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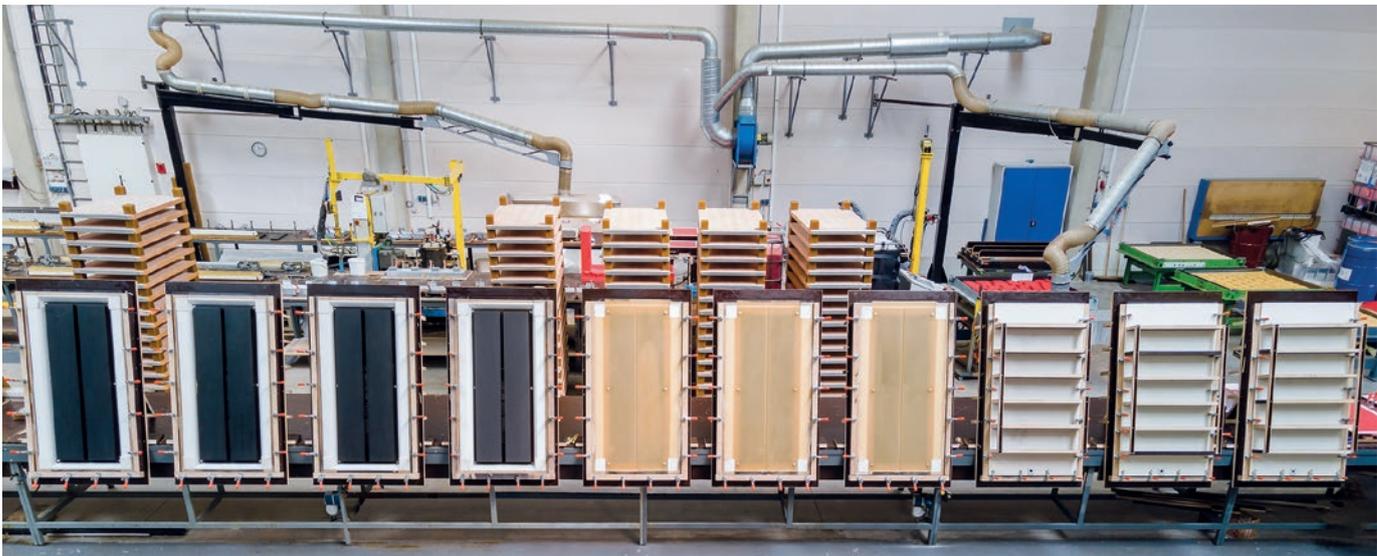
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REPRINT | CONCRETE PRODUCTS & CAST STONE

High-quality design products with modern plant technology in the wet cast process



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-  Abcic
Associação Brasileira de Construção Industrializada de Concreto
-  ABTC
-  aci
American Concrete Institute
Always advancing
-  American Concrete Pipe Association
-  AMIB
ASSOCIATION OF MANUFACTURERS OF INTERLOCKING BLOCKS
-  ASSOBETON
-  bibm
-  mpa
Member of the
International Precast Association
-  CERIB
Concrete Expertise
-  concretenz
LEARNED SOCIETY
-  IAB
INSTITUTE FOR ADVANCED
INDUSTRIALIZATION OF BUILDING
-  ICI
-  icpi
Interlocking Concrete
Precast Institute
-  OPMA
INTERNATIONAL PRECAST
HOLLOWCORE ASSOCIATION
-  NCMA
-  NATIONAL PRECAST
ENERGY EFFICIENT CONSTRUCTION
-  NPCA
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PRECAST BRICK AND BLOCKS MANUFACTURERS ASSOCIATION
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-  syspro

Wasa AG, 64293 Darmstadt, Germany



High-quality design products with modern plant technology in the wet cast process

The concrete block industry is never short of ideas. Wet-cast moulds made of polyurethane are an excellent way to realise even the most complex geometries and surfaces in concrete. Concrete block products manufactured using this process are now sold to end customers as high-quality design products. Due to the almost limitless possibilities, there is an ever increasing demand for individual polyurethane moulds for concrete products in garden and landscape construction

A detailed report on Wasa's innovative solution Wasa Stacking for automatic wetcast lines with carrier systems and polyurethane moulds already appeared in issue 3.2022 of CPI. This is where Wasa's many years of know-how in the concrete block industry, both in the underlayment sector and in the precast and wetcast industry, sets it apart. The Wasa Group easily fulfils the repeatedly expressed customer wish to have everything supplied from a single source with its ingenious underlay and mould concepts.

Innovation can always come up where customer requirements and industry knowledge come together. This is what Wasa practices and promotes not only with the concrete block plants themselves, but also with many leading manufacturers and suppliers in the concrete sector in a wide spectrum. Together with the customers, new challenges keep coming up, ultimately setting new standards and advancing development. This is the passion that we live by every day at Wasa.

The symbiosis of the Woodplast underlay panels, which serve as stack carrier systems with additional spacers, and the wet-cast moulds produced at Wasa's plant in Neubrunn excite customers around the globe. The flat surface is an important advantage for Wetcast production, as unlike concrete products manufactured using the Drycast process, Wetcast products are made with the subsequent surface and its slender details coated below.

The Wasa Construct division is experiencing global growth within the Wasa Group in the area of wetcast and precast solutions. Despite the "past" Covid pandemic, Wasa's decades of experience and established quality in the market ensured full order books.



Wetcast Multi-Form assembly mounted on Woodplast® stack carrier system. Support slab with feet and self-standing polyurethane mould.

Wetcast mould construction

To implement the numerous ideas of our customers, highly committed employees work every day to find the best possible solution for concrete block producers. First, the desired stone products are designed in modern 3D CAD programmes together with the construction department and the customers, and final details such as surfaces, geometries, chamfers, radii and spacers are determined. Then the basic model is CNC milled, usually from PU block material. The customer's chosen surface for the later concrete block product is usually taken from a natural stone.

When bringing together the basic body and surface, Wasa focuses not only on the look and feel, but also on the functionality of the final stone product. The section matching the geometry of the desired product is selected from the large natural stone slab with a great deal of passion and a trained eye for detail. The large natural stone slabs are cast using a

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.



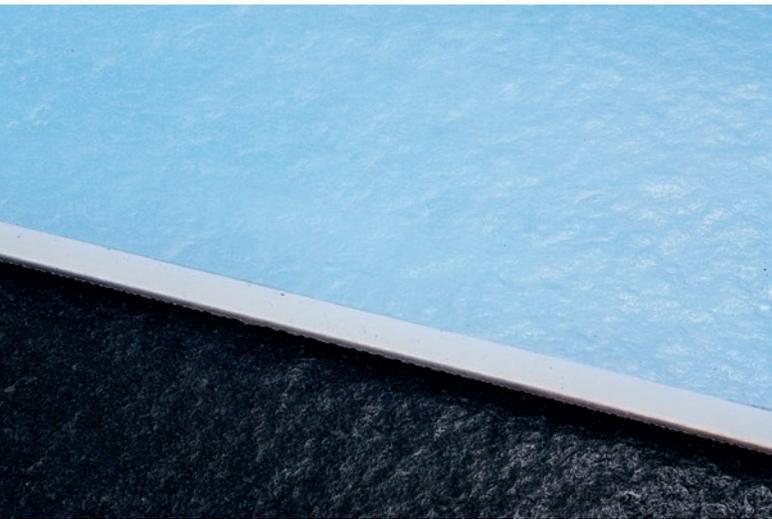
WASA BOARDS

WASA CONSTRUCT

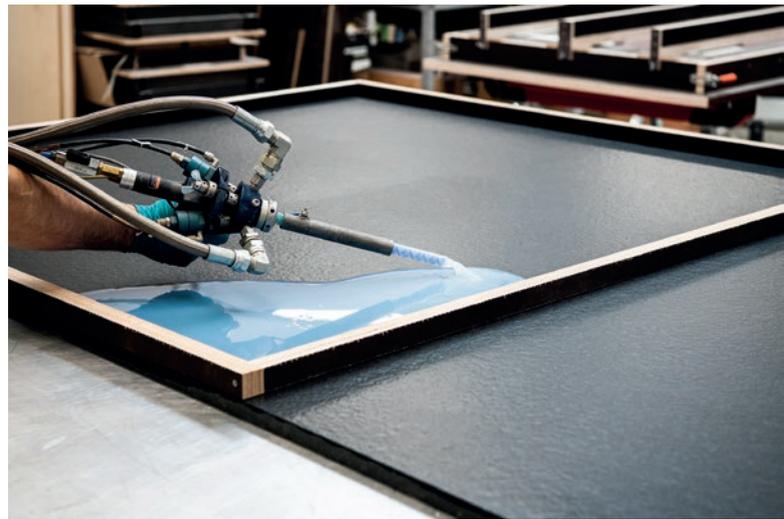
WASA ACCESSORIES

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Granite Nero surface silicone cast and natural stone. Very sharp and detailed reproduction of the surface.



Production of a silicone form liner with Wasa Stonecast Granite 1 200/GR/01 surface for a customer project in the USA with stone size 1219 x 1219 x 63.5 mm (48 x 48 x 2 ½ inch)

silicone mat and thereby preserved for future projects or for subsequent extensions of the stone system, e.g. to include block steps or pool copings. The advantage of silicone casting is a detailed and delicate surface reproduction. Silicone provides excellent mechanical properties, especially for moulding applications where models with severe undercuts need to be reproduced in concrete.

In the mixing head, components A and B of the silicone are blended bubble-free. The silicone mat is stored in a roll and will be spread again on the casting table when needed.

When the basic body and surface are brought together, edges that would pose a risk of injury when walking bare-foot, for example, are smoothed if necessary and filled on the

surrounding chamfer. After that, the models undergo a final test before they move on to the first casting.

For the realisation of customer projects, Wasa offers a choice of different polyurethane systems with very high quality standards and very good properties in four degrees of hardness: Shore-A30, Shore-A45, Shore-A65 and Shore-A85. The polyurethane system to be used is also fine-tuned to the customer's requirements. Among the possibilities are coatings for steel parts, hermetic form liners, moulds for large patio slabs and large-format façade elements, moulds for small-format paving stone products and facing bricks, and even unique concrete manufactures. The good workability and high abrasion resistance of the materials used, as well as the dimensional accuracy and form stability, are well known and highly valued in the industry for over 15 years now.

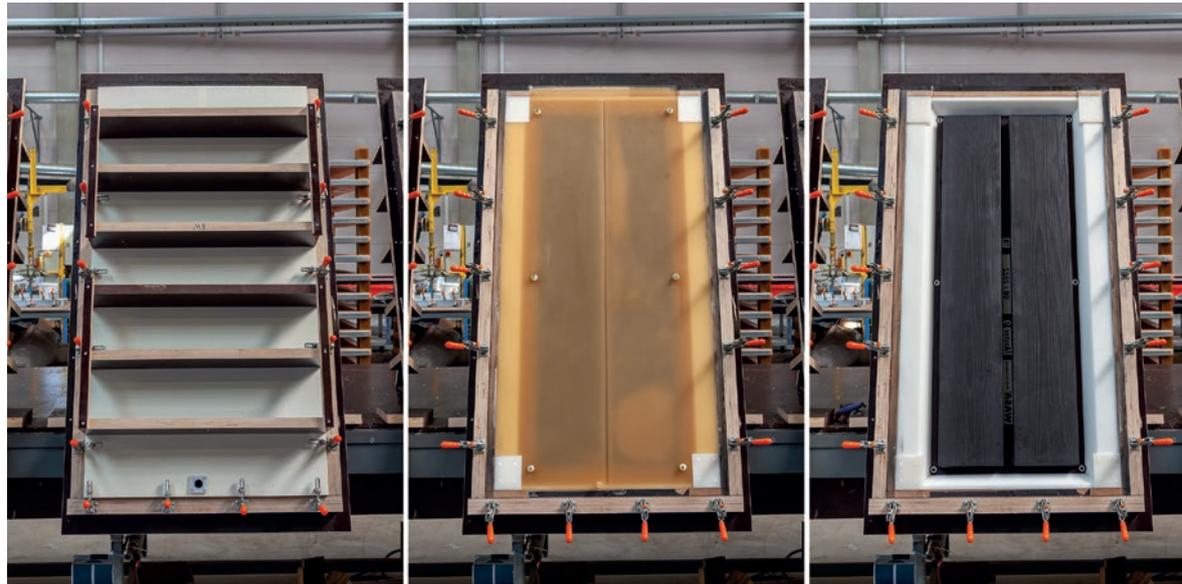


Dismantling the silicone cast 1: After the silicone has dried, the frame is removed



Dismantling the silicone cast 2: Demoulding of the produced silicone matrix.

Various steps of mould production in the closed casting process for a customer project in France. Surface Wasa Woodcast Timber.



From the single mould for manual production to the multi-mould with several stone honeycombs, via fully automated wetcast production lines, everything can be cast and produced in Wasa's production area.

The moulds cast in the closed process are distinguished by virtually bubble-free mould walls and surfaces. The closed grouting also ensures compliance with exactly the same PU thicknesses in the moulded base and optimally executed flatness to match the production board.



Naturally inspired

For greater flexibility and creativity:
WASA WETCAST moulds and innovations.

With WASA WETCAST, we enable the automated and continuous manufacture of high-quality paving slabs in individual shapes and with unique surface structures. Our in-house model construction department will work with you to develop a prototype completely in accordance with your wishes, before your casting shop manufactures robust polyurethane resin moulds.

Contact us and learn more about WASA WETCAST.



WASA WETCAST



Various production stages in the Wasa Construct production hall in Neubrunn, Thuringia

Wasa's production staff pay meticulous attention to the necessary demoulding times and correct storage at 20°C of the freshly produced polyurethane moulds to guarantee their customers a perfectly cured product.

Self-standing moulds are enjoying growing popularity. If the stone geometry permits, Wasa uses the moulds that do not require an additional support frame. The customer can save money and resources in the long term.

Depending on the use and requirements, the moulds can also receive further add-ons.

For example, the specially developed thin mould flap protects the production board against concrete contamination and also prevents the very problematic build-up of concrete residues between the production board and the mould. If desired, the wetcast moulds can also be equipped with an RFID tag to store mould information, completed filling cycles, concrete recipes and much more.

The mould model will be matched to the existing or planned production plant. Demoulding using a roller is widespread in north America. Self-supporting yet flexible polyurethane moulds were developed especially for this technique.

At international trade fairs, such as the upcoming World of Concrete 2023 in Las Vegas, Wasa will present its innovative solutions for wetcast and precast under the Construct brand.

FURTHER INFORMATION



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