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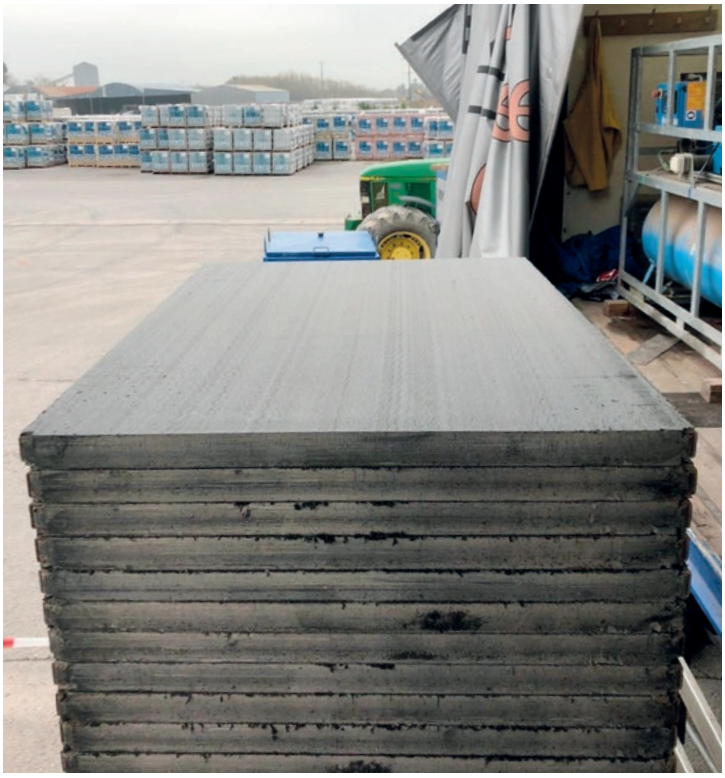


Wasa AG, 64293 Darmstadt, Germany

Prolonged life for production boards

Sven Beisel, Wasa AG, Germany

A question that countless production board users ask themselves every year: when is the best time to replace production boards? The answer is simple: just then, when production boards can no longer meet the high demands placed on them. It does not always have to be with new boards – sometimes long delivery times, budget constraints or global circumstances, such as vastly increased freight prices, can make you think about alternatives to buying a new one. This is exactly where Wasa comes in with the option of regrinding.

Before the actual step of regrinding, it is important to carefully coordinate the process with the customer's expectations. Board specifications naturally change when they are ground. This primarily concerns their thickness, but attention must also be paid to any chamfers or profiles that may be present. For these reasons, Wasa's service also includes a technical inspection and precise consultation with the customer so that the board can continue to be utilised in the usual way after processing.

This is also why Wasa always requests a few boards as samples in the run-up to the quotation stage. Engineers inspect the panels, assess their surfaces in particular, and can calculate how, for example, deflection will change after a few millimetres have been removed. On top of this, the samples can be used to determine whether 1 mm or 2 mm should be removed from each side. It is always advisable for the customer to send production boards that have been subjected to the most stress in a production facility in order to check the worst cases.

This approach allows us to jointly define with the customer exactly what the desired result should look like in the end and whether this can actually be achieved. Details of processing arrangements as well as the time and duration of the job will be discussed once the samples have been trial-ground, returned to the customer and deemed to be good.

Sample boards after test grinding

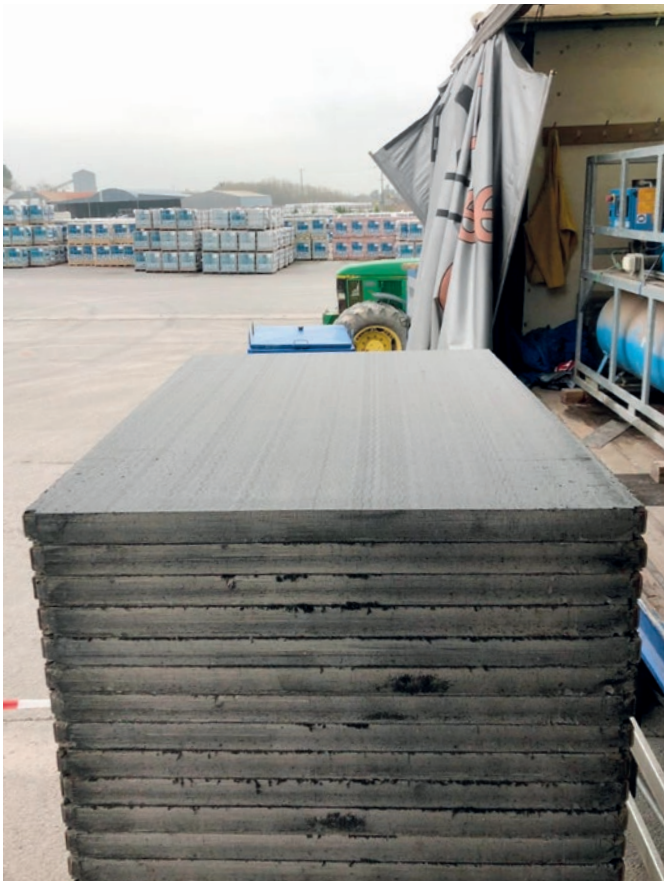
The mobile version of the grinding system is permanently installed in 2 x 40' containers

Wasa Uniplast and Wasa Uniplast Ultra

Wasa has been on the market with the Wasa Uniplast® and Wasa Uniplast® Ultra for some thirty years now – boards that fulfil very high requirements and can have a long service life. Regrinding is also a viable possibility for these boards in order to exploit their existing properties even further and longer. A worn surface can be restored to an almost new condition after many years of use in a concrete production facility. Frequently, however, a concrete build-up that has developed over their service life is also a reason for customers to have their production boards reconditioned.

Acheson und Glover in Fivemilltown decided to have their Wasa Uniplast boards reground that had been in operation since 2003. The mobile truck unit was deployed and was on site for only six days to regrind the 4,200 boards. After 18 years of hard use, the boards are now fully serviceable without restriction for many more years. The company Persimmon in Doncaster also employed this service to remove a build-up on their existing Wasa Uniplast Ultra. These boards, which had been in operation since 2016, were freed from a layer of acrylic that had built up due to spraying hydrophobic agents for protecting the blocks. Persimmon was handed back 4,000 boards almost as good as new after only one week.

sa's Neubrunn site in Thuringia. Production boards needing processing were delivered to Neubrunn and reworked. Wasa still offers grinding at this production facility today. Other additional boards are delivered for reworking once the first full shipments have been ground. Production boards that have already been ground are shipped back to the customer in a rotational process. This makes it possible to employ this service even in times of high capacity utilisation in a concrete block factory, as only a small part of the total quantity is always missing. This applies primarily to customers who are located close to Wasa's production facility, as goods can be transported quickly and economically by land.
A mobile version of this grinding system was also developed in order to serve customers who are located further away or even overseas. The system is permanently installed in 2 x 40' containers and can therefore be used completely flexibly and independently of the Neubrunn locality. The containers are delivered to the customer and regrinding takes place on the customer's premises. It is, of course, part of Wasa's service is to organise and manage the transport arrangements and the entire procedure. It means that, in consultation with Wasa, a customer only has to take care of conditions on site. A forklift truck and its driver are needed, for example, and must be provided by the customer to transport the boards to and from the machine.



Wasa Uniplast at Acheson und Glover before and after grinding

Wasa Uniplast Ultra at Persimmon before and after grinding

Thanks to Wasa's many years of solid experience as well as excellent partners in the logistics sector, all challenges have been mastered so far. The reworking itself is supervised and carried out by specialist staff from Wasa directly on site throughout the entire processing period. This means that the work can be carried out during ongoing production processes. As a rule, production boards are taken directly from the production line, inspected by Wasa's personnel and then ground at once. The board can resume operation immediately after the grinding process has finished. As soon as the total number of boards has been reground, the unit is dismantled again by Wasa employees and removed. In this way, the customer actually incurs no outlay in terms of handling or logistics.

Generally speaking, a period of approx. 7-14 days is required for a quantity of approx. 5,000 boards. The exact duration varies with the condition of the production boards and, of course, also with the question of whether the boards need to be ground once or twice per side. This, in turn, depends on how great the concrete build-up is or how deep the depressions are.

Wasa has been offering another mobile option for regrinding on site at a customer's premises since 2014 in conjunction with DeeBeeCee (Dutch Board Calibration), its cooperation partner. In this case, however, no sea containers are involved; instead, the grinding system and accessories needed are installed and stored in two trucks. With this solution, skilled Wasa employees also drive the trucks at the same time, so that the logistical burden is reduced to a customer-friendly minimum. It is also possible to react very flexibly with the trucks and thus to cover needs that arise at short notice. Complete service and organisation are assumed and carried out by DeeBeeCee and Wasa with this variant, too. As with the containers, all that is required on site is the necessary space and a few preparations such as making compressed air available or disposing of the grinding dust.

Since the introduction of Wasa Grinding – the official product name of the service offered by Wasa – more than 350,000 boards have been reground. Especially in this day and age, the service offers a very quick and convenient solution for prolonging the life of existing production boards. Regrinding is a very economical solution in times of ever tighter budgets

Wasa has been offering one other mobile option for regrinding on site at a customer's premises since 2014 in conjunction with DeeBeeCee (Dutch Board Calibration), its cooperation partner

because it necessitates only a fraction of the investment for new production boards.

Even if regrinding is mainly performed on solid plastic boards, this option is also available for softwood and hardwood boards. The extent to which grinding wooden boards might be economical is always considered on a case-by-case basis. The same applies to grinding coated production boards; although generally possible, it is usually not economical or sensible. This is because the ground wood cores have to be coated again after grinding, thus entailing high costs. Steel production boards do not allow grinding, so if their surfaces are damaged, the sheet metal must remain in its status quo or has to be replaced. ■

FURTHER INFORMATION

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