thanks to precise control.

As additional heating for increased heat demand, a LAVA® design infrared heater was installed in the living room. In the LAVA® GLAS 2.0 MIRROR version, it is a fully-fledged mirror that not only heats up the room, but also visually enlarges it. Thanks to the modern design, infrared heating becomes an essential part of the furnishing.

## ETHERMA UNDERFLOOR HEATING IN SCREED -BENEFITS OF THIS PRODUCT

- + Only 2.7 mm thin
- + Self-adhesive netted heating mat
- + Only one connector cable
- + Very low magnetic field < 25 nT
- + Flat, torsion-free laying
- + Special sizes & connection line custom-made
- A Bare concrete
- B Existing insulationC Existing floor screed
- D Glass mat
- E Flexible adhesive
- F Floor covering (surface covering)
- G Heating conductor
- H Connecting component (element)
- End fitting
- PTC thermistor
- K Installation pipe for PTC thermistor
- L Installation pipe for temperature sensor
- M Installation pipe and sensor protection tube made of copper N Flush mounting socket for thermostat

## LAVA® DESIGN-INFRARED HEATING -PRODUCT BENEFITS

- + Highest radiation efficiency
- + Frameless Infinity design
- Plug & Play connection system for easy individual control
- + Highest safety against breakage and overheating
- + No service or maintenance required
- + Without magnetic field

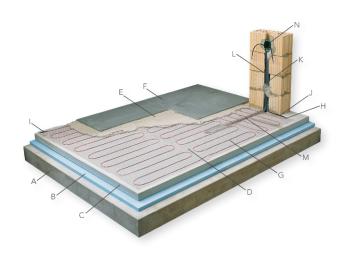
## EXPERTISE AND QUALITY FOR MORE THAN 35 YEARS.



#### THE BENEFITS AT A GLANCE

- + "Feather-light" heating system for lightweight and dry construction.
- Particularly fast heating response- both with underfloor heating due to the close-to-the-surface installation and with LAVA<sup>®</sup> Design infrared heaters.
- + The heater is part of the architecture like the LAVA<sup>®</sup> infrared heater or invisible like the underfloor heating.
- + Low investment costs, easy installation
- + No maintenance costs
- Highest efficiency through precise control you decide when to heat.

### **EXAMPLE OF AN INSTALLATION**





With ETHERMA, you have an expert partner for your heating solutions with more than 35 years of experience. You will benefit from our continuous innovation, high-quality products and modern design. We offer an extensive range of services to support you and can find a product solution suitable for your individual requirements. As an Austrian business active internationally, our electrical heating systems are made to measure, in-house.

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