

MC

MAGAZINE
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aktiv





Dear Readers,

Concrete is the foundation of modern construction – from industry and infrastructure to high-rise buildings. However, the demands on this material are evolving rapidly: sustainability, resource conservation and innovation are more important than ever.

The concrete industry faces the challenge of developing proven materials while meeting increasingly stringent environmental regulations. We support these efforts by developing sustainable, durable and efficient concrete solutions that meet the changing needs of the market and society – whether through EFC, recycled concrete or the use of new cement types and contaminated aggregates or sands. Read more about this in our latest Main Feature.

We are also working with our partners to develop new technologies. In this issue, for example, you'll find out more about AI-assisted concrete production, which can help reduce CO₂ emissions. We also highlight recent projects where MC solutions have played a key role – from the restoration of historic buildings, to the construction of manufacturing plants, to the renovation of infrastructure around the world. As always, we round off this issue with internal updates and personnel news.

I wish you an inspiring read!

Yours

Nicolaus M. Müller

Nicolaus M. Müller

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Jaques Pinto (r), Regional Director of MC in LATAM, and Matias Honnen, Managing Director of MC-Bolivia, and his sister Marion Honnen symbolically cut the ribbon at the inauguration ceremony.

On 5 December 2024 MC-Bauchemie has reached a significant milestone in Bolivia with the inauguration of its new production facility in the Guapilo Industrial Centre, Santa Cruz de la Sierra. The opening ceremony was attended by an esteemed group of 80 prominent guests from the construction and industrial sectors.

The state-of-the-art plant is dedicated to the production of liquid products such as acrylates, concrete admixtures, curing agents, waterproofing solutions and release agents. In its initial phase, the plant will have a production capacity of up to one million litres per month to meet the needs of the Bolivian market, while also creating opportunities for export to international markets. Looking ahead, MC-Bauchemie plans to expand the plant by 2026 to include the production of powder-based products, such as pre-dosed cementitious mortars, further cementing its commitment to innovation and growth in the region.

Modern production plant as a driver of international growth
"This plant is more than just a production facility; it's a testament to our belief in Bolivia's potential for growth and its ability to become a regional leader in construction materials", said Jaques Pinto, LATAM Regional Director of MC, during the inauguration ceremony.

The new facility is in line with MC's broader international expansion strategy in South America, joining a network that includes operations in Brazil, Chile and Peru.



View of MC's trade fair stand at BAU 2025

MC AT BAU 2025: A GREAT SUCCESS

From 13 to 17 January 2025, MC-Bauchemie, together with its sister company Botament, showcased its expertise at BAU in Munich – the world's leading trade fair for architecture, materials and systems. The event attracted over 180,000 visitors from 58 countries eager to explore the latest developments in the construction industry.

At the joint MC and Botament stand, innovative system solutions took centre stage, along with engaging live presentations featuring experts from both companies moderated by Saskia Naumann. Numerous industry professionals, long-standing partners and customers seized the opportunity for professional exchange. A special highlight was the "Hero Beer Party," co-hosted by MC-Bauchemie and Botament on Wednesday evening. With live music and a relaxed atmosphere, 250 guests enjoyed an excellent opportunity for networking.

Museum by Tadao Ando

SUCCESSFUL REVITALI- SATION OF THE EXPOSED CONCRETE

The Stone Sculpture Museum of the Fondation Kubach-Wilmsen in Bad Münster, near Bad Kreuznach, designed by Tadao Ando, was revitalised in several stages in 2024 using MC's high-quality concrete cosmetics.

Opened in 2010, the museum is considered the world's only contemporary stone sculpture museum. It combines exposed concrete with a reconstructed 18th-century half-timbered barn, topped with a traditional slate roof. Over the years, the museum's concrete had deteriorated, with uneven wear and contamination affecting the surfaces. To restore the original surface structure, the concrete was first ground down and treated with MC's fine filler Emcefix F lang. For the surrounding wall crown, the highly durable, frost- and de-icing salt-resistant Emcefix floor R3 mortar was applied to withstand extreme weather conditions. After professional resurfacing, a comprehensive concrete retouching was carried out using Repacryl to achieve a uniform and harmonious exposed concrete appearance. Finally, the environmentally-friendly hydrophobisation Emcephob L was applied to provide long-term protection against harmful weather conditions.

The result: a flawless concrete finish that preserves the minimalist architecture and restores the museum's original brilliance.



You can find the detailed project report on our website:
<https://bit.ly/4lqEm66>



MC's concrete cosmetics and retouch beautifully enhance the museum's stone sculptures.

MC-DUR LF 680 RECEIVES BAST LISTING



MC-DUR LF 680 can be used to seal bridges, load-bearing structures and parking decks safely and quickly. The special polyurethane resin has been BAST listed as the first reactive resin since the end of 2024.

In view of increasing traffic loads and dilapidated bridges, rapid repairs are required. The sealing of the road surface is crucial to protect structures from water and de-icing salts. While epoxy resins have long curing times and are sensitive to moisture, MC-DUR LF 680 impresses users with its short reaction times and insensitivity to moisture and cold. Applicable from as low as 2 °C, the resin enables flexible processing, even on young concrete substrates, and can be processed like a conventional epoxy resin. Thanks to the listing in

the German Federal Highway Research Institute's BAST compilation of certified substances and material systems in accordance with H V-PUR*, it is now available as a high-performance alternative for waterproofing measures in Germany.

* H V-PUR stands for "Instructions for the production of waterproofing systems made of a polymer bitumen welded membrane on a polyurethane sealant or scratch coat for concrete engineering structures". It is a guideline issued by the German Road and Transportation Research Association (FGSV) in 2024.

NEW ALL-ROUNDER SEALANT



MC-Bauchemie has launched MC-FLEX PU 22 Construct, a versatile, moisture-curing polyurethane sealant. Whether sealing façades, installing doors and windows or managing wastewater, the flexible sealant offers reliable solutions for indoor and outdoor areas.

MC-FLEX PU 22 Construct adheres to many building materials such as concrete, brick, glass, wood and metals, is ideal for crack repairs and expansion joints and impresses with its weather resistance and elasticity. Thanks to its easy handling, fast curing and recoatability, the sealant is particularly user-friendly. It has KIWA certification for the wastewater sector and sewage treatment plants and is available in 600 ml sausage and 280 ml cartridge packaging.

MC-KKS/B RECEIVES ETA CERTIFICATE

Cathodic corrosion protection (CCP) is a fast-acting, cost-effective and largely non-destructive method of repairing chloride-contaminated structures. The worldwide unique and patented system solution MC-KKS/B, which MC and Grillo Zinc Metalls GmbH have developed in co-operation, helps to permanently and

economically maintain damaged but still stable reinforced concrete structures in their current condition.

The system saves time and money, as chloride-contaminated concrete does not have to be removed and long curing times are eliminated. Thanks to the new ETA 24/0300 certificate, the performance and safety of the system is recognised throughout Europe.



NEW CONDUCTIVE FLOORING SYSTEM

With MC-DUR PowerCoat 200 AS and MC-DUR PowerCoat 260 AS, MC has added a new conductive industrial flooring solution to its MC-DUR PowerCoat PU/cement hybrid flooring system.

The PU/cement hybrid flooring system MC-DUR PowerCoat offers high chemical, mechanical and thermal resistance and has been specially developed to permanently withstand a wide range of extreme loads, which can also occur simultaneously.

The new conductive system is highly resistant and also protects against electrostatic charging.



For more product information, visit our website:
<https://bit.ly/41ZHFrS>



Great optimisation potential for the concrete industry



The alcemy founders Robert Meyer (L) and Leopold Spinner



AI-SUPPORTED CEMENT AND CONCRETE PRODUCTION: MORE PRECISE QUALITY, LESS CO₂

Sustainability and CO₂ reduction are key issues in the construction industry. Since 2018, the Berlin-based start-up alcemy has been working on an innovative method for producing cement and concrete that is not only more cost-efficient and environmentally friendly but also ensures consistently high quality.

The demand for resource-saving and clinker-reduced concretes is increasing, as the most important and resource-intensive component of cement is limestone, the so-called clinker, which is fired at more than 1,400 °C. Its production is not only energy-intensive but also releases considerable amounts of CO₂. Nevertheless, the clinker plays an essential role in the strength of the cement. To enable precise prediction of cement strength as well as closer and more accurate quality monitoring of concrete production, alcemy founders Robert Meyer and Leopold Spinner developed AI-based solutions. This allows production processes to be analysed and optimised.

AI ensures more efficient and climate-friendly cement and concrete production

Both software solutions are based on machine learning with existing data. The AI for cements continuously analyses quality-relevant data from chemistry, mineralogy and particle size distribution. On this basis, the software calcu-

lates dynamic target values for the mill control station operator to further improve the uniformity of the cements despite fluctuations in the limestone, granulated blast furnace slag and secondary fuel, for example. The accuracy of the predictions depends on the quality of the data. The AI for ready-mixed concrete predicts the quality parameters of slump flow and w/c ratio in real time during production and delivery. It links plant data such as dosing, temperature and active power with sensor values from the truck mixer such as oil pressure and water level. This provides plant personnel with a transparent overview of the actual concrete status during the journey and on the construction site.

Both AI solutions are a basis for more efficient and environmentally-friendly cement and concrete production and a reduction in the CO₂ footprint of up to 50%, for example by reducing the proportion of clinker in interior components. They therefore make an important con-

tribution to increasing efficiency and decarbonising the industry. They are already being used in over 50 German cement plants and ready-mix concrete plants.

New prospects for sustainable construction

MC-Bauchemie has been working with alcemy since 2024 and is part of the German Sustainable Concrete Leaders Network, which was founded by alcemy two years ago and is intensively involved in the development of sustainable concrete. In joint information events and webinars, MC also shares its experience and expertise in concrete technology, thus underlining its pioneering role in sustainable construction, now also with AI.

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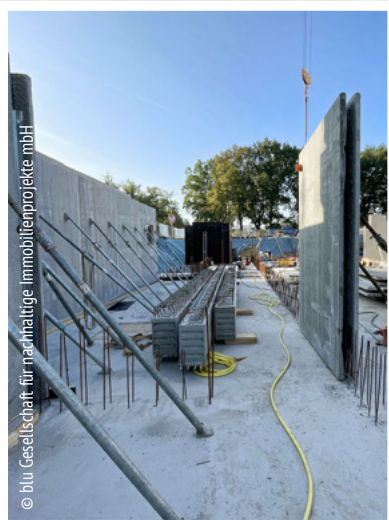
CONCRETE IN TRANSITION – SUSTAINABLE AND SPECIALTY CONCRETE

Innovative solutions for the concrete industry

Concrete is the backbone of the construction industry. However, the sector faces significant challenges. High CO₂ emissions from cement production, scarce resources such as sand, and increasingly stringent environmental regulations are driving the need for innovation. Sustainable and forward-thinking solutions are more in demand than ever.

In the new construction project "4HÖFE" in Norderstedt, the concrete for 800 m³ of precast elements and 2,200 m³ of ready-mix concrete was produced completely cement-free. This enabled the construction of approximately 300 apartments. By using EFC, a CO₂ saving of up to 75% was achieved compared to conventional concrete.

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Concrete is the backbone of the construction industry and will remain indispensable for industrial, infrastructure and high-rise construction in the future. Rapid urbanisation is driving the demand for housing and infrastructure, further increasing the need for concrete. However, the industry faces major challenges. One of the key issues is the high CO₂ footprint of cement production – and consequently, concrete manufacturing. Additionally, the scarcity of natural resources such as sand and aggregates as well as their contamination present further challenges. Stricter environmental regulations and the European Emissions Trading System (ETS2) are also putting increasing pressure on the industry to innovate. To tackle these challenges, sustainable and innovative solutions are required – an area where MC-Bauchemie’s expertise in concrete technology is already making a significant impact.

The concrete industry must drastically reduce its CO₂ emissions. As the construction sector plays a key role in global climate strategies, innovative approaches are essential to both minimise environmental impact and meet the growing demand for building materials. Companies are implementing various measures to establish more sustainable production methods. Modern cement plants are increasingly investing in CO₂ capture and recovery technologies to reduce emissions directly at the source. The use of alternative fuels and energy-efficient production methods can further reduce the ecological footprint of cement manufacturing.

CO₂ reduction and sustainability in concrete

The development of CO₂-reduced and climate-friendly concretes with little to no clinker content is a major focus of research. Through innovative formulations and alternative binders, CO₂ emissions can be significantly reduced compared to conventional concrete without compromising technical performance. More than a decade ago, in collaboration with Australian company WAGNERS, MC-Bauchemie developed a cement-free

concrete known as EFC (Earth Friendly Concrete). This geopolymer concrete offers exceptional compressive strength, high sulphate resistance (XA3) and increased acid resistance. In fact, sulphate exposure further strengthens the material, enhancing its durability. This makes EFC ideal for structures exposed to harsh chemical conditions. MC-Bauchemie provides activators for EFC, which alkalise the alternative binders, such as ground granulated blast-furnace slag and fly ash used in place of cement. Additionally, a newly developed polymer improves workability. EFC has received its first general technical approval (AbZ) from the German Institute for Building Technology (DIBt) for use in precast concrete elements. It is also being used for Germany's first cement-free concrete wastewater pipes, which have been available under the "next.beton" brand for over two years.

EFC was also used in the new construction project "4HÖFE" in Norderstedt from 2023 to 2024. In this project, all 800 m³ of precast elements and 2,200 m³ of ready-mix concrete were produced without cement, enabling the construction of approximately 300 apartments, including 71

climate-friendly social housing units built using timber skeleton construction. By using EFC, up to 75% of CO₂ emissions were saved compared to conventional concrete.

Additionally, the use of recycled and eco-friendly raw materials is continuously increasing. Concepts such as Urban Mining – the reuse of building materials from demolished structures – and the use of recycled concrete (R-concrete) are gaining importance. These approaches not only conserve natural resources but also reduce dependence on primary raw materials and minimise landfill waste, though their usage remains limited so far.

Concrete made from 100% recycled aggregate

MC-Bauchemie's concrete technologists played a key role in developing concrete made entirely from 100% recycled aggregate. This innovative mix was first used in 2024 for the construction of a school building in Hamburg (see MC aktiv 1/2024). One major challenge of R-concrete is the higher water absorption of recycled aggregates. However, by combining the classic concrete admixture Centrament N9 with MC-PowerFlow evo 530, using MC's

latest PCE technology, the workability of the concrete was optimised. As a result, the concrete could be transported, processed and compacted just as easily as conventional concrete. This project impressively demonstrates how innovative concrete technology strengthens the circular economy while preserving natural resources like stone and gravel.

High-quality recycled concrete with a lower CO₂ footprint in the Netherlands

In the Netherlands, the company Urban Mine specialises in the production and supply of sustainable, high-quality recycled concrete that maintains the same quality, composition and properties as concrete made from primary materials. Urban Mine utilises MC-Bauchemie's expertise and specially developed concrete admixtures for R-concrete and has over 15 years of experience in recycling concrete demolition waste. The Dutch company has perfected the recycling process in the Netherlands. The concrete is 100% circular and, according to the manufacturer, produces up to 80% fewer CO₂ emissions than conventional concrete. The company recovers concrete from demolished buildings and recycles it in an energy-neutral process using solar power and rainwater collection.

Composite cements with calcined clay

With the increasing demand for sustainable building materials, composite cements are gaining importance. Alternative materials like calcined clay are being used as substitutes for traditional Portland cement clinker. Composite cements with calcined clay offer multiple advantages – most notably a significant reduction in CO₂ emissions.

Since the calcination of clay occurs at temperatures between 600 and 850 °C, the energy requirement is much lower than that of traditional clinker production, which requires temperatures of around 1,450 °C. This leads to major energy savings and a significant decrease in CO₂ emissions.

However, there are challenges associated with using calcined clay in cement. Workability can be affected depending on the binder composition, and some applications may experience mechanical limitations.

MC-Bauchemie's specialised additives as a solution

To ensure the performance and workability of concrete made with new composite cements, innovative concrete admixtures are essential. MC-Bauchemie's special additives, when combined with PCE-based superplasticisers, act as "sacrificial polymers". Field tests have shown that these additives not only improve the flow properties of the concrete, making processing easier, but also ensure consistently high concrete quality.

The importance of such technologies will continue to grow in the future. The market is moving towards more climate-friendly concretes, such as EFC or R-concrete, which enable a more sustainable approach to construction. MC-Bauchemie's specialty additives not only provide solutions for current applications but also support future developments, such as Urban Mining and the increased use of recycled building materials. Furthermore, this technology improves the workabil-

ity of concrete when using sands containing clay or lower-quality sands.

Specialty and sustainable concrete – not without concrete chemistry

To meet these challenges, the concrete industry must invest in research and development, adopt new technologies, and collaborate closely with research institutions and construction chemistry manufacturers. The future of the industry lies in the development of sustainable, intelligent and efficient concrete solutions that meet the evolving demands of both the market and society.

MC-Bauchemie is a leader in this field, already setting tomorrow's standards with innovative technologies and sustainable solutions – whether for EFC, R-concrete, new cement types or contaminated aggregates and sands. With its extensive expertise, MC's concrete technologists provide robust and reliable solutions for all these challenges and future developments.

Your contact



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The "Musterbude" of OTTO WULFF Construction Company in Hamburg is made of R-concrete, which partly contains 100% recycled aggregates and was used for the first time in the construction of a school in Hamburg.

© Miguel Ferraz



MC-Bauchemie has been working on the development of environmentally-friendly building materials with a reduced CO₂ footprint for many years. The aim is to develop sustainable alternatives to conventional products that fulfil both the ecological requirements of the EU Green Deal and the qualitative requirements of the standards.

At the same time, the demands for sustainable building materials are constantly increasing. Low-emission, plasticiser-free and silicone-free products are becoming increasingly important, particularly in concrete fillers. MC-Bauchemie meets these requirements with innovative solutions: Nafuquick eCO₂ and Emcefix F eCO₂ are sustainable alternatives for classic concrete levelling compounds. MC-Proof 800 Next is an environmentally-friendly alternative for traditional building sealants. All three products not only offer a considerable reduction in CO₂ but also impress in terms of quality and fulfil the current requirements of sustainable construction.

Nafuquick eCO₂: The sustainable universal levelling compound

With Nafuquick eCO₂, MC-Bauchemie has added a particularly environmentally-friendly variant to the tried-and-tested Nafuquick range. The universal filler is characterised by a CO₂-reduced formula and is ideal for a wide range of applications and repairs to concrete surfaces in shell construction, for example for filling cavities.

- Over 42% CO₂ reduction compared to conventional Nafuquick
- Largest grain size: 0.35 mm – medium-fine filler with a robust feel
- Colour: pebble grey – specially developed for modern CO₂-reduced concretes

Emcefix F eCO₂: CO₂-reduced fine filler

Emcefix F eCO₂ expands the Emcefix range with a sustainable option for levelling and repair work in concrete construction. The polymer-modified fine filler is easy to mix

with water and is ideal for large-scale and detailed repairs as well as for fine levelling work on exposed and architectural concrete – also ideal for high-quality precast concrete.

- Over 34% CO₂ reduction compared to Emcefix F lang filler
- Largest grain size: 0.25 mm – finer than Nafuquick, ideal for fine, smooth surfaces
- Colour: pebble grey – suitable for modern CO₂-reduced concretes

MC-Proof 800 Next: An environmentally-friendly reactive waterproofing solution

MC-Proof 800 Next is a CO₂-reduced reactive waterproofing product designed to protect building components in contact with the ground. Suitable for both new builds and renovations, it offers superior crack-bridging, UV and aging resistance. This product can be applied without a primer and is compatible with subsequent painting or rendering. The environmentally friendly solution is easy to apply, low-emission and dust-reduced, making it ideal for sustainable construction.

- Utilises recycled raw materials in both formula and packaging
- 20-25% CO₂ reduction compared to conventional MC-Proof reactive waterproofing materials
- 40-70% reduction in waste depending on the packaging unit

With these cutting-edge sustainable building materials, MC-Bauchemie is setting new industry standards and offering innovative, future-proof solutions for eco-conscious construction projects.



Efficient flat roof waterproofing with Nafuflex Easy Tech 1

FAST, RELIABLE SOLUTION FOR VILLA IN BOSNIA AND HERZEGOVINA



View of the shell of the luxury villa

In Ilijaš, Bosnia and Herzegovina, an efficient waterproofing solution for a flat roof was implemented as part of a construction project for a large villa. The use of Nafuflex Easy Tech 1 and MC-FastTape provided a durable and resistant waterproofing solution. The ease of application and speed of installation impressed both the local contractor and the building owner.

The main challenge was to ensure a reliable and durable waterproofing system that could withstand the region's cold winters and hot summers. The installation was carried out in several stages using modern waterproofing products from MC and thanks to good weather conditions, it was easily completed in one day in December on a flat roof area of 570 m².

Technical challenges with the flat roof waterproofing

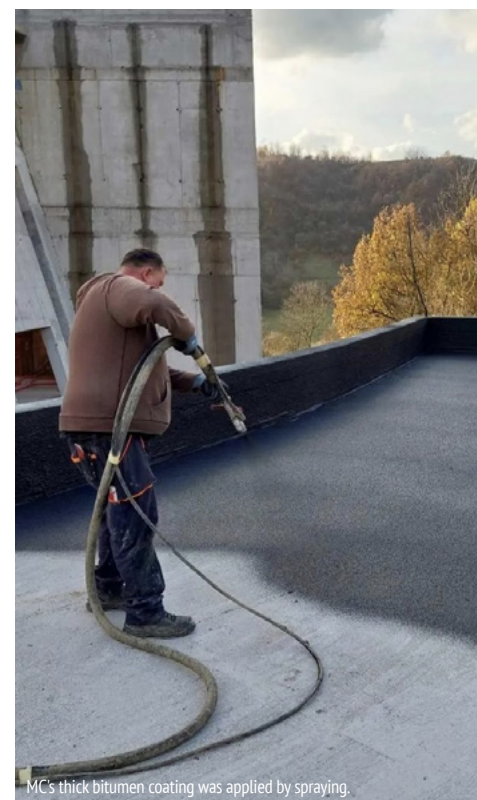
Waterproofing the flat roof presented the project team with several technical challenges. A uniform layer thickness was required to ensure optimum waterproofing performance. In addition, the corners and connections had to be specially reinforced to guarantee the long-term durability

of the waterproofing. As the material used is not UV-resistant, it was necessary to apply a suitable post-treatment to ensure the longevity of the waterproofing.

Efficient and precise waterproofing solution for maximum durability

To achieve optimal waterproofing, Nafuflex Easy Tech 1, a fast-drying, single-component, sprayable polymer-modified bitumen thick coating (PMBC), was used. It was applied by spraying in two layers. A total thickness of 4 mm had to be achieved on the horizontal surface. The client was impressed not only by the speed of application, which saved time and money, and the excellent crack bridging, but also by the environmentally friendly nature of the sealant, as Nafuflex Easy Tech 1 does not contain any solvents.

With MC-FastTape, a fleece-backed thermoplastic elastomer coving sealing tape was also used in the corners and connections of the flat roof to provide additional reinforcement. The MC products and the precise procedure used led to the quick and efficient implementation of the waterproofing measures. Construction progress was accelerated, and the client was impressed by the ease of application and the high quality of the solution.



MC's thick bitumen coating was applied by spraying.

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MC-DUR PowerCoat is extremely resistant to chemical, mechanical and, above all, thermal stresses.

MC's flooring system ensures on-time construction progress

EFFICIENT FLOOR RENOVATION IN A CAVIAR FACTORY NEAR BERLIN

The conversion of a former large-scale bakery in Blankenfelde-Mahlow, south of Berlin, into a production and storage facility for a caviar factory presented significant challenges for the construction team. Thanks to the expert consultation and innovative solutions provided by MC-Bauchemie, an efficient renovation of the flooring structure was achieved, ensuring that production could commence as planned in December 2024.



The storage rooms were also coated with an industrial flooring system from MC.

The construction project involved the complete transformation of a large bakery into a caviar factory and the comprehensive renovation of the flooring in the new production facility of Lemberg Lebensmittel GmbH. The existing screed had to be replaced to meet the high demands of caviar production while ensuring a smooth construction process. The primary requirements included the load-bearing capacity of the floor and the proper coating to guarantee optimal hygienic conditions. Therefore, the architect opted for an MC screed system along with the PU/cement hybrid flooring system MC-DUR PowerCoat, which offers exceptional resistance to chemical, mechanical and especially thermal stress.

Screed replacement and flooring installation in record time thanks to MC's flooring system
During the renovation, it became evident that the initially planned reinforcement of the existing screed with the MC-DUR 1177 W-VA system did not achieve the required surface tensile strength. This unforeseen development necessitated a swift and pragmatic solution to prevent delays in the construction schedule. A complete replacement of the bonded screed became unavoidable.

A floating screed was then installed using MC-Floor TurboCem, MC's fast-setting cement for the production of early load-bearing and dimensionally stable screeds. The screed thickness of 75 mm was applied over standardised insulation layers in compliance with the German Energy Saving Regulation (EnEV). This ensured rapid walkability and

load-bearing capacity of the floor, preventing any delays in the construction progress.

In close collaboration with all involved in construction, an optimal application method for the MC-DUR PowerCoat system was developed. The company Hainer Schrader from Lower Saxony was contracted for the coating. The coating application with MC-DUR PowerCoat took place in June 2024, ensuring that the production area was ready in time for machine installation. Between July and October 2024, the remaining staff rooms, storage areas and traffic zones were coated by Sako Bau GmbH with a durable epoxy resin system consisting of the primer MC-DUR 1320 VK and the epoxy coating MC-DUR 1322.

Caviar factory starts on schedule
Thanks to the professional coordination between the client, architect, contractors and the screed and industrial flooring experts from MC-Bauchemie, as well as MC's flexible and solution-oriented approach, the complete flooring system was successfully implemented on schedule despite initial challenges. As a result, the caviar factory was able to commence production as planned in mid-December 2024, much to the satisfaction of all construction participants.

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Efficient tunnel repair and protection

CLIENT PLACES FULL TRUST IN MC'S TUNNELLING SOLUTIONS



The high-quality tunnel coating was applied by spraying.

Last year, high-quality repair products from MC were used to protect the Jornalista Fernando Vieira de Mello tunnel in Sao Paulo, Brazil. Spanning 583 m, this tunnel is one of the city's key traffic arteries. Given its significance for urban mobility, the project demanded swift and sustainable rehabilitation, coupled with advanced technical expertise.

The rehabilitation posed multiple challenges, including extensive wear and tear due to continuous traffic and a short downtime for repairs. With its extensive experience in tunnel renovation and a specially customised product system, MC convinced the client to rely exclusively on its solutions.

Meeting high demands: heavy wear and short downtime
To effectively seal water-bearing cracks and fissures, the fast-foaming, single-component injection resin MC-Injekt 2133 was used. MC-Injekt 2700 L, a two-component injection resin with an extended processing time, was used to close and seal cracks and cavities. Both injection products streamlined and accelerated the tunnel's sealing and reinforcement work. For rapid and effective concrete repair within the tunnel, Nafufill CR was selected. This 3-in-1 repair mortar integrates a corrosion inhibitor and bonding agent, ensuring increased application speed and reduced execution time – critical factors for maintaining an active traffic structure. Additionally, Nafufill KM 250, a polymer-modified, fire-resistant PCC/SPCC mortar (Fire rating Class F120), was applied. Designed for reprofiling up to 100 mm in thickness, it withstands extreme environmental conditions and offers exceptional compressive strength, enhancing both fire resistance and structural integrity.

First use of MC-Color T 21 in Brazil ensures long-term protection
A standout feature of the project was the application of MC-Color T 21, an innovative protection coating, used in Brazil for the first time. This ready-to-use, high-performance, acrylate-based surface protection offers CO₂-resistance, water vapour permeability and hydrophobic properties, safeguard-

ing against carbonation, chloride ingress and dirt accumulation – typical challenges in tunnel environments. A significant advantage of MC-Color T 21 is its high light reflectivity, which improves light distribution within the tunnel, thus increasing visibility and safety while reducing energy consumption. It is also exceptionally easy to clean, which facilitates maintenance, thus significantly lowering long-term maintenance costs. To ensure correct application, MC provided hands-on technical training for applicators, both at MC sites and directly on site in the tunnel.

The rehabilitation of the Fernando Vieira de Mello Tunnel was an important project in enhancing São Paulo's urban mobility. MC's tailored solutions enabled the successful restoration and protection of this critical tunnel within the required timeframe, ensuring a safer and brighter passage for thousands of daily commuters.



MC-Color T 21 can be applied directly from the bucket.

Your contact



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Immaculate plaster surfaces - view of the restored church

High-quality render systems from MC provide lasting protection

RESTORATION OF ST PAUL'S CHURCH IN HAMBURG SUCCESSFULLY COMPLETED

As part of extensive restoration measures, the Catholic St. Paulus Church in Hamburg-Billstedt received a high-quality interior render system. Thanks to a tailor-made solution from MC, the masonry is now protected for the long term and the church shines in new splendor.

From June to November 2024, interior rendering work was carried out at St. Paulus Church in Hamburg. The renovation was urgently needed, as the old render had suffered severe damage. Cracks, moisture penetration and visual defects significantly affected both the structural integrity and the appearance of the church. Due to the heterogeneous composition of the masonry, which partially consists of mixed masonry, a specialised approach was required. The complex geometry of various structural elements – including the chancel apse, arches, and pillars – also demanded exceptional craftsmanship from the applicators.

MC cement-free plasters provide long-lasting protection and a high quality finish

A specially tailored system was used for the renovation, offering a durable and sustainable solution for the damaged building structure. To ensure long-lasting adhesion of MC's cement-free render system, stainless steel ribbed expanded metal was first installed as a support in the masonry. The next step involved applying the bonding coat Exzellent STP 540, which ensured optimal adhesion to the mixed masonry. This was followed by the levelling render Elegant MRP, which evened out irregularities and created a uniform base for the subsequent render layers. The final render layer also consisted of Elegant MRP, which, thanks to its moisture-reg-

ulating properties, provided a resistant and stable surface. The finishing coat was chosen from the same product line to achieve a high-quality and aesthetically pleasing final appearance.

MC's render system now provides long-term protection for the church's masonry, as it can absorb moisture and harmful salts and release them to



Spray application in full swing

the render surface without causing damage. This creates a moisture-regulating and mould-inhibiting effect, ensuring a healthy and pleasant indoor climate in the church.

MC expertise brings new splendour to St Paul's Church

Through close collaboration with MC, the restoration of the interior of St. Paulus Church in Hamburg was successfully completed. MC's product management, application technology and field service teams provided expert consultation as well as extensive support in planning and execution. This, along with the excellent workability of the selected products, significantly contributed to the project's success.

The church now boasts a long-lasting, stable and aesthetically appealing interior design. However, the renovation not only ensures the preservation of this historic building but also creates a pleasant indoor environment for parishioners and visitors – for many years to come.

Your contact



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Efficient precast production for Winkelmann Group

STRABAG UTILISES MC'S CONCRETE EXPERTISE FOR PRODUCTION HALL IN RIMAVSKÁ SOBOTA



MC's expertise covers columns, beams, girders, purlins and trusses, as well as walls and foundation beams.

The Winkelmann Group has built a state-of-the-art production facility in Rimavská Sobota, Slovakia, where hot water tanks for heat pumps will be manufactured in the future. With an investment of € 110 million and the creation of 450 new jobs, this project represents a significant economic milestone for the region. MC-Bauchemie supported Strabag in the production of the high-quality precast concrete parts required for this by using high-performance concrete admixtures and high-quality release agents.

The new production facility covers an area of 44,000 m² and, in addition to the production hall, also includes an assembly hall and a logistics warehouse. The complex is complemented by a modern car park and a comprehensive infrastructure with roads, paths and green areas. The general contractor MH Invest commissioned STRABAG Pozemné staviteľstvo s.r.o. with the production of all precast concrete elements such as columns, beams, girders, purlins and binders as well as walls and foundation beams. Between May and September 2024, a total of 6,000 m³ of precast elements were produced, including large binders up to 34 m long and with a volume of 17 m³.

The challenges: time pressure and high-quality requirements

Several challenges had to be overcome during the production of the precast concrete parts. On the one hand, a high surface quality had to be achieved to fulfil both the visual and functional requirements. On the other hand, the production process had to be optimised to ensure the rapid manufacture and assembly of the prestressed precast concrete elements. These framework conditions required a reliable and efficient solution.

High-performance products from MC for optimised processes

To fulfil the high requirements, Strabag relied on proven products from MC-Bauchemie. The PCE-based concrete admixture MC-PowerFlow 3131 VMA ensured optimum workability and high early strength of the concrete. This accelerated the demoulding of the components and made the entire construction process more efficient. In addition, the high-performance release agent Ortolan Premium 702 was used to ensure perfect surface quality.



The prefabricated parts are assembled step by step.

Thanks to its special formulation, bubble formation was reduced and a homogeneous, flawless concrete surface was achieved. This successfully fulfilled both technical and visual requirements.

Accelerated construction and first-class concrete surfaces

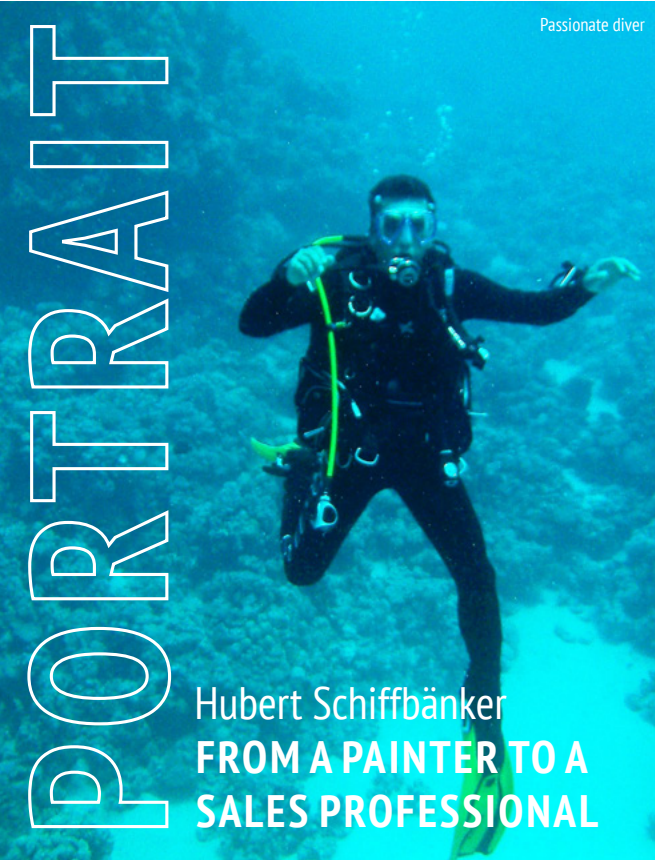
By using these MC products, the precast concrete elements could be produced efficiently and to the highest quality. The optimised demoulding times contributed significantly to meeting the tight construction schedule. With the planned commissioning of the production facility in summer 2025, the plant will not only make an important contribution to the economic development of the region but will also drive the further development of innovative heating technologies.

The excellent cooperation between MH Invest, Strabag and MC-Bauchemie was a key factor in the successful realisation of the project in Rimavská Sobota. It impressively demonstrates how industrial construction projects with high requirements can be realised successfully and quickly using efficient and sustainable methods in precast element production.

Your contact



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Hubert Schiffbänker
FROM A PAINTER TO A
SALES PROFESSIONAL



Travelling with his wife



Enthusiastic biker

Born in the Austrian city of Linz, Hubert began his professional journey after completing his apprenticeship as a painter and his military service. He initially worked for a renowned painting company in Linz. However, as he was unable to advance his career there, he transitioned to the Austrian retail chain Libro, where he spent five years as a branch manager. Seeking new challenges, he then moved into the sales department of an electronics company, where he discovered his passion for field sales.

MC proves to be the ideal move

After five years in sales, he returned to the construction industry and took on a role as a site manager for a large company specialising in corrosion protection and industrial flooring – a position that also brought him into contact with MC. In 2006, he was offered the opportunity to join MC, and moving into the MC

sales department turned out to be the ideal decision. Even after nearly two decades, he continues to enjoy working for MC. Today, in addition to overseeing his home territory of Upper Austria, Salzburg, and parts of Styria, he also manages major customer projects throughout Austria.

A sales professional with passion, perseverance and success

One of the highlights of his career is a project for one of Austria's largest bakeries, which has coated more than 40,000 m² of industrial flooring with MC-DUR TopSpeed in recent years – a prestigious achievement he is particularly proud of. His work on sewage treatment plant projects in Tyrol also ranks among his greatest successes. Hubert describes the secret of his success as follows: "It's not just about selling products; it's about providing solutions my custom-

ers can rely on. And above all, it's about trust and long-term partnerships. That's what MC is all about." As the longest-serving employee at MC Austria, Hubert is known for his tireless dedication – early starts at four in the morning are not uncommon for him. At the same time, he understands the importance of maintaining a balance.

Switching off with family, travelling and sport

In his private life, the father of a daughter and grandfather of a five-year-old grandson enjoys spending time with his family and traveling with his wife. "Our next big adventure will be a safari in Tanzania," says Hubert, looking forward to the trip in November this year. A cruise is also on the horizon. Other hobbies include scuba diving, motorbiking, and mountain biking – the latter being the perfect way for him to unwind after a demanding week at work.

INTRODUCING: MATTHIAS ROSENBERG

Key pillar in the laboratory

Matthias Rosenberg (53) began his career at MC in 1991, starting an apprenticeship as a coatings laboratory technician after graduating from high school. Born in Gladbeck, he now works in the Polymers & Resins Laboratory within the R&D department in Bottrop, where he focuses on developing new products in the field of epoxy resins. In addition to his work in R&D, Matthias plays a key role as a training officer and is an active member of the works council. With more than 30 years at MC, he looks back with pride on the company's evolution, which he has experienced firsthand. What has impressed him most over the years is the opportunity to engage with diverse cultures. Outside of work, Matthias is a passionate sportsman. He has been playing handball for his local club since 1980 and continues to contribute as the club's treasurer. For many years, he was also an enthusiastic marathon runner, traveling across Europe with his wife to compete. Although he now focuses on shorter distances, he still jogs regularly and participates in smaller races. However, his true passion lies in ornithology – the scientific study and observation of birds. Despite his many interests, MC has remained a constant in his life. Matthias still feels very much at home at the company and hopes to spend the rest of his professional journey here – right through to retirement.



Wishing you continued
success and enjoyment!

PERSONNEL AT A GLANCE

New employees



KONRAD WENKEBACH (47) took over as Chief Financial Officer (CFO) of MC-Bauchemie on 1 February 2005 and has since been responsible for the Group's financial organisation at national and international level. His responsibilities include accounting, consolidation, controlling, IT and taxes. He holds a degree in business administration and reports to Dr Ekkehard zur Mühlen. Konrad Wenkebach has many years of experience in the commercial management of financial organisations of international companies in various sectors. Among other things, he spent three and a half years in the USA as CFO of a global manufacturer of aircraft seats, where he worked for a total of 13 years. He also has extensive IT experience and has been involved in the implementation of new ERP systems. He started his professional career with a BIG 4 accountancy firm, where he successfully qualified as a chartered accountant.

GREG BURTON (43) has been appointed Managing Director of MC-Building Chemicals UK (MCUK), assuming his role on 2 December 2024. He brings extensive experience in leading construction materials companies, having held various technical and operational leadership roles between 2000 and 2016. In 2016, he joined a globally renowned company in the construction chemicals sector, initially as Regional Sales Manager and later as National Sales Manager, where he was responsible for a nationwide sales team. As Managing Director of MC-UK, Greg Burton aims to further expand the Concrete Industry (CI) business segment and implement a new production facility for concrete admixtures. Additionally, he plans to drive growth in the Infrastructure & Industry (IN) segment, strengthen MCUK's market share in both CI and IN, and explore opportunities for entry into the residential construction sector.



ALEXANDER SANTOS (47) started as General Manager at MC-Bauchemie Philippines in October 2024 and reports directly to Justyna Iwanska, Strategy & Development Manager for South East Asia & Oceania. After completing his MBA in Business Management at the University of Southeastern Philippines, he has worked for over 15 years in the sales of construction chemicals products for well-known international companies. He has extensive experience in sales of construction chemical products and specialises in waterproofing, sealants, adhesives, coatings and ceramic products. He also has extensive expertise in setting up and managing distribution networks in the Philippines. With his industry expertise, he will further develop MC's business in the Philippines and strengthen its market presence.

Changes

GUIDO RAIMANN (62) concluded his role as Regional Director for Ukraine, Georgia, Bulgaria and the Baltic States on 31 December 2024, after more than 20 years of dedication to MC in Eastern Europe. As of 1 January 2025, he has taken on new responsibilities at MC's sister company, Saxoboard Wellness & Duschsysteme GmbH in Großenhain, a leading manufacturer and system provider of customised shower and wet room solutions. In his new role, he is responsible for human resources, commercial operations and process and quality optimisation, serving as a link between Saxoboard and MC's sister companies both in Germany and internationally. Additionally, he continues to provide advisory support for the Central Eastern Europe region within the MC Group.



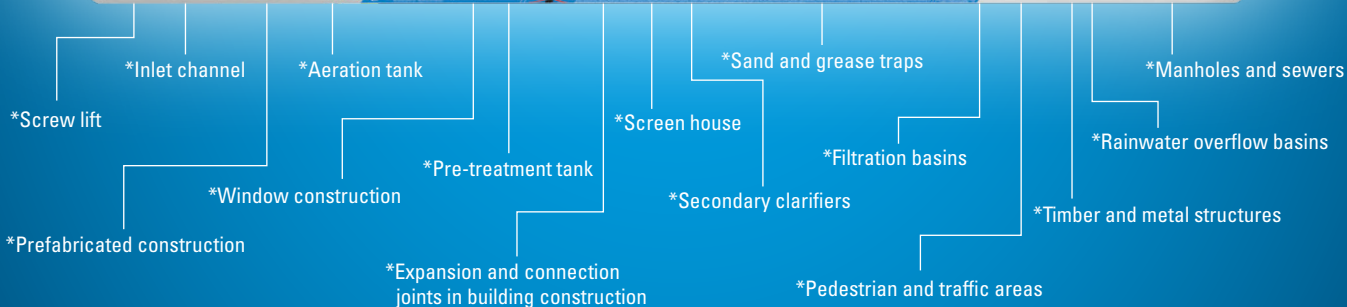
Group photo from the certificate presentation: Top row (from left to right): Guido Balgar (Workshop Manager HDT), Noah Schröck (Electrician HDT), Niklas Müller (R&D Quality Assurance), Stefan Polinowski (R&D Polymers & Resins) and Nicolaus M. Müller. Bottom row (from left to right): Gulsum Kutluk (Segment Flooring & Refurbishment), Timon Reiser (Technical Helpdesk Concrete Repair), Elena Fadejew (HR Consultant) and Melissa Brand (Corporate Development). Dennis Böhmer (Maintenance for Production Technology) was absent from the photo due to holiday leave.

Certificate handover and takeover

Managing Director Nicolaus M. Müller presented six apprentices from MC and its sister company HDT GmbH with their apprenticeship certificates. They have been taken on by MC and HDT and are now working in various departments and companies of the MC Group.

We congratulate them and wish them every success!

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