### ælectra® For outstanding efficiency and comfort







### The efficient and healthy way to heat

The ælectra® heating system is powered by electricity and produces infrared heat. Instead of heating up the air in a room like most conventional heating systems, it directly heats up walls, furniture and people. The ælectra® heating system can be easily installed in walls, floors or ceilings, ensuring heat is distributed efficiently and evenly while avoiding air circulation. Not only does this prevent dust and dirt from being stirred up, it also stops the air from becoming dry. Another plus point: the ælectra® heating system can be operated with 100 % green energy, offering an unparalleled level of comfort with maximum efficiency and sustainability.



#### How it works

A perforated heating membrane made from PET and carbon is invisibly installed in floors, walls or ceilings. After the electrician has connected the power, the ælectra® heating system is ready to use. Installing power sockets or drilling holes afterwards is perfectly safe and the performance of the heating system will not be affected.

The ælectra® heating system can be installed within a maximum of three days in a house or apartment.





#### Safe technology

Powered by low-voltage electricity, the membrane heats up to approximately 33°C (maximum temperature) within just 60 seconds – quickly, safely and efficiently heating all rooms to the required temperature. Safe heating is guaranteed by extralow voltage protection – 24 V or 36 V – including in wet areas such as bathrooms, kitchens or showers.

### Healthier heating without convection

Conventional convection heating is a key factor in the formation of harmful mould and the dispersion of dust in the air. By heating the air in the room, convection causes the spread of moisture, dust and microorganisms.

The infrared heat generated by the ælectra® heating system directly heats walls, furniture and people. As well as avoiding the circulation of dust and dirt, it also prevents dry air and the formation of mould.





#### Effective mould prevention

According to a representative survey\*, visible mould can be found in every sixth home in Germany. As mould usually grows in hidden places and often goes undetected, the number of homes with mould is probably much higher. High concentrations of mould spores in the air can cause breathing problems, dry coughs and even asthma, especially in people who are sensitive to mould or suffer from allergies. Persistent lung and respiratory infections can also be caused by harmful mould spores.

\*Innofact (for immowelt): Homes and living 2012. Representative study on homes and living in Germany

# Cost-effective heating without CO<sub>2</sub>

When combined with the ælectra® electricity storage unit and renewable wind or solar power generation, the ælectra® heating system can be operated with 100 % green energy. This makes the ælectra® heating system especially cost-effective to operate and also produces zero emissions.



## The perfect heating solution for apartments

In apartment buildings, the ælectra® heating system can be quickly and easily installed apartment by apartment – without visible radiators, pipes or boilers.



## The energy transition and the housing industry

The energy transition offers great potential for the intelligent use of renewable energy. Smart heating with electricity already makes economic and environmental sense, in particular when it comes to replacing night storage heating systems. It can be ideally combined heating contracting services to provide an optimum energy solution.

High-efficiency direct heating systems like the ælectra® are the obvious solution for complying with the applicable statutory requirements for energy-efficient refurbishment and low energy buildings. Furthermore, the expansion of combined heat and power in the sector is opening up the market for electricitybased heating concepts. As both the legislator and tenants are increasingly demanding higher levels of energy efficiency, there is growing pressure to take action.

# Benefits of the ælectra® heating system at a glance

- Simple and fast installation
- No maintenance required (plumber or chimney sweep)
- No visible radiators, pipes or boilers
- Maximum heat output in just 60 seconds
- Existing electrical infrastructure can be used
- Can be operated with 100 % self-generated and stored green energy
- Zero emissions
- Long service life
- Composite made from reliable and robust materials (PET and carbon)
- Excellent room climate thanks to infrared heat
- Allergy-friendly as no dust is dispersed by convection
- Dampness and mould are prevented by thermal activation of walls
- Can be easily linked to smart building solutions or local power generation





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