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REPRINT | CONCRETE PRODUCTS & CAST STONE

Efficiency in harmony with nature

**WASA®**



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# Efficiency in harmony with nature

**The impact of climate change on the environment is increasingly influencing the future. Industry plays an important role in this, as it contributes significantly to greenhouse gas emissions. Efficiency and sustainability must therefore go hand in hand in order to enable a sustainable economy that also takes into account the legal requirements for climate protection. In order to achieve this, industrial processes must be optimised further and further and made more efficient. Wasa also has this ambition and is committed to reducing its CO<sub>2</sub> emissions.**

The company, which is based in Darmstadt and Neubrunn (Thuringia), introduced an energy management system in accordance with EN ISO 50001 in 2016 and is constantly working on improvements. It was thus possible to reduce the energy demand at the production site in Neubrunn by 13 % within five years (comparison period 2016 to 2021). With an annual electricity consumption of 3.6 million kWh and a gas consumption of almost 5 million kWh, this is a considerable figure, especially in this day and age, and is of great economic importance in view of the ever-increasing energy prices.

One of the bigger energy savings was achieved by centralising the compressed air and implementing a system to find and fix leaks. In further steps, the present compressor and the dryer for the plastic granulates are to be renewed. A heat exchanger is also to be added to the existing system. These investments can save a further 11 tonnes of CO<sub>2</sub> annually.

Due to the large hall area of over 2.5 hectares, Wasa has an excellent opportunity to generate electricity through photovoltaic systems. A 350 kWp system will be installed at the end of this year and two further systems are to be added in 2025 and 2026 following a roof renovation, which is necessary for structural reasons. By commissioning all three systems, a further 520 tonnes of CO<sub>2</sub> can be saved annually.

Sustainability is also a top priority for Wasa Uniplast® Ultra. Here, Wasa relies exclusively on 100% recycled plastic, most of which is sourced from Germany, in order to improve the green footprint through short transport routes. This effect is further enhanced by the long service life of the solid plastic board and the possibility of regrounding.

“This makes Wasa Uniplast Ultra the only solid plastic board on the market that really deserves the term sustainable, because not only is regrounding a very low-CO<sub>2</sub> way of extending the service life of solid plastic boards, but also the boards are completely recyclable at the end of their service life and can thus be fed into the material cycle,” explains Matthias Bechtold, CEO of Wasa AG.

Some customers of Wasa's solid plastic board thus work with the production boards for over 25 years before they are sent for recycling. “Especially in comparison with steel production boards – which can only be produced with very high energy input and which also have a very poor carbon footprint due



*Production of very heavy large-format boards on Wasa Uniplast Ultra*



*This is where the 1.2 km-long supply line from the well arrives in the technology hall*

# VALUE IS CREATED WHERE NOTHING IS LEFT TO CHANCE.

There is no quality without ambition. No success without diligence. No dynamism without investment. The unbending nature of these truths is one of the basics of business.

WASA has stood for outstanding quality for more than six decades. We continuously invest in new production techniques and plants and conduct research into our products in order to make them even better. Because our goal is to always be one step ahead of the competition.

With you as our partner.



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*The well water cools the injection moulds for the production of Wasa Uniplast Ultra in a climate-neutral way*

to their very high dead weight and the associated transport volume – Wasa Uniplast Ultra is significantly more sustainable and thus more climate-friendly,” Matthias Bechtold points out. However, the raw materials used for Wasa Uniplast Ultra also make a major contribution to environmental and climate protection: Wasa incorporates around fifteen million kilograms – or 15,000 tonnes – of recycled plastic into its solid plastic boards every year. “These are all plastics that would otherwise have to be incinerated or landfilled – with the well-known consequences for humans and the environment, such as microplastics,” explains Matthias Bechtold.

The topic of energy and the associated CO<sub>2</sub> savings is also taken seriously in the implementation of the latest plant technology for the production of the solid plastic board. For example, a 1.2 km-long water pipe was laid to a nearby well, which Wasa acquired for its own use, specifically for the new plastic plant – its fourth in all. This new type of climate-neutral cooling saves a total of 180 tonnes of CO<sub>2</sub> emissions per year, as the moulds were previously cooled with thermal oil.

In addition to the construction of three electric charging stations by 2025, Wasa is also committed to nature conservation. For example, Wasa owns a meadow orchard that is strictly protected under nature conservation law due to the rare occurrence of the *Dactylorhiza incarnata* – a species of orchid belonging to the genus *Dactylorhiza* – especially since Wasa's meadow orchard is the only known natural location in the entire district where the orchid flowers.



*Wasa cultivates over 5,000 square metres of meadow orchard and herb meadow*

Wasa thus attaches great importance to the topic of sustainability, which extends not only to the company's products, but also to their manufacturing processes.

#### Wasa's contribution to climate protection:

- Reduction of 13 % in energy demand for cooling
- Utilisation of 15 million kg of recycled plastic per year
- 25,000 m<sup>2</sup> of solar panels for power generation
- A total of 520 tonnes of CO<sub>2</sub> savings per year

#### FURTHER INFORMATION



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