

THE BOOK OF FLOORS

UNDER-
FLOOR
HEATING





INGENIOUS HEAT. THE ETHERMA WORLD.

INGENIOUSLY DESIGNED: THE ELECTRIC UNDERFLOOR HEATING

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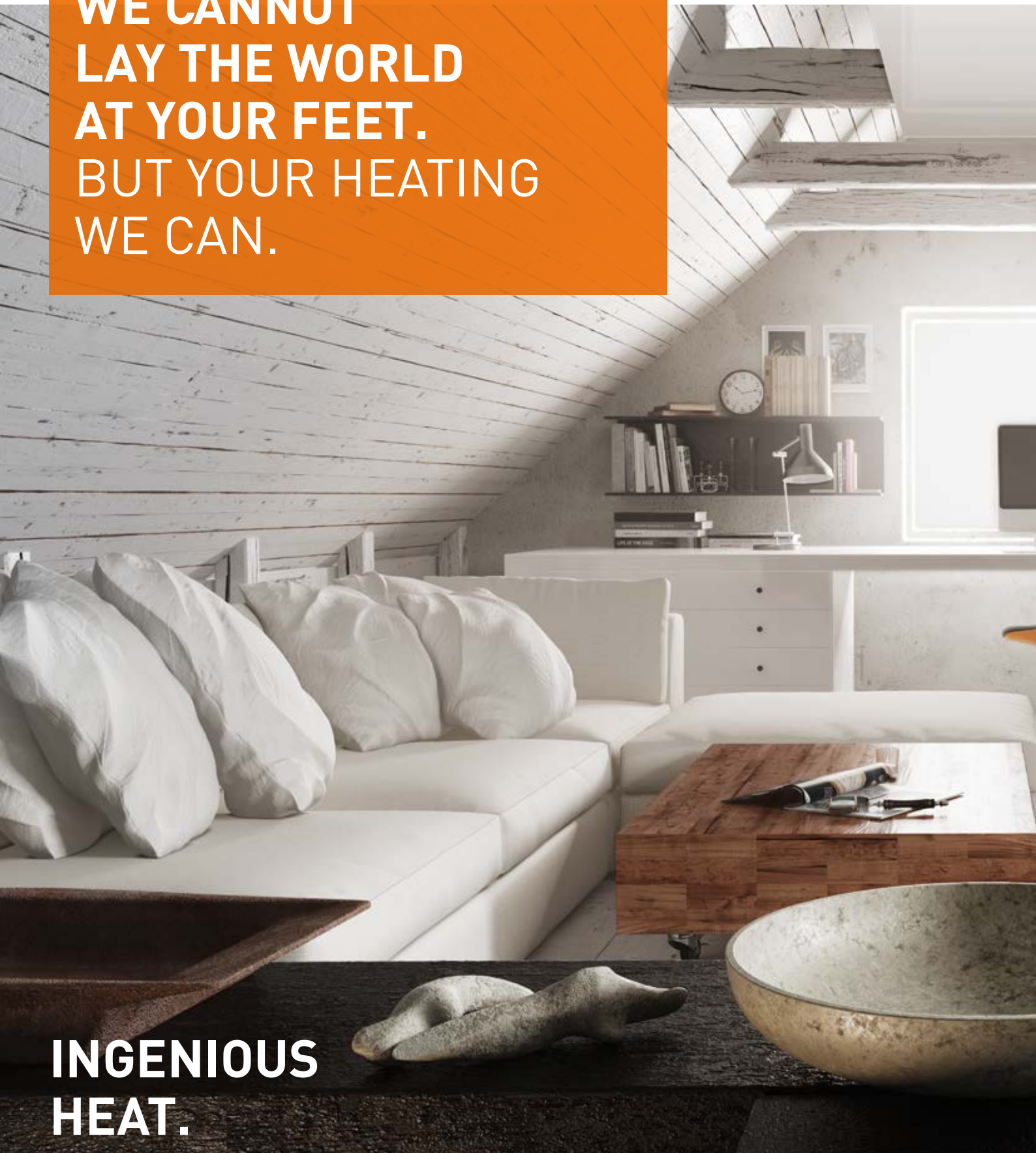
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**WE CANNOT
LAY THE WORLD
AT YOUR FEET.
BUT YOUR HEATING
WE CAN.**



**INGENIOUS
HEAT.**

**INGENIOUS
BENEFITS.**

ECONOMICAL.

It is not only the investment cost which is low. Thanks to precise regulation, you'll also save money when it comes to the operating costs. The ETHERMA netted heating mats are not subject to wear and tear and are therefore entirely maintenance-free.

FLEXIBLE.

Integrated invisibly into the flooring, electric floor heating offers the greatest possible architectural and interior design freedom. Utility and boiler rooms will now be things of the past.



COSINESS IS PRICELESS. OUR HEATING IS ECONOMICALLY PRICED.

There is nothing more exhilarating than opening the door to a cosy home and to feel safe and protected in the privacy of your own four walls. You can be sure that the selection of the right heating system will sustainably change your life. With the ETHERMA electric underfloor heating, you're opting for a state-of-the-art, efficient and cost-effective solution. And no, we're not only saying this because it sounds good. We can prove it. Thanks to cutting edge technology, electrical energy is directly converted and heat is given off in no time.

You have to be aware of one thing – initially many heating systems have to heat a medium such as air or water. So why not go for the direct way? Water heating systems, for example, require a substantially greater amount of time to reach the desired operating temperature – and time is money! If you add up the investment and maintenance cost in addition to the operating costs over a period of 15 years, you'll quickly see that the electric heating provides the optimum solution. No matter whether we are talking about an underfloor heating or about a combination with our LAVA® design infrared heating systems.

WE PROMISE MORE THAN JUST HOT AIR.

Conventional heating systems heat up the air. The radiant heat of the ETHERMA underfloor heating, however, heats the room. In this way, an even heat distribution is generated, without raising dust and drying out the air. These are two substantially beneficial properties for allergy sufferers. Radiant heat produces a pleasant, subjective sensation of warmth. This can help reduce the room air temperature by up to three degrees. With each degree you're saving up to six percent of heating costs. Quality, durability, environmental sustainability. All this is quantifiable and speaks in favour of ETHERMA. What is not quantifiable, though, is the cosy atmosphere moving into your home when you choose the right heating system. This is a feeling that you simply have to experience.

EFFICIENT.

Heat is generated where it is needed. 100% loss-free. Thanks to precise single-room control you decide for yourself where and when heat is to be generated.

COMFORTABLE.

Enjoy fast heat at the press of a button or fully automatically via an intelligent thermostat with a weekly program. Maintenance and service work will be things of the past.

NOT QUITE CLEAN? OUR VISION DEFINITELY IS.

ETHERMA ZERO EMISSION HOME.

If you want to make a difference in the future, you have to start today. For this reason, we think ahead of our time. More than three decades ago ETHERMA founder Peter Reiter was fascinated by the possibility of using hydroelectricity. Driven by the vision of heating the floor directly with electricity without losses and without a boiler and heating the building with a clean energy, we created our modern and innovative heating concept. Today's owner Thomas Reiter continues to pursue this course with consistency. And he's convinced: The future of heating is electric.



**“WE CANNOT PREDICT THE FUTURE.
BUT WE CAN SHAPE IT.”**

Thomas Reiter

After all, who would have thought ten years ago that the development of electric cars would progress so positively and quickly? What has long been advertised on the streets as a defined goal for the future will continue within own four walls. It was once the idea to generate clean electricity and convert it into heat without any losses. Today the goal is to produce and use the electricity we need. Contrary to many claims, electricity is a clean, environmentally friendly and cost-efficient source of energy. More and more power suppliers use the natural power of water, wind and sun.

Favoured by the rapid technical progress in photovoltaic systems and battery storage, today it is also possible to produce electricity yourself and to provide your own energy supply independently of the external gas and electricity grid. We all need to be aware that resources such as oil or gas are not infinitely available on our planet. The power of nature, on the other hand, is.



INDEPENDENT AND UNENCUMBERED.

Modern electric underfloor heating is more than an alternative. Electric heating systems are our only chance to sustainably reduce environmental impact. Combined with an innovative energy generation and storage system, you live completely independently. The ETHERMA ZERO EMISSION HOME offers a sophisticated concept of using self-generated electricity for daily needs. The additional demand during the heating periods can be covered by clean electricity from hydropower or renewable forms of energy from the grid. The precise control also minimises energy

requirements and therefore reduces the operating costs. Together with modern home automation, optimum comfort is created and the available energy is used more efficiently. Gone are the days when low-energy and passive houses needed a power plant in the basement. The heating system is often simply oversized in relation to the demand. Thanks to structural optimisation of the insulation and windows, the heating requirement and, therefore, the energy required is reduced. The future of heating is clean and independent.



**OUR SECRET –
CUSTOMIZATION
INSTEAD OF
MASS-PRODUCED
SOLUTIONS.
INDIVIDUAL SOLUTIONS
ARE OUR TRADITION.**



YOUR DREAM HOME IS OUR BENCHMARK.

Our state-of-the-art and efficient heating system is the result of years of intensive research work. Experience from which you benefit today and from which you'll benefit in the future. After all, it has always been our goal to bring cosiness and a pleasant sensation of warmth into your home.

As a reliable partner, we provide you with our know-how from the first cut of the spade until you move into your new home. Free of charge. This goes without saying for us. You put us in charge and you will enjoy the resulting warm and comfortable ambiance.



WE LAY IT ON THIN.

No matter whether we are talking about new construction or restructuring, together we'll find the optimal solution. Our heating mats can be laid directly into the screed or underneath almost any types of parquet and laminate floors as well as tiles and stone floors. The thin heating mats with a maximum installation height of 3.5 millimetres offer maximum flexibility. The installation is carried out quickly and easily. The mats are produced in a tailor-made fashion on request, making laborious trimming on site unnecessary. Roll it out and that's it - now let's start heating! Installing a heating system can be as easy and time-saving as this.

FOR YOUR HOME, FROM OUR HOUSE.

We are convinced that sustainability is a precondition for quality – and vice versa. This is why our production takes place where the company ETHERMA was once founded: In our home – “Salzburger Land”, the federal province of Salzburg. In the factory, which is rich in tradition, products have been developed, tested and manufactured for more than 35 years. In addition to our top-quality standard products, we also offer individual, tailor-made heating mats. Whether you require temperature conditioning of

individual areas, an additional heating system or full heating, the manually produced mats provide an optimum fit for every type of architecture, even if it is angled and specific. Our products are just as multifaceted as your wishes for your dream home when it comes to keeping your home warm.

A SOLID FOUNDATION TO BUILD DREAM HOMES ON. THE IDEAL SOLUTION IN THE FIELD OF NEW CONSTRUCTION.

Building a new house means having countless options and having to take numerous decisions. Especially when it comes to the subject of heating. However, the optimal solution is so close at hand. With the underfloor heating in screed flooring, you are choosing an intelligent, comfortable and independent option. Particularly in combination with producing your own electricity. The clean electricity is stored in the underfloor concrete core in the form of heat and is then gradually released into the room. The final floor covering is independent of the under-floor heating.



01 OUR CUSTOMERS SPEAK FOR THEMSELVES.

“As a young family, we wanted to make our dream come true – our own dream home. What was important to us was to find a clean, comfortable and cost-effective heating solution and to be independent of oil and gas. But the most important thing of all was a healthy, dust-free indoor climate. The plan was to couple the heating system to a photovoltaic system and control it via an intelligent home automation system. Furthermore, we wanted it to match our modern ambience and to make sure at the same time that it would take our idea of environment protection into consideration”

02 AND THIS SPEAKS FOR US.

Installing the ETHERMA RS heating mats in the screed has a storage effect and therefore produces a time lag for the heat release. In those areas with an increased heat demand, the screed heating has been additionally combined with the ETHERMA LAVA® design infrared heating. In this way, maximum efficiency is attained thanks to precise regulation. In addition to the storage of their own electricity produced in the form of heat, the family relies on a storage battery which, in connection with the eNEXHO house automation system and an intelligent energy management system, coordinates the electricity produced in the house and optimizes the family's power consumption.

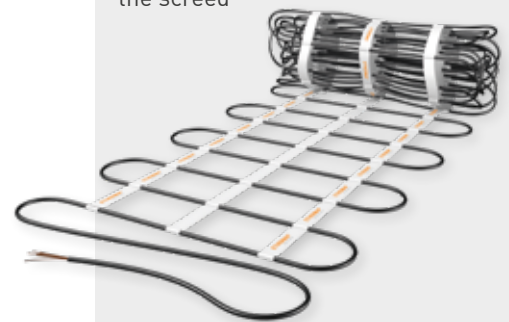
“We deliberately opted for an electric underfloor heating combined with an infrared heating, taking an overall cost estimate as a basis. If you add up the acquisition cost and operating cost over a period of 15 years in comparison to other heating systems, the electric heating proves to be the most cost-effective one.”

Family Watzal from Nußdorf | Austria



ETHERMA RS

Dipole heating mat for installation in the screed



PRODUCT ADVANTAGES

- > 40 to 240 W/m²
- > Very low magnetic field < 25 nT
- > Only one connector cable
- > Ideal heating system for heating low energy and passive houses
- > Innumerable sizes/outputs provide for easy planning and easy installation

03 THIS IS THE LIFE.

Together with the ETHERMA planning team a holistic heating system has been developed which meets the family's requirements. By choosing the electric storage heating, the house builders chose the comfortable and noiseless alternative to the heat pump. Thanks to the innovative ETHERMA solutions, the family is heating its new home in an environmentally friendly and highly efficient fashion. Costs will only be produced if heat is actually consumed. Above all, the electricity required for producing the heat is clean and, to a large extent, is generated from domestic production. You'll never depend on fluctuating gas and oil prices again and maintenance and service costs can be entirely dispensed with.

WHAT DOES NOT FIT WILL BE MADE TO FIT. WHEN YOUR OLD HOME GLOWS WITH NEW COSINESS.

Let's face it – old simply isn't new. This is why every restructuring process brings about the challenge of making the most of the existing building material and despite the building structure requirements and specifications. With the customized and multifaceted ETHERMA products, we guarantee you unlimited creative possibilities when you restructure your building, at least when it comes to the heating system, no matter which flooring you'll decide on.



01 OUR CUSTOMERS SPEAK FOR THEMSELVES.

“In order to create more space in our home we have extended the house by one complete floor. As the extension had to be carried out in lightweight design for static reasons, only dry installation could be considered as an option. In this process, the heating system, in the truest sense of the word, had to be lightweight. We didn't want to make any compromises in terms of design and living comfort. The bathroom, especially, was to become a true oasis of well-being.”



02 AND THIS SPEAKS FOR US.

As the main heating system, the thin ETHERMA DS netted heating mats were installed in the new floor quickly and easily. Thanks to their low installation height and top-quality material, they are unobtrusive and therefore provide the optimal solution for dry installation applications. Installation near the floor surface itself provides for a particularly fast heating response. Thanks to the single-room control function, each room can now be heated individually and can be controlled easily by means of intelligent eTOUCH thermostats.

“Not only has ETHERMA put our ideas optimally into practice but it has even exceeded all our expectations. The new heating system lives up to its promises. Especially when it comes to the subject of low operating costs. It is a convenient system without any maintenance costs and you do not need a chimney sweep anymore.”

Family Schinnerl from Nußdorf



03 THE SOLUTION FOR COOL GUYS WITH A PREFERENCE FOR HOT WATER.

In the large and modern bathroom, the ETHERMA D heating mats with a low voltage of 24V were used. They provide warm tiles even in the shower. As an additional highlight, heating pipes were installed in the steps leading to the bathtub so they were also heated. On the whole, ETHERMA have found an energy-saving, design-oriented solution which does not collide with the building structure and which leaves none of the family's wishes unfulfilled.



ETHERMA DS

Dipole netted heating mat under tiles or stone



PRODUCT ADVANTAGES

- > Only 2.7 mm thin
- > Also suitable for wall heating
- > Self-adhesive netted heating mat
- > Only one connector cable
- > Very low magnetic field < 25 nT
- > Flat, torsion-free laying
- > 2 standard widths: 50, 100 cm
- > Customized connecting cable available
- > Custom-made special orders and sizes
- > Also in 24 V design

INGENIOUSLY EXTENSIVE: THE ETHERMA PRODUCT OVERVIEW.



ETHERMA DS

Dipole netted 24V heating mat with one connection line

BENEFITS OF THIS PRODUCT

- + Custom-made special orders and sizes
- + Suitable for new construction and restructuring
- + Custom-made connection line available
- + Self-adhesive

CE

Installation height	2.7 mm
Output	160 - 250 W/m ²
Temperature-resistant	up to 90 °C
For wet rooms	✓
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	✓
Floor screed	-
Laminate, parquet floors	-
Carpet	-



ETHERMA DS

Dipole netted heating mat with only one connecting line

BENEFITS OF THIS PRODUCT

- + Flat, torsion-free laying
- + 2 standard widths: 50, 100 cm
- + Custom-made special orders and sizes
- + Connection line custom-made available
- + Self-adhesive

CE

Installation height	2.7 mm
Output	130 - 200 W/m ²
Temperature-resistant	up to 90 °C
For wet rooms	✓
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	✓
Floor screed	-
Laminate, parquet floors	-
Carpet	✓



ETHERMA NST

Dipole netted heating mat strong with Teflon-insulated heat conductor

BENEFITS OF THIS PRODUCT

- + Fast heating response
- + Chemically resistant
- + Custom-made special orders and sizes
- + Connection line custom-made available

CE

Installation height	3.3 mm
Output	160 - 300 W/m ²
Temperature-resistant	up to 150 °C
For wet rooms	✓
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	✓
Floor screed	-
Laminate, parquet floors	-
Carpet	-



Laminotherm

Dipole heating mat for floating installation

BENEFITS OF THIS PRODUCT

- + Ideal heat distribution due to special foil
- + Simple, fast installation by floating
- + Connection line custom-made available



Installation height	1.3 mm
Output	120 W/m ²
Temperature-resistant	up to 90 °C
For wet rooms	-
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	-
Floor screed	-
Laminate, parquet floors	✓
Carpet	-



ETHERMA RS

Dipole heating mat for installation in the screed

BENEFITS OF THIS PRODUCT

- + Ideal heating system for heating low energy and passive houses
- + Various sizes and outputs enable easy planning and simple installation



	In screed flooring
Output	40-240 W/m ²
Temperature-resistant	up to 90 °C
For wet rooms	✓
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	*
Floor screed	✓
Laminate, parquet floors	*
Carpet	*



ETHERMA RLH

Dipole heating loop for free installation in screed flooring

BENEFITS OF THIS PRODUCT

- + Ideal heating system for heating low energy and passive houses
- + Various outputs enable easy planning and simple installation
- + Free laying of heating loop



	In screed flooring
Output	10, 15, 20 W/m
Temperature-resistant	up to 90 °C
For wet rooms	✓
Very low magnetic field	✓
Connecting cable	1
Tiles, stone, marble	*
Floor screed	✓
Laminate, parquet floors	*
Carpet	*

* Floor covering at your choice for underfloor heating systems in screed flooring

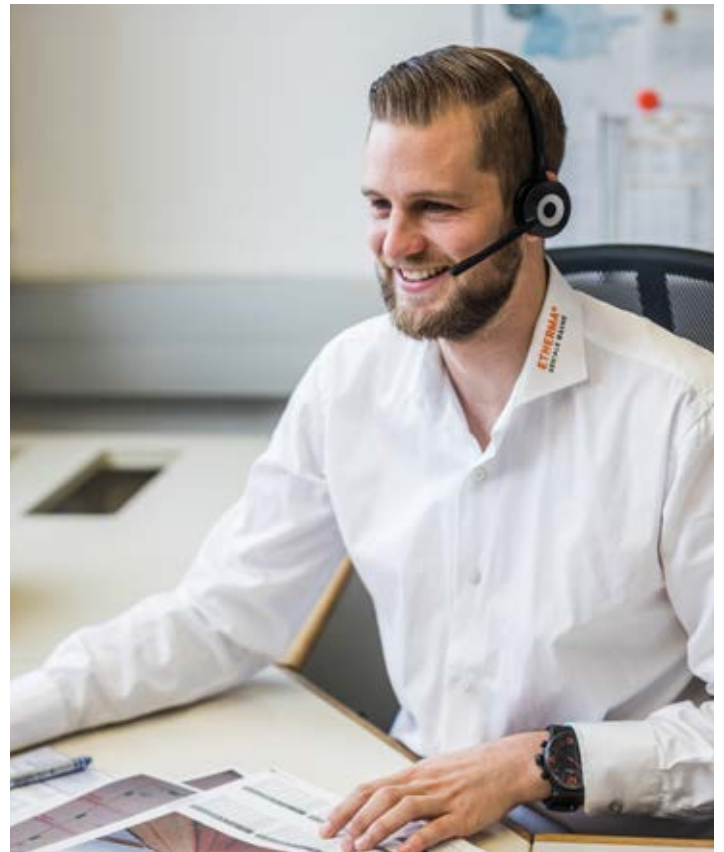
THIS IS WHAT WE BUILD ON. THE FOUR ETHERMA COLUMNS.



QUALITY.

Regional production for international standards.

For more than 35 years, we have represented the highest standard at fair prices. In order to meet our own demands and your requirements every day, we develop and manufacture our ETHERMA products with top-quality materials in Austria – our home country. In the two production facilities in Salzburg, our products are manufactured in compliance with the highest international standard, subjected to the quality inspection by our experts and prepared with a lot of attention and care.



SERVICE.

As a customer, we consider you as part of our family.

We will assist you from the free-of-charge consultation and planning to the installation of your new heating system. During this time, we will not only provide you with the advice of our specialist dealers but we'll also be happy to be at your side personally and provide you with direct support. Our staff members, with their longstanding experience and professional training, will solve your problems. Do you have any questions about electric heating systems? We know the answers. Do not hesitate to contact us. With us, perfect service does not end when we sell a product to you. With ETHERMA, you'll gain a reliable, loyal partner.



DESIGN.

Our heating is a true masterpiece.

Apart from efficiency and functionality, we attach special importance to an attractive design when we manufacture our products. Our heating systems match the overall picture of the living spaces, buildings and open spaces perfectly. They are invisible or integrated into the architecture as design elements. Our LAVA® GLAS MIRROR infrared heating, for instance, is a fully-fledged mirror which, at the same time, gives off heat. And with the LAVAART infrared heating devices, we magic true masterpieces onto your walls. The cosiness in your living space is the focus of our work. Due to the individual design options and the wide variety of applications of our products, there are no architectural restrictions to our work.



INNOVATION.

We've been thinking ahead for more than 35 years.

Peter Reiter, the company founder, has always lived up to his name. He was a real pioneer in the field of electric heating systems. Numerous patents are the result of his work. The first European thin-bed heating mat, for instance, was produced by our company. His son and successor, Thomas Reiter, is also working constantly on the advancement of our products and is actively committed to promoting the acceptance of electric heating systems. The innovative capacity in the fields of underfloor and panel heating has characterized our company to date. ETHERMA creates solutions for customer-specific needs. Additionally, with the LAVA® design infrared heating a modern and efficient heating unit has been developed.

A PERFECT MATCH.

The combination of underfloor and infrared heating turns every house into a pleasantly warm home. The LAVA® infrared heating is not only a design highlight – it cannot be surpassed when it comes to the subjects of functionality and efficiency. Different radiation-optimized surfaces & performance levels, as well as refined finishes, provide you with the maximum flexibility to satisfy your needs and wishes.