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All-plastic boards ensure continuity
and high performance in unison



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Wasa AG, 64293 Darmstadt, Germany

All-plastic boards ensure continuity and high performance in unison



■ Alexander Simos, Wasa AG, Germany

Delfing Baustoffwerke GmbH & Co. KG has been successfully manufacturing its products for almost 20 years now on all-plastic boards made by Wasa. The decision at that time to switch to the then revolutionary all-plastic boards has now proven to be the absolute right one, both in terms of cost-effectiveness and production technology.

Since the company's foundation by Willibald Delfing in 1947, family-owned Delfing Baustoffwerke has been passionately involved with concrete blocks. Its first creative concrete block systems for home, garden and public spaces were developed over the course of time, starting with pumice and lightweight concrete wall construction materials.

Today, in its third generation, Delfing is still developing and manufacturing high-quality, innovative products for a wide range of applications - concrete blocks from the classics to the environmentally friendly and sustainable. Their ideas created in concrete can be found in private living spaces and open urban areas.

After successful and promising test trials in 2003, Delfing made the decision at the beginning of 2004 to use all-plastic

boards as a production base. 7,400 all-plastic boards measuring 1,400 x 1,100 x 50 mm were ordered from Wasa at that time.

Production boards from recycled plastic

Wasa has been producing plastic boards for the concrete block industry from recycled plastic in Neubrunn, Thuringia, Germany since 1991. The very flat surface of Wasa Uniplast boards is extremely robust and impact-resistant. Thanks to its steady growth in experience and good cooperation with numerous customers in the concrete block industry worldwide, Wasa has managed to offer a reliable, long-lasting production board that still enjoys great popularity today - 30 years later.

In the early years of the Wasa Uniplast, Wasa still manufactured its all-plastic production board with galvanized steel profiles, with the board side facing the direction of production. This gave the board rigidity so that it could better withstand the high loads in concrete production facilities. Wasa delivered this type of board to Delfing Betonsteinwerke at that time.



View of part of the large company premises. The roof surfaces are covered with solar modules for sustainable energy generation



View of the production line at Delfing

The Wasa Uniplast board featured a smooth, seamless, level surface, which also allowed customers to regrind the board surface - if and when necessary. The board's design could be individually adapted according to prevailing requirements. For heavy loads in the concrete block production facilities, the board was additionally reinforced with steel inserts inside and adapted to requirements accordingly.

Through constructive exchange with customers as well as ongoing research and development with the all-plastic board, Wasa was able to present at bauma 2007 the successor model - the new Wasa Uniplast Ultra - to one of the most successful production boards on the market. In its advanced state of development, the Wasa board is still state-of-the-art today. It can do without any reinforcing by means of steel profiles. This is achieved by using recycled industrial plastic reinforced with glass fibres. Thanks to this homogeneous material mix, the board's production properties are excellent and consistent over its entire lifespan and service life. Vibration transmission with the board has also been significantly increased and improved.

Since 1991, around six million Wasa Uniplast production boards and Wasa Uniplast Ultra fibre-reinforced boards have left the Wasa factory in Thuringia for all directions in the world. Wasa can say with a clear conscience: "This type of board provides our customers with a good, completely reliable production board that is well-proven over the long-term".



View of the Wasa production halls at Neubrunn

Regrinding

Production board regrinding is, of course, also offered by Wasa. The all-plastic boards from Wasa are very well suited for regrinding due to their composition. A worn surface or one with concrete build-up can be restored to almost new condition after many years of use in a concrete block factory. Other build-ups caused by overspraying surface protection products (such as hydrophobic sealers) can also be easily removed in this way without really affecting the production base.

Wasa is also able to travel to a production facility on site with a specially designed truck trailer and grind boards at a customer's premises. This saves customers' transport costs and time - and also benefits the environment by reducing emissions. As a rule, about one week's time is needed to regrind approx. 5,000 boards. Grinding can basically be carried out without major restrictions during ongoing operations.

Since the introduction of "Wasa Grinding" - the official product name of the service offered - more than 350,000 boards have been reground. Especially in this day and age, this service offers a very quick and convenient solution for prolonging the life of existing production boards. Grinding is a very economical solution in times of ever tighter budgets because regrinding requires only a fraction of the investment of that for new boards.

Production still continues at the Delfing concrete block factory with a large part of the boards supplied in former times, without ever having reground the board surface. This naturally speaks volumes about the good production conditions at Delfing, good board handling and about the very resistant surface of this production base from Wasa.



Board grinding system installed on a trailer for regrinding on site at concrete production facilities

Good handling of the production boards and their cleaning are very important issues with regard to operational performance. Wasa recommends using a cleaning brush fitted with wiggle wire for optimally cleaning the all-plastic production board. A scraper unit can also be installed in front of this, with which to scrape coarse concrete residues from a production board. If a build-up resulting from concrete or a hydrophobic coating is visible with the all-plastic board, employing a Wasa spiked roller can possibly solve the problem.

Similarly, using release agents maintains the jointless production boards and prevents possible adhesion of concrete products to them. With "Wasa Protect", Wasa offers its own easily biodegradable, vegetable oil-based release agent emulsion. The release agent is supplied ready-for-use in an IBC container. Wasa Protect can be used without hesitation for any type of board as the product has been adapted to the boards' material properties.

The decision was made about 3 years ago at Delfing Betonwerke to replace old worn-out Wasa Uniplast boards with new fibre-reinforced Wasa Uniplast Ultra boards. It shows that mixing old and new production boards is also possible without any problems.



Using release agents maintains the boards and prevents possible adhesion of concrete products

Wasa Uniplast Ultra, with its consistent, sustainable production properties, will continue to be first choice for numerous concrete production facilities in the future. Each day, Wasa and its employees are working on continuing this success story. ■



Intensive board cleaning: scraper unit - spiked roller - scraper unit - wiggle-wire cleaning brush

FURTHER INFORMATION

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