

LITHOTHERM®

Sustainable construction – healthy home heating



The low-temperature
ROOM CLIMATE SYSTEM

LITHOTHERM - INTELLIGENT
LOW-ENERGY UNDERFLOOR
HEATING FOR A HEALTHY
WORLD INSIDE

SUCCESSFUL SINCE
1990

Our company:

INTERNATIONAL AND CUSTOMER-ORIENTED

LITHOTHERM Deutschland GmbH is an owner-managed company that is based in Bad Kreuznach. From here we market our underfloor heating system right across Europe. In addition to offering numerous ecological and economic benefits it is particularly impressive thanks to its simplicity. A stone, a pipe: This is all it takes to create a cosy indoor climate in a room.

Our customers have been coming to us for more than 20 years – with a wide range of different requirements and challenges. We offer them expert advice and always find the appropriate solution.

Our extensive network of carefully selected partners enables us to provide individual support to our customers. On request, our specialist staff can also travel directly to your location.

OUR PHILOSOPHY:

***Saving energy, living healthy lives, residing in comfort and protecting the environment:
These are the key issues for clients, for us and for our time.***

Anyone who opts for ecological building materials no longer has to make any compromises - neither when it comes to functionality, efficiency nor with significantly higher costs. We have dedicated ourselves to this issue and have been setting new standards for many years with the Lithotherm underfloor heating system.

The dry, straightforward and rapid installation reduces the construction costs. The addition of corresponding system components also delivers outstanding values for impact sound and noise protection.

Natural stone materials are used to produce a building material that offers a convincing choice from an ecological, economic and functional point of view. The pioneering technology of the highly responsive low-temperature heating with heat accumulator ensures lower energy consumption and thus reduces heating costs.

LITHOTHERM: FOR DISCERNING CLIENTS.

Delivers considerable saving on energy, building and heating costs

THE LITHOTHERM FLOOR SYSTEM



Lithotherm is an indoor climate system for regulating the temperatures in areas in which people live and work. The centrepiece of the system is the prefabricated moulded tile. It is made from the natural stone materials of lava fragments, lime fragments and clay granules. This compound not only acts as a heat store during the primary heating period – it also helps to reduce noise and impact sound.

Straightforward installation – short working times

The moulded tiles are simply laid dry resting on the boards and connected together using a tongue and groove method. This very much shortens the required working time.

Short response time–low energy consumption

The direct contact between the heating pipe and the floor covering means: Lithotherm requires a very low supply temperature and can also be regulated in a matter of minutes. Particularly in the transitional periods, this has a positive effect on the heating costs. The room is quickly heated up thanks to the short response time, and energy consumption falls.

With an installation height of just 45 mm, Lithotherm is ideal for use in the renovation of old buildings and new developments in equal measure. The heating system can also be used in walls.

IT COULD NOT BE BETTER:
Straightforward installation, short working times, low consumption.



APPLICATION EXAMPLES



ALL IN ONE

No intersections. This saves time and money.



For more details about the verified system structures, we ask you to make contact regarding the specific property: info@lithotherm-system.de

TECHNICAL DATA

LAVA MOULDED TILE

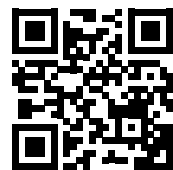
Dimensions (LxWxH in mm)	510x280x45
Weight	65kg/m ²
Flexural strength	2.03 N/mm ²
Class	F3*
Compressive strength	9.64 N/mm ²
Class	C12*
Bulk density class	1.6 (range 1400-1600kg/m ³)
Thermal conductivity	0.89 W/mK
Specific heat capacity	around 1000 J/kgK
Equilibrium moisture content	around 2 M %
Fire behaviour	Class A1

* according to DIN EN 13813 based on the requirement figures for floating cement screeds according to DIN 18560-2



Tested by the Neuwied Material Testing and Research Institute

SCAN HERE for tested structures



HIGHLY EFFECTIVE – 100% ECOLOGICAL.
This protects people and the environment.



The success story of underfloor heating began back in the 1970s. The structure of the systems has barely changed since then: thermal insulation, heating pipes, screed concrete. As well as the advantages, the disadvantages have largely remained the same: installation height, weight, moisture and, most noticeable for each customer, the sluggishness. Any incorrect arrangement of the thermal mass above the heating pipe means that heating up and cooling down can take several hours/days. This process means that the potential savings are wasted in heating transition periods. Such set-ups are therefore no longer up-to-date.

With Lithotherm you only heat when heating is required.

The heating pipes running directly beneath the floor covering emit the heat directly to the room, without any long waiting times.

The rearrangement of the system means that not only is the level of sluggishness fully minimised, but that the thermal mass is arranged in a way that it is only employed when it is required in the main heating period.

Thanks to this optimisation, the customer benefits from the rapid and targeted control that is needed to be able to exploit the potential to make savings. This ensures it's compatibility with improving building envelopes (airtightness and thermal insulation).

BENEFITS

The Lithotherm system heats up rooms faster than conventional systems – and it does so using much less energy.

EFFICIENCY / ENERGY / INDOOR CLIMATE

- : Low supply temperature
- : Direct transfer of the radiant heat to the room
- : Regulation in minutes
- : Particular saving on heating costs in transitional periods
- : Perfect regulation of heat and moisture
- : Long-lasting thanks to consistent quality
- : Protection from heat in summer – protection from cold in winter
- : Absorbs impact sound and is thermally insulating
- : Low installation height

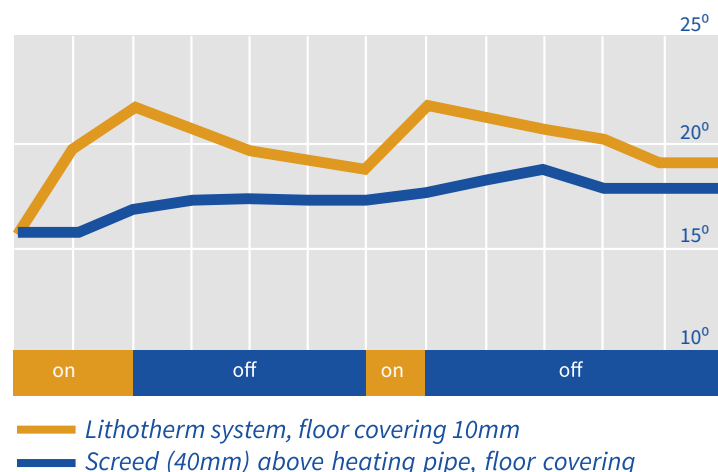
ECOLOGY

- : Conserves resources
- : Natural raw materials: Lava fragments, lime fragments, clay granules (constantly externally monitored)
- : Energy-saving – eco-friendly
- : Recyclable
- : No use of problem substances (“hazardous waste”)

PROCESSING

- : Completely dry installation:
No drying times = rapid processing
- : High dimensional accuracy
- : Suitable for DIY enthusiasts
- : No intersections

LITHOTHERM BY COMPARISON



AREAS OF USE

Different stones for different requirements
and areas of application.



APPLICATIONS

- : Wall and underfloor heating
- : Wall and underfloor cooling system

NEW-BUILDS

- : Timber framed house construction
- : House building
- : High-rise residential buildings
- : Schools, nurseries, public institutions
- : Commercial and Industrial buildings

RENOVATION OF OLD BUILDINGS

- : Historic house renovation
- : Bathroom refurbishment
- : Building extensions
- : Breathable solid floor build-ups
without concrete

**LITHOTHERM UNDERFLOOR HEATING TILES ARE DRY. FLOORBOARDS OR
TILES CAN BE LAID IMMEDIATELY AFTER INSTALLATION, SAVING TIME AND
MONEY.**



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