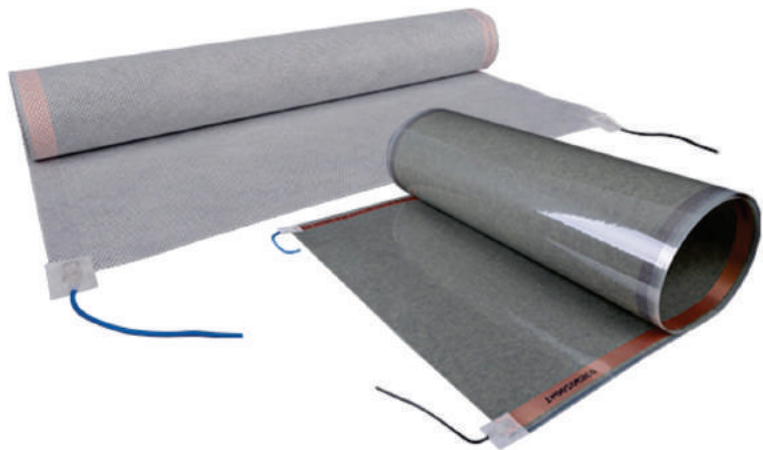


Heating foil for ceiling, wall & floor
Ultra thin. Unique.



COURAGE
TO RETHINK



» THE CLIMATE HAS BECOME A CENTRAL ISSUE OF HEATING

Highly efficient and quicker adjustable surface heating systems do not only save energy, but also save the environment, since climate has become a central issue of heating. More and more new technologies and application areas

are being developed for which electricity provides the necessary energy. Due to the system CARBON HEAT electric heating has become an efficient and low-cost option!

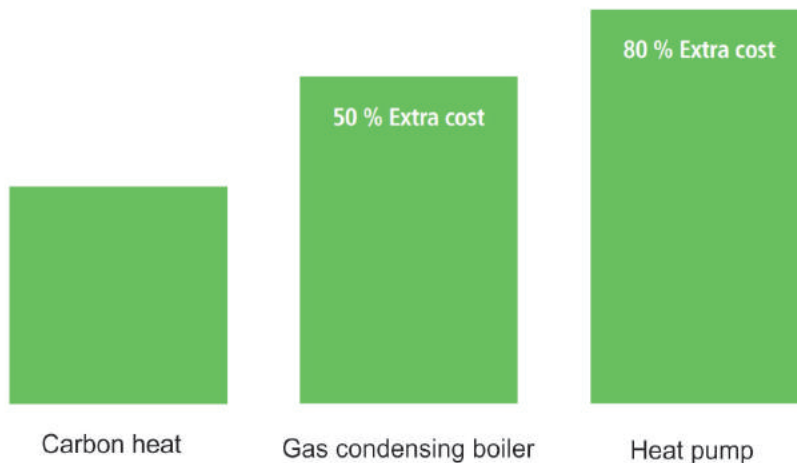
» ECONOMIC EFFICIENCY - IT IS WORTH IT FROM CELLER UP TO ROOF

Future-oriented electric surface heatings for new buildings and reovations

Cofortable warmth from ceiling, wall and floor creates a healthy room climate. CARBON HEAT surface heating systems are very energy-efficient and sustainable due to low costs investment and usage. Our system

worker on the basis of protective low voltage in the heating foil, which is easily guided through adjustable room, thermostate as well as modern Smart Home technology. Combined with regenerative energies like photo-voltaics, homeowners save heating costs and the environment. A sustainable alternative to heating systems with fossil fuels

Comparison of investments in heating systems in the course of 20 years*



* Example of a single-family house, 2-storey new building with 150 m² living space.



» TESTED QUALITY

» QUALITY &
SAFETY



- Patented production process
- Homogeneous instead of laminar structure
- Durable & safe





» NEW POSSIBILITIES FOR YOUR CREATIONS

Use the opportunity of creating totally different room concepts – without considering radiators and convectors. Create your living space on your own. Our heating foils enable you to create rooms without wasting space.

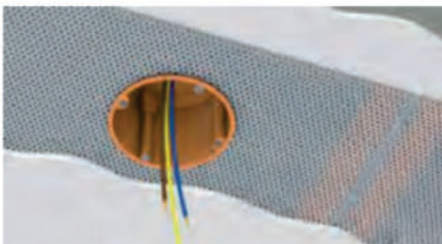
Even small rooms can be enlarged when radiators are substitute at by CARBON HEAT.

This is not only an optical improvement, but also contributes to comfort in new buildings as well as renovations.



» ADVANTAGES AT A GLANCE

- ✓ Low installation height in the millimetre range for barrier-free living
- ✓ Flexible installation on ceiling, wall & in the floor
- ✓ Simple and fast retrofitting possible
- ✓ Low investment costs and easy installation
- ✓ Effective protection against damp spots and mould growth



CEILING Adjusted into the ceiling's surface, the material guarantees an excellent, equal distribution of warmth. After rowelling the ceiling can be painted or wall-papered / decorated. The inclusion of flush-manted boxes at alater time is possible without problems.

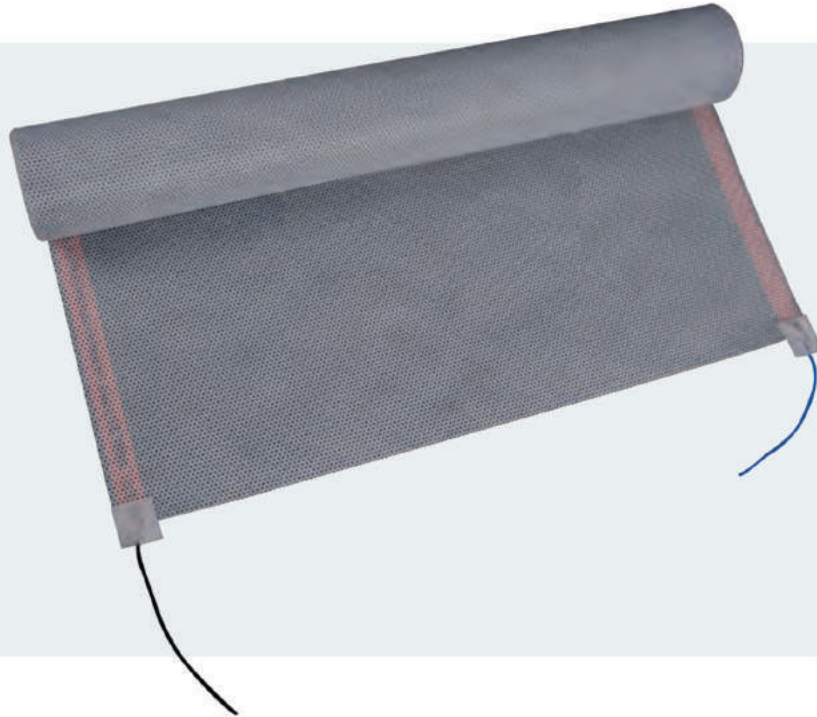


WALL The heating foil provides for adjusting of painting and shelves with dowels and screws. No limitation is set to your creative ideas and wishes.

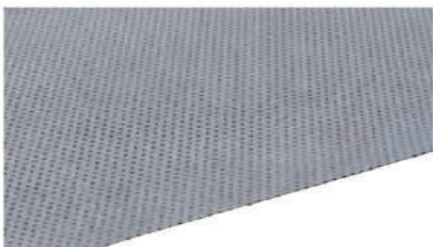
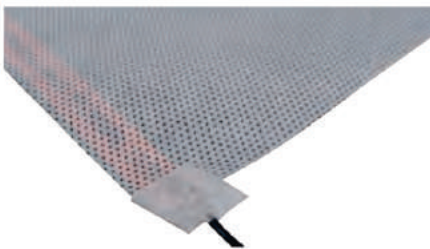


FLOOR This example shows a floating installation under laminate/parquet. CARBON HEAT can be combined with nearly all floor coverings. For floor heating it is also possible to drill, for example for a door stopper.

CEILING, WALL & FLOOR



» CARBON HEAT FLEECE



CARBON HEAT FLEECE is a diffusion-open, fleece-laminated and adhesion-optimized PET-foil. Due to its perforation it is optimal for plaster systems and putty on ceiling, wall and floor installations. (fixed usage)

Mains voltage	230 V AC
Power	110 W/m ² (E-ENERGY 36-110) 220 W/m ² (E-ENERGY 36-220)
Output per running metre	65 W/lfm (E-ENERGY 36-110) 130 W/lfm (E-ENERGY 36-220)
Secondary voltage	36 V
Protective measure	FI protection circuit 30 mA
Max. permissible ambient temperature	+70 °C
Minimum processing temperature	+5 °C
Minimum bending radius	R10 mm
Dimension	36-110: width 59 cm, length 2 3 4 m 36-220: width 59 cm, length 1.5 3 m

Construction ceiling

CARBON HEAT FLEECE

1 Bare ceiling

2 Putty

3 CARBON HEAT FLEECE

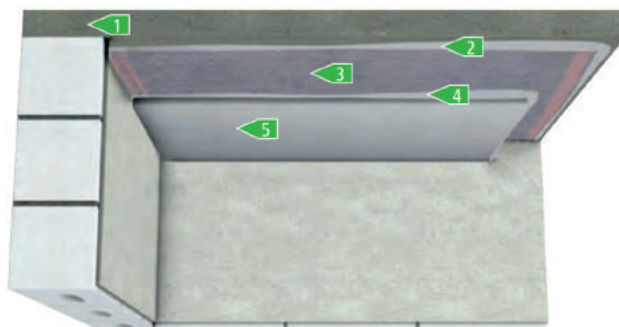
4 Putty

1 mm

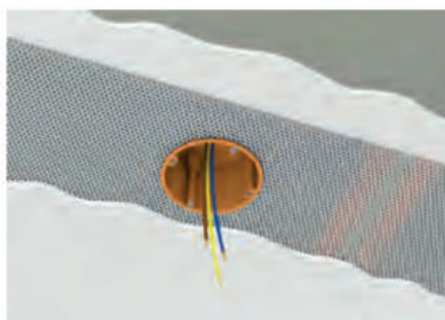
0.8 mm

1 mm

3 mm



» INSTALLATION



» ADVANTAGES AT A GLANCE

- Non-woven laminated and adhesion-optimised through perforation
- Optimized for plaster systems and fillers
- High heat conduction and rapid heat-up

Construction wall

CARBON HEAT FLEECE

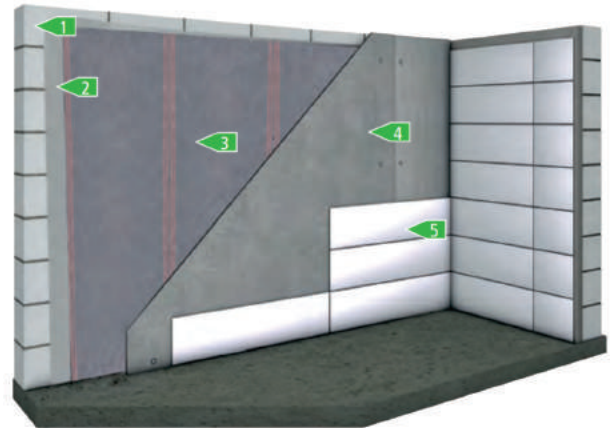
- 1 Raw wall
- 2 Putty
- 3 CARBON HEAT FLEECE
- 4 Fine putty knife
- 5 Painting, wallpaper, tiles

1 mm

0.8 mm

2 mm

4 mm



» INSTALLATION



» ADVANTAGES AT A GLANCE

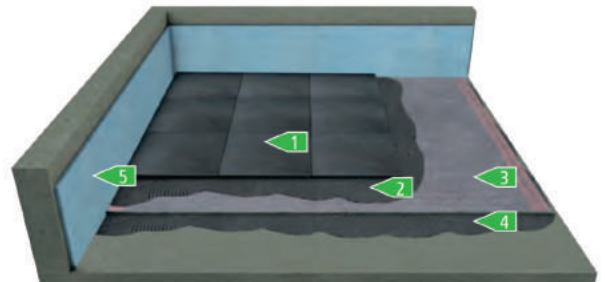
- Non-woven laminated and adhesion-optimised through perforation
- Effective protection against damp spots and mould
- Safe low-voltage technology (36 V) | Protective low voltage

Construction floor

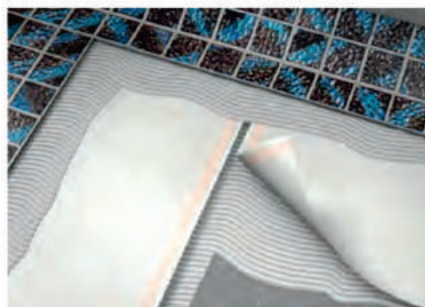
CARBON HEAT FLEECE

- 1 Tiles ≥ 10 mm | natural stone ≥ 15 mm
- 2 Tile adhesive 2 mm
- 3 CARBON HEAT FLEECE 0.8 mm
- 4 Tile adhesive 1 mm
- 5 Edge insulation strips EPS | NEO

4 mm



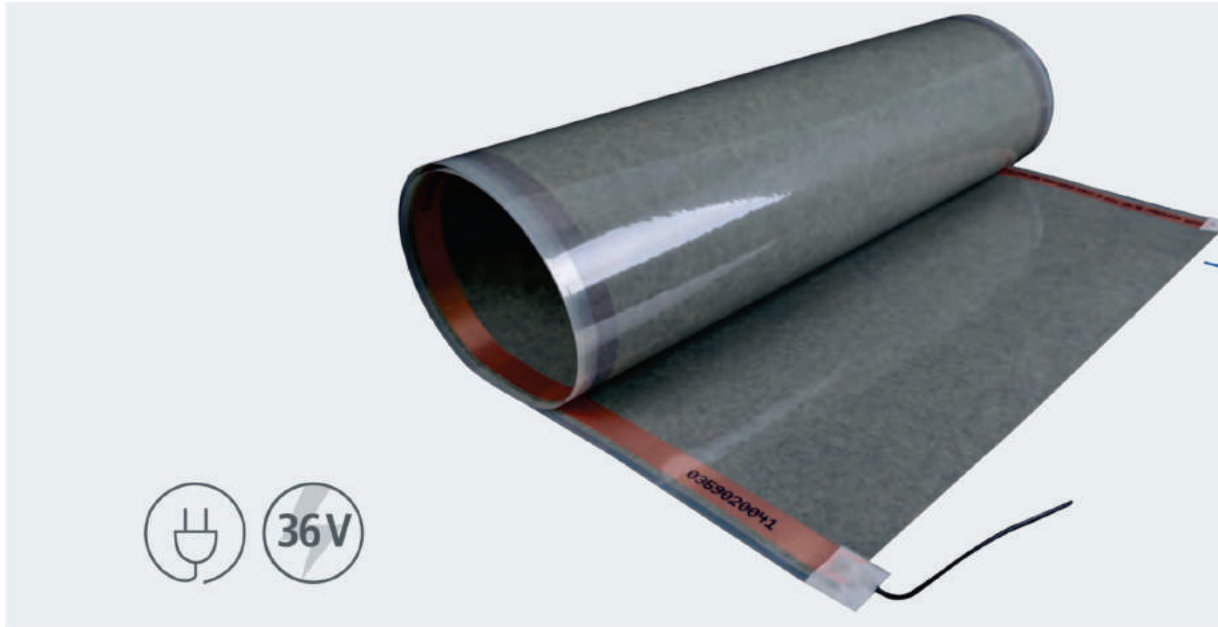
» INSTALLATION



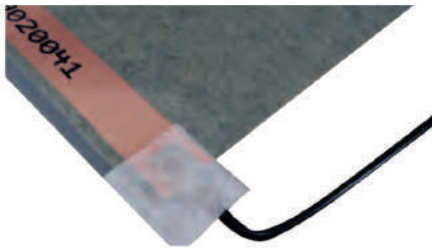
» ADVANTAGES AT A GLANCE

- Non-woven laminated and adhesion-optimised through perforation
- No installation heights
- Safe low-voltage technology (36 V) | Protective low voltage

FLOOR



» CARBON HEAT PET

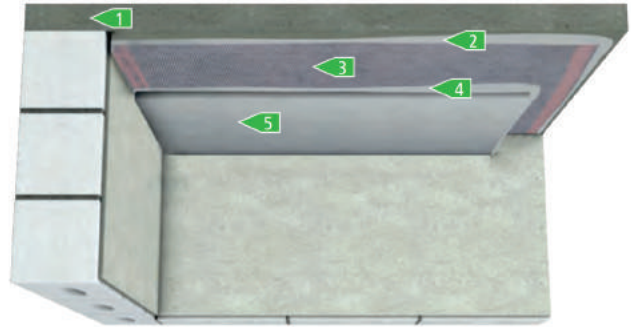


CARBON HEAT PET is a special film-coated, abrasion-resistant and mechanically resilient PET film for floor installation.
(floating installation under laminate and parquet)

Mains voltage	230 V AC
Power	115 W/m ² (E-ENERGY 36-115)
Output per running metre	70 W/lm (E-ENERGY 36-115)
Secondary voltage	36 V
Protective measure	FI protection circuit 30 mA
Max. permissible ambient temperature	+70 °C
Minimum processing temperature	+5 °C
Minimum bending radius	R10 mm
Dimension	36-110: width 59 cm, length 2 3 4 m 36-220: width 59 cm, length 1.5 3 m

Construction floor

CARBON HEAT PET



- 1 Parquet \geq 15 mm | laminate \geq 8 mm
- 2 Thermal conductive layer CF FLOOR DIRECT 1.5 mm
- 3 CARBON HEAT PET 0.8 mm
- 4 Edge insulation strips EPS | NEO

3 mm

» INSTALLATION



» ADVANTAGES AT A GLANCE

- Ideal for floating installation under laminate and parquet flooring
- Abrasion-resistant and mechanically loadable
- Special foil coated

Technology improves many things

For your wallet. For the comfort. For the environment. For the climate.

It is not laws that prohibit waste of energy, but your responsibility. And new technologies help you realise it. Modern mfh underfloor heatings can be used in renovations as well as in new buildings. They can not be defeated regarding fast regulation, low construction heights and few weight.

Improve your old buildings, make them more beautiful and usable and save energy costs in the course of the next decades. This makes you contribute on your own to solving environmental and climate problems. and that is worth it.