

## **The Efficiency**

MULTIBETON

Surface Heating  
and Cooling

**Quality saves Energy.**

---

**Economics**

---

**Efficiency**

---

**Ecology**

---

**Integration**

---

**Insulation**

**MULTIBETON**  
FUSSBODENHEIZUNG · CHAUFFAGE PAR LE SOL · UNDERFLOOR HEATING

### Economics

The top priority of a technical innovation at MULTIBETON is always quality in materials, production and workmanship. This savings are in the right place. A quality product such as MULTIBETON automatically entails good and fast installation, saving expensive installation tools and high lasting value. Adding other efficient and helpful developments to this package gives you what may at first appear to be a pricey product, but when considering all factors related to construction it's often less expensive than reputed low-cost suppliers. MULTIBETON has obtained numerous patents for technical innovations. In addition, MULTIBETON underfloor heating is quite cost-effective to operate. There are cost comparisons with conventional heating systems which entail heating costs that are so high that the heating costs alone will pay off for the acquisition costs of the MULTIBETON underfloor heating in about 10 years. In January 2009 and January 2010, MULTIBETON measured a 250 m<sup>2</sup> house (house heated with MULTIBETON.) near Bonn. The outdoor temperatures were at least between -12 °C and -20 °C. The maximum flow temperature was 32 °C at an indoor temperature of 21 °C. The house needed 11.500 kWh or 1.024 L fuel oil per year to heat. This house in Bonn is an energy-saving "4-litre house".

### The efficiency

"MULTIBETON surface heating and surface cooling"

### Efficiency

Even in the 1970s, MULTIBETON was a "friend of energy savers". This motto is now more topical than ever. Gas, oil and electricity prices are rising and builders are demanding cost-effective, independent heating systems. The low consumption data with MULTIBETON underfloor heating and cooling comes from how it is positioned in the room and the installation geometry. This ensures a large percentage of heating or cooling is delivered to the user directly in form of radiant energy. Even walls, ceilings and furniture are temperature controlled, which people perceive as very comfortable, as the temperature differences between all bodies in the room is relatively low compared to convection heating. Humans are by evolution designed to absorb sunlight and can absorb it perfectly through the skin. This is why with MULTIBETON underfloor heating, people will feel comfortable and warm faster. MULTIBETON underfloor heating is operated at low heating temperatures. More humidity is preserved, which is beneficial to the health.

### Ecology

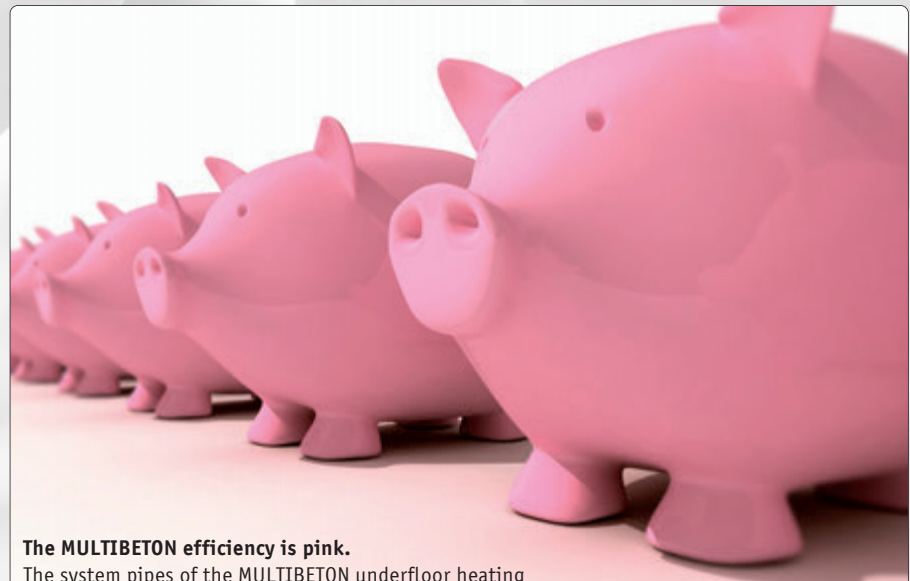
MULTIBETON systems use our planet's raw materials and energy resources sparingly. MULTIBETON system components are 100 % recyclable and 100 % energy-efficient.

### Integration

MULTIBETON surface heating and cooling is hidden in the screed or wall plaster. So there is never a heating or cooling element which for instance children can hurt themselves on or which waste space.

### Insulation

Using the MULTIBETON steel clip rail means only low-cost standard insulation is used, no expensive lining. It should be noted this insulation is also accepted by current laws and standards. Aluminium lined PUR insulation, e.g. in the basement, can be eliminated with MULTIBETON.



### The MULTIBETON efficiency is pink.

The system pipes of the MULTIBETON underfloor heating and surface cooling also have the color pink. Pink stands for pleasant comfort with high energy efficiency.

06/2021

