

Sopro

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Projects 2021

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Hotels &
restaurants

Science Congress Center Munich

Project

- » New conference and service centre as focal point of research campus in Garching
- » Courtyard by Marriot Hotel (256 rooms)
- » Stellaris Apartment Hotel (159 rooms)
- » Innovative bath/shower sealing system incorporated in hotel bathrooms
- » Mall with shops, supermarket, catering outlets and fitness studio
- » Three catering kitchens

Signboard

Design practice	twa, Munich
Applicator	W. Fenkner GmbH, Braunschweig
Client	GALILEO – Neue Mitte am Hochschulcampus Garching GmbH & Co. KG, Garching
Contract volume	415 bathrooms, 3 catering kitchens, corridors, foyer and sanitary facilities
Completion	2021



Products

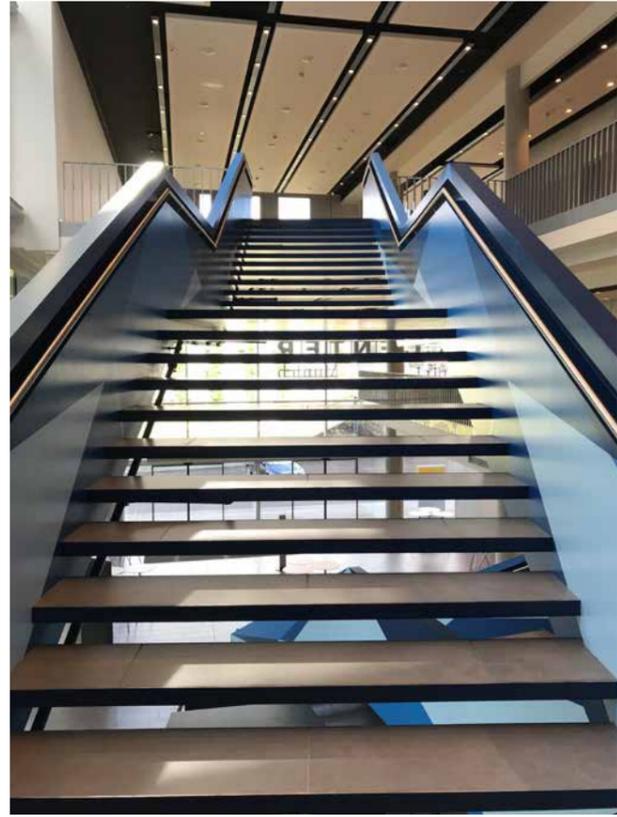
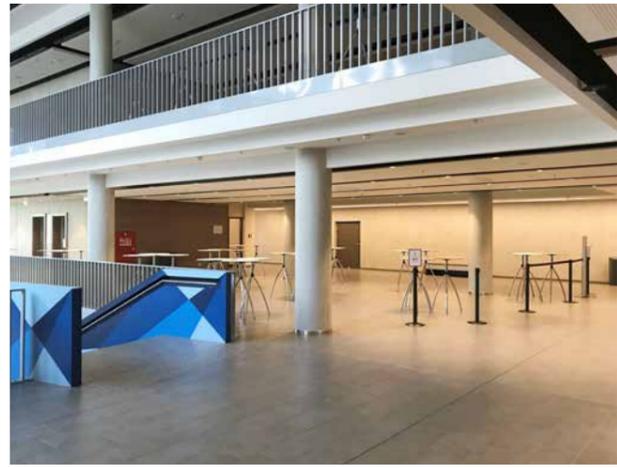
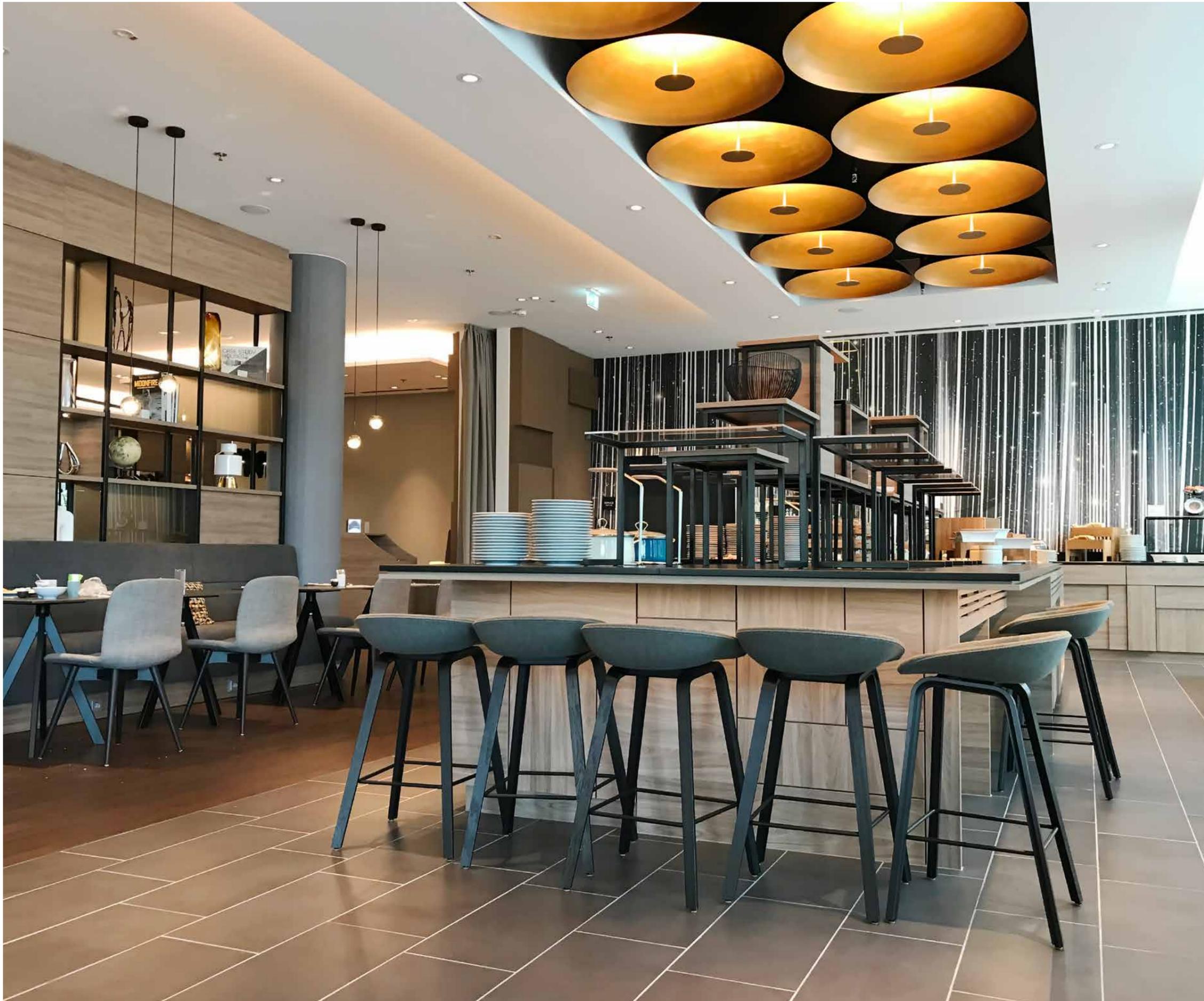
- Sopro RAM 3 454 renovation and levelling mortar
- Sopro FF 450 flexible tile adhesive
- Sopro MG 669 MG-Flex® highly flexible tile adhesive
- Sopro SC 606 Classic C2 tile adhesive
- Sopro SC 608 Classic S1 flexible tile adhesive
- Sopro PU-FD 570/571 surface sealant for walls/floors
- Sopro TDS 823 two-component turbo sealing slurry



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Science Congress Center, Munich



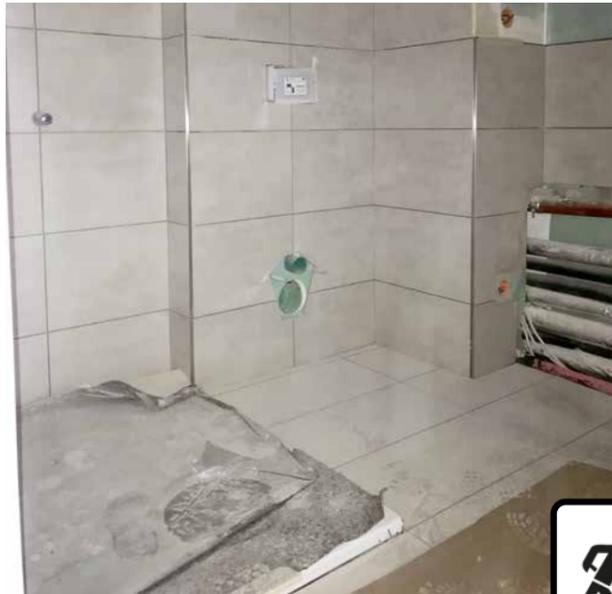
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New spaces for new ideas

Tailored tile-laying solutions backed up by practical expertise

With the Science Congress Center Munich (SCCM), a new “focal point” has been added to the dynamically expanding Garching research campus just outside Munich. Measuring around 200 m by 48 m, the glass and grey-concrete block offers a somewhat unusual mix of higher education, research, business, retail, catering and leisure. In other words, there is a bit of everything. Sopro products were specified as part of tailored, all-round system solutions for the tiling operations in all parts of the monumental scheme – from the bathrooms, shower banks and sanitary facilities to the foyer, corridors, restaurant areas and catering kitchens. The use of system products vouched for reliable performance, cost-effectiveness and sustainability.

Located on Munich’s doorstep, the imposing new Science Congress Center Munich (SCCM) on the Garching campus of the Technische Universität München (TUM) combines learning, living and lifestyle. Within the austere geometry of the elongated block lies a multi-faceted landscape of functional areas: a teaching and congress centre with 1,322-seat auditorium, 14 conference and seminar rooms, a Courtyard by Marriott hotel plus a Stellaris apartment hotel, the latter targeting people who come to teach or study at the TUM for only limited periods. Additional facilities include office accommodation, retail outlets, restaurants, a fitness centre and even a church. Two below-ground levels house parking decks and an access route to the nearby underground station. With their design concept, Nickl & Partner Architekten brought together the broad mix of uses in a building that makes a clear-cut urban and architectural statement. Upon closer inspection, the strict geometry of the building envelope reveals itself as a fragmented configuration of interlocking “L” shapes. This lends the exterior its unmistakable character while at the same time creating an intriguing inner landscape of squares, voids, openings and through views.

Vibrant, high-amenity centre

Research establishments are invariably places pulsating with life. Each day, the Garching campus is frequented by over 25,000 people from across the globe. The SCCM has provided the campus with both a new centrepiece and a new culture. It is a place of meeting and encounter, a place for international dialogue and a place that adds to the quality of life of occupants, visitors and local residents. The SCCM’s bright contemporary atmosphere and wide-ranging offerings – such as the Courtyard by Marriott Munich Garching Hotel, the Stellaris Apartment Hotel, restaurants, shops and sports facilities – not to mention the nearby Isar floodplains, woodland and Garchinger Heide nature reserve guarantee visitors high amenity and an enjoyable stay. The ambitious project aim of achieving a carbon-neutral campus is reflected in many features and details of the complex. The internal layout and inner courtyard concept, for example, ensure ample daylighting for the entire building along with natural supply and extract ventilation. Also noteworthy is the outstanding energy performance of the facade assembly, with natural ventilation provided by box-type double windows with integral sunshading. Other factors reducing the SCCM’s carbon footprint include its immediate proximity to an underground station and the provision for over 100 cycle parking spaces.

Certified performance

Apart from achieving an efficient combination of form and function, the architects’ sustainable design approach is heavily geared to human needs. The internal circulation routes are configured so as to allow equally easy use of the building by disabled and able-bodied people. Ample daylighting, generously sized activity spaces and safe materials are further criteria that fed into the design of the new central hub at the Garching campus. In performing the substrate preparation, waterproofing and tile-laying works to walls and floors, the team from Braunschweig-based contractor W. Fenkner GmbH gave high priority to the use of premium-quality products.

This was key to upholding a consistently high standard throughout the large contract, which encompassed over 400 bathrooms, three catering kitchens, corridors, spacious foyer, shower banks and all other sanitary facilities.

Sopro system solutions and the associated products – with which the Braunschweig specialists have achieved outstanding results in the past on both large- and small-scale contracts – were specified for the entire tiling package. The utmost care was exercised in system selection and workmanship, for which they were able to draw on the expert support of Sopro’s Project Consulting team. The solution adopted to accommodate the freshly laid screeds in the hotel bathrooms, for instance, involved use of the highly flexible Sopro TDS 823 two-component turbo sealing slurry as waterproof membrane in conjunction with the S2-grade Sopro MG 669 MG-Flex® highly flexible tile adhesive. The wall and floor surfaces in the heavy-duty catering kitchens were waterproofed with Sopro PU-FD 570/571 surface sealant prior to installation of the tile covering with Sopro FF 450 flexible tile adhesive. The imposing SCCM scheme was the first development on this scale to feature Sopro’s new bath/shower sealing system as a versatile solution for incorporating bathtubs and shower trays in the bathroom membrane in a wide range of installation situations. Although the overall SCCM project was only completed in 2021, the waterproofing works to the hotel bathrooms commenced back in 2017. Since then, the Sopro bath/shower sealing system has been successfully used on many other major projects.

aja resort, Garmisch-Partenkirchen

Project

- » New, 229-room luxury hotel and wellness resort at foot of Zugspitze mountain
- » Use of Sopro system solutions for waterproofing and tiling in swimming pools, catering kitchen, foyer areas and ancillary spaces, covering over 3,000 m²



Signboard

Design practice	SMAP Seeger Müller Architekten, Berlin
Applicator	Wallner Fliesen & Naturstein e. K., Eging am See
Client	DSR Hotel Holding GmbH, Hamburg
General contractor	Gustav Epple Bauunternehmung GmbH, Stuttgart
Contract volume	Approx. 3,000 m ²
Completion	June 2021



Products

- Sopro SBP 474 swimming pool render
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro DSF 623 flexible RS sealing slurry
- Sopro AEB 640 waterproofing and separating membrane
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro TFb high-strength tile grout



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aja resort, Garmisch-Partenkirchen



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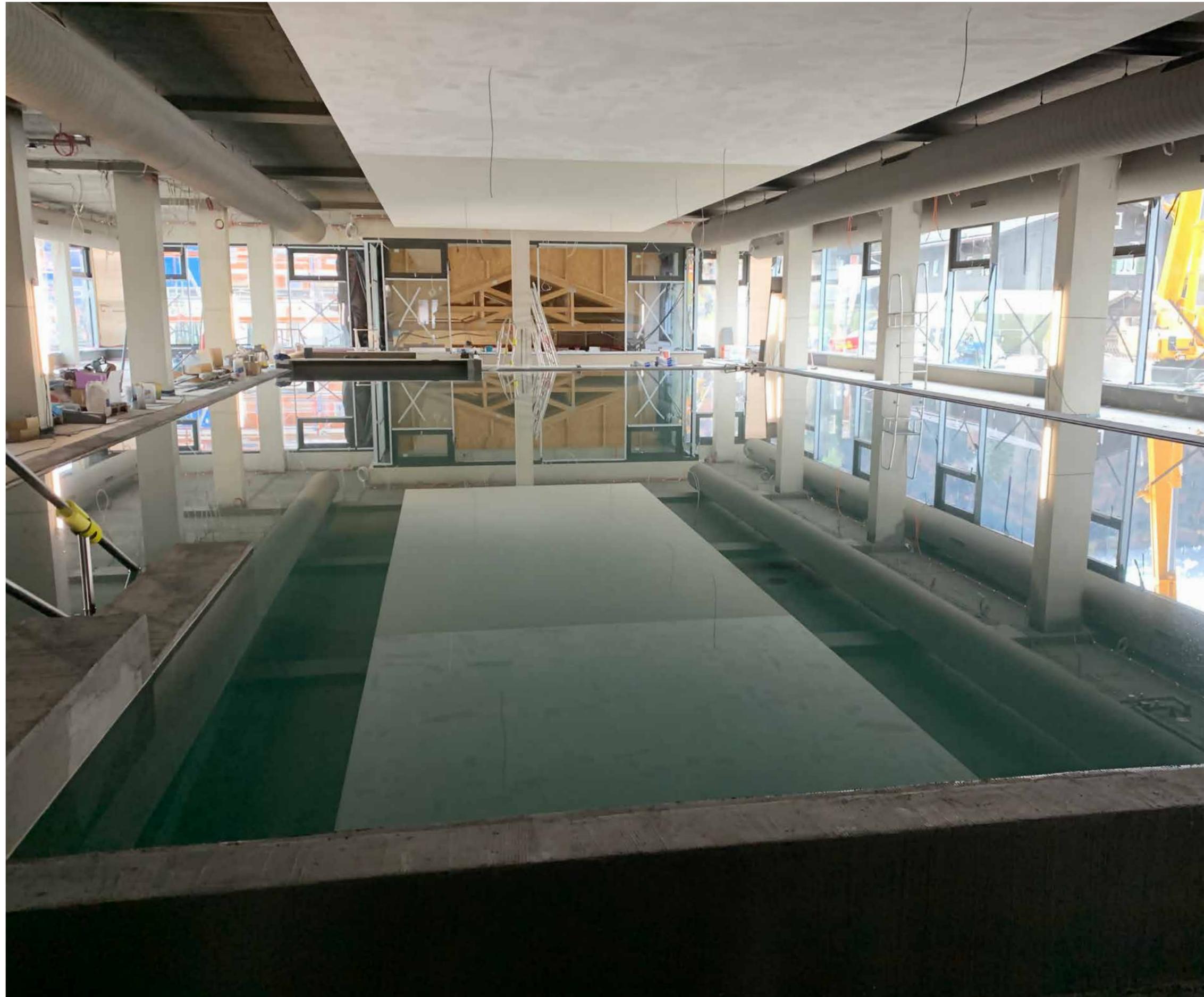




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aja hotel and wellness resort,
Garmisch-Partenkirchen

Wellness against Zugspitze mountain backdrop

The new aja Garmisch-Partenkirchen resort, which opened in 2021, caters for the high demand among those seeking a domestic wellness and adventure holiday. Apart from its unique location amid a stunning mountainscape, the highlights of the contemporary hotel destination include a 2,000 m² spa suite with indoor and outdoor pool, a sauna and fitness area, and a weather-independent adventure holiday concept. The use of Sopro system products ensured perfectly co-ordinated and tailored solutions for the extensive waterproofing works and tile-laying operations in the high-spec indoor and outdoor areas. Product selection was dictated not only by aesthetic considerations and technical factors, but also by sustainability criteria and the need to create healthy indoor environmental conditions.

For whatever reason visitors come to the new aja Garmisch-Partenkirchen resort – whether to swim, sweat or splash around – they will be regaled by a 2,000 m² waterworld with a year-round-heated indoor and outdoor pool, a spacious sundeck plus a choice of thermal baths and saunas, including a low-temperature textile sauna and 65°C panorama sauna overlooking the legendary Kandahar ski slope. The state-of-the-art cardio and weight-training equipment in the fitness room guarantees a fully satisfying workout. A generously sized beauty lounge offers professional body and beauty treatments while a family area in the spa gives the youngest guests ample opportunity to let off steam. Thanks to its wide variety of facilities, the newly opened aja Garmisch-Partenkirchen resort vouches for a family-friendly, weather-independent adventure holiday the whole year round.

Integral feel-good concept

The same convivial ambience permeates the cosy restaurant with its Alpine flair: here, the provision of a special family area ensures that all guests can enjoy their meals in a relaxing environment. The majority of products in the kitchen and cellar are locally sourced from regional agricultural producers. The feel-good atmosphere likewise pervades the reception, lobby, hotel bar and snug lounge areas, inviting guests to let go and give themselves over to an all-round relaxing experience. The design concept was developed by Hamburg-based client DSR Hotel Holding GmbH in collaboration with the Berlin architectural practice

SMAP Seeger Müller Architekten and general contractor Gustav Epple Bauunternehmung GmbH from Stuttgart. Even at the design stage, Sopro's Project Consulting team provided the architect and general contractor with valuable assistance in planning the extensive waterproofing and tile-laying operations – through training and technical support in the form of specification texts, detailed sketches and much more. This played a significant role in speeding up the works in the wellness suite, indoor and outdoor swimming pool areas, catering kitchen, foyer, stairwells and ancillary spaces, and thus in meeting the construction deadlines.

Waterworld built with system products

The contractor entrusted with performing the elaborate waterproofing and tiling works was Wallner Fliesen & Naturstein from Eging am See. Set up by Reinhold Wallner as a sole proprietorship under the name "Wallner Bau & Handel" in 2000, the company was rechristened in 2013 and has since focused on the installation of tile and natural stone coverings. Thanks to its long-standing relationship and fruitful collaboration with Sopro, the family business is fully conversant with Sopro's system products. For company owner Reinhold Wallner and his experienced team, it was clear from the start that Sopro products would be the number-one choice due to their outstanding performance and that the expert support of the construction chemicals manufacturer was needed in tackling this major contract.

In order to meet the inherently high technical and performance requirements placed on swimming pool schemes, the complex waterproofing concept and elaborate tiling works in and around the pools were performed by Wallner using reliable, time-tested Sopro system solutions. These covered everything from the application of swimming pool render to the walls and waterproofing with Sopro DSF 523/623 one-component sealing slurries to tile laying with Sopro's No.1 flexible adhesive and finishing the joints in the coverings with Sopro TF+ high-strength grout. Close attention was paid by the tiling specialists to the good-practice detailing of joints, penetrations, drains and the like. The catering kitchen and other areas necessitated a similar series of detailed steps with properly co-ordinated materials to install a perfect finish on the structural fabric. In the catering kitchen, for

example, the Sopro AEB 640 waterproofing and separating membrane provided the waterproof barrier while Sopro's No.1 was used to fix the tiles and Sopro TF+ to grout the joints.

The counselling and project supervision services offered during design continued across the entire on-site production phase with the advice and support provided by Sopro's experienced Project Consulting team.

BEECH Resort Fleesensee, Göhren-Lebbin

Project

- » Family holiday resort with fun/wellness baths
- » Refurbishment of toddlers' pools, poolside areas, changing rooms, group showers and sauna suite in swimming pool
- » Refurbishment of kitchens and bathrooms in holiday homes and apartments
- » Refurbishment of resort restaurants and public toilets



Signboard

Project management	Schumann Projects GmbH, Altenkirchen
Applicator	Fliesen Görzen GmbH, Lohmar MPVL GmbH, Bonn
Contract volume	Approx. 10,000 m ²
Completion	April 2021



Products

- Sopro DSF 623 flexible RS sealing slurry
- Sopro FDF 525/527 flexible sealing compound
- Sopro's No.1 rapid-set flexible tile adhesive (order no. 404)
- Sopro FF 450 flexible tile adhesive
- Sopro M&M 446 flexible marble and mosaic adhesive
- Sopro TF+ high-strength tile grout
- Saphir® 5 water-repellent tile grout
- Sopro DF10® flexible designer tile grout
- Sopro FL plus flexible tile grout



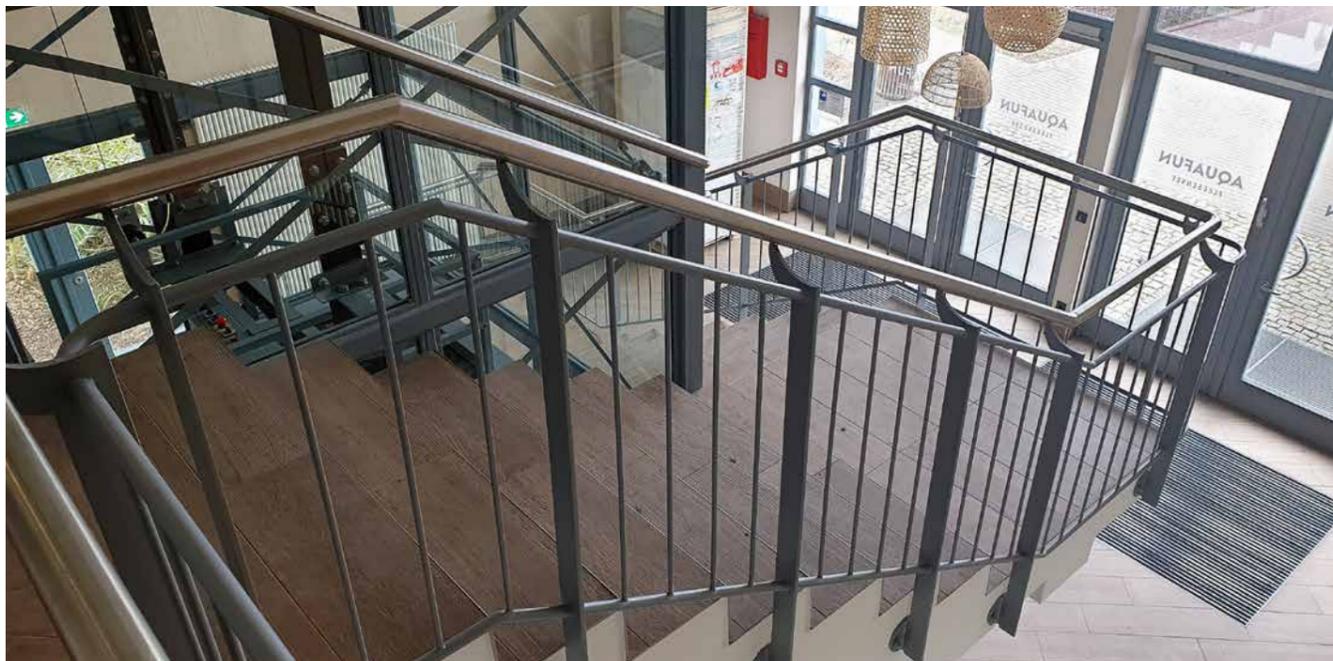


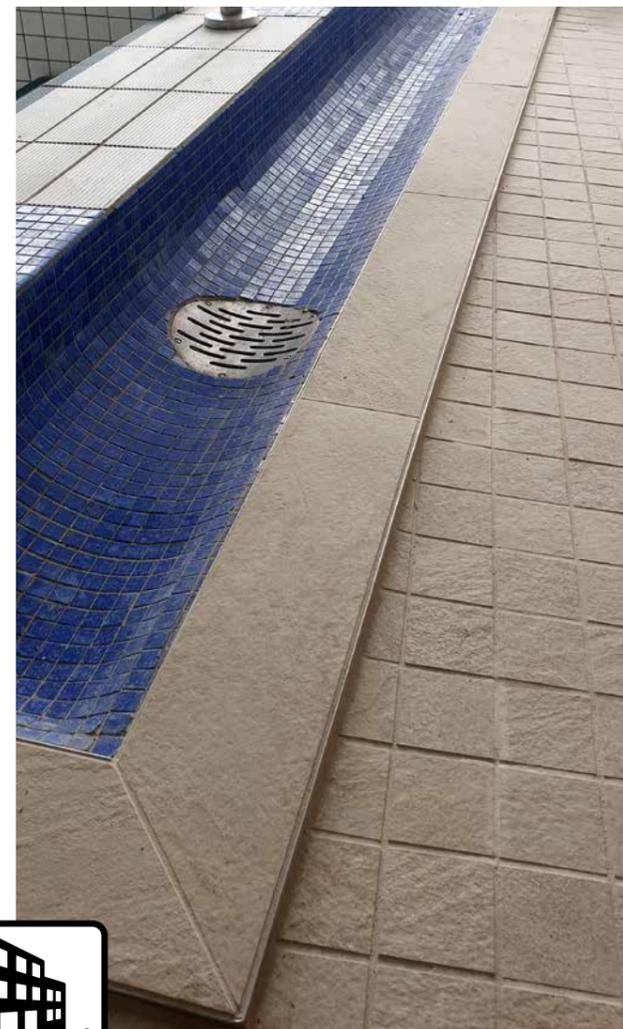
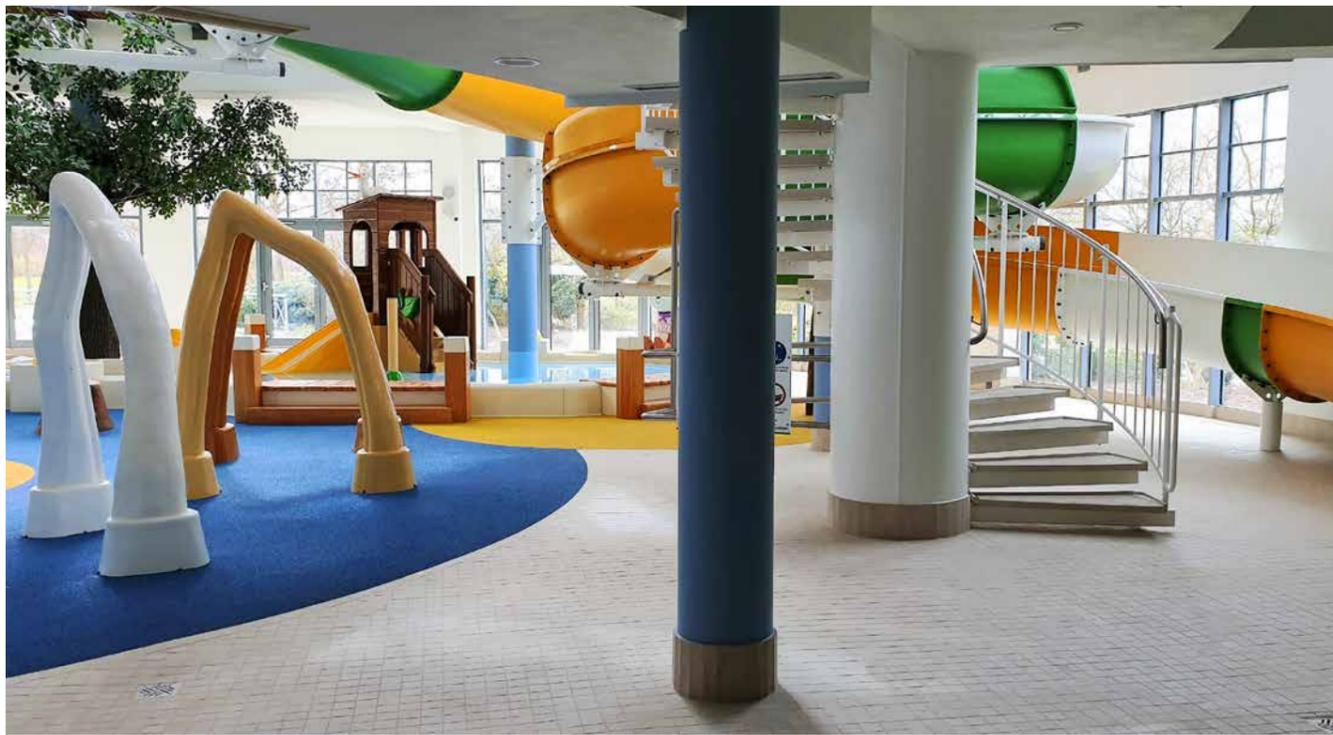
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BEECH Resort Fleesensee, Göhren-Lebbin

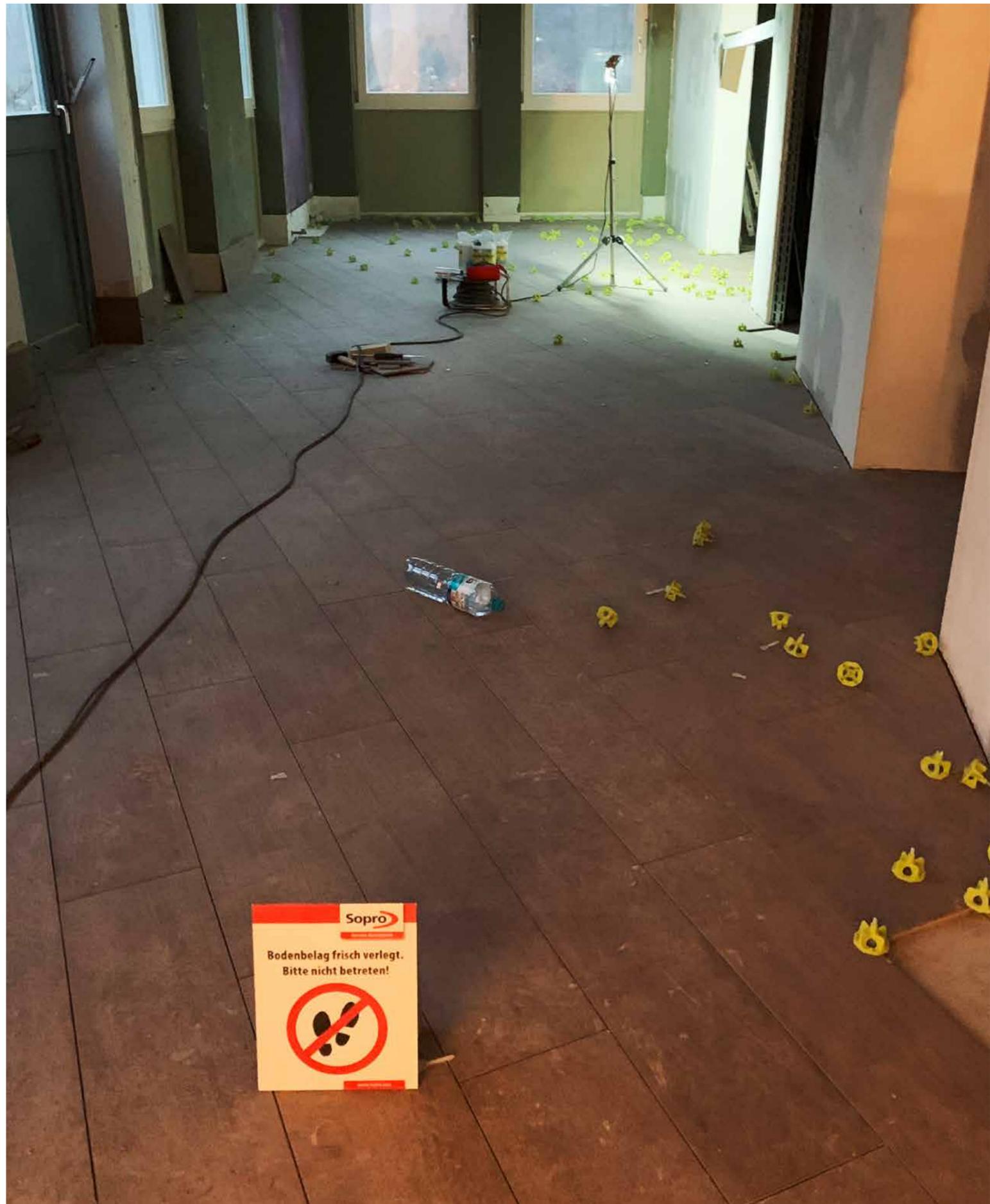






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BEECH Resort Fleesensee, Göhren-Lebbin



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Wellness at heart of Mecklenburg Lake Plateau

Sopro system solutions specified for extensive refurbishment contract

April 2021 saw the reopening under the name "BEECH Resort Fleesensee" of the former village hotel in Göhren-Lebbin in the Mecklenburg region of north-east Germany. This had been preceded by a full-scale refurbishment of the near-200 holiday homes as well as the fun and wellness baths. The works, covering an area of nearly 10,000 m², were performed using numerous products from Sopro Bauchemie's trade range.

Denoting a type of tree, the word "beech" is suggestive of a place where people can grow roots. At the same time, its homophone "beach" evokes a mood of relaxation and well-being. The new BEECH Resort Fleesensee in Göhren-Lebbin is designed to offer holidaymakers both of these experiences. "The holiday destination at the heart of the Mecklenburg Lake Plateau is ideal for families", writes the operator. With its contemporary design, multi-faceted culinary concept and full range of leisure activities, BEECH is a place to "grow roots", offering a feel-good atmosphere and a tailored holiday experience for both young and old.

Fully refurbished holiday resort

In all, the family holiday destination by the Fleesensee lake comprises 193 cosy apartments with balcony or patio spread across the five separate villages of the car-free resort. The recent makeover included an upgrade to their services installations and energy performance through the installation of modern heat emitters and solar collectors. Moreover, the holiday accommodation was restyled on the basis of a distinctive concept combining generous amounts of light-coloured wood with crisp forms and natural materials. The kitchens and bathrooms in the holiday apartments were also given a new look. In addition to the apartments, all other parts of the resort underwent refurbishment and modernization, most notably the Fleesensee spa complex. Christened "Beech Aquafun", the remodelled facility contains indoor and outdoor pools, an adventure water playground as well as saunas and a steam baths. Guests at the BEECH Resort Fleesensee can enjoy free use of these facilities.

Sopro system solutions used for waterproofing and tiling an area of 10,000 m²

Alongside wood, ceramic coverings feature prominently in the scheme – not only in the baths, wellness and restaurant areas, but also, of course, in the holiday home kitchens and bathrooms. Both the tile splashbacks in the apartment kitchens and the tile coverings in bathrooms and toilets were renewed. The sanitary facilities in the restaurants were likewise retiled. In the fun and wellness baths too, the pool decks, changing rooms, group showers and sauna suite were treated to a comprehensive refurbishment that encompassed renewal of the screeds, waterproof membranes and tile coverings. This necessitated the development of various technically challenging detail solutions, particularly in relation to waterproofing, e.g. for capillary seals at the junctions with an existing pool or connections to ventilation channels and door/window frames. Yet, here too, contractor Fliesen Görzen GmbH from Lohmar was able to draw on the assistance of Sopro's experienced experts in devising the best solution. System products from Sopro Bauchemie's trade range were specified for all waterproofing and natural stone/ceramic tiling works, including substrate preparation, priming and grouting, in the above-mentioned facilities.

me and all hotel, Hanover

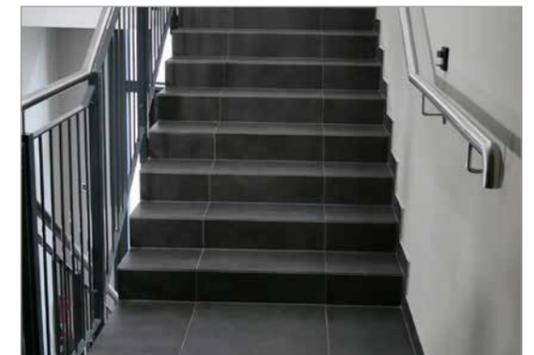
Project

- » Listed building converted into modern hotel
- » All levelling, waterproofing and tiling works
- » 165 quirkily designed, high-spec rooms plus exclusive bar area



Signboard

Design practice	Hanseatic Group, Hildesheim
Applicator	Stilles d.o.o., Sevnica, Slovenia
Client	Hanseatic Group, Hildesheim
Contract volume	165 rooms, bar and lobby
Completion	November 2021



Products

- Sopro OFS 543 contract floor-levelling compound
- Sopro FDF 525/527 flexible sealing compound
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro SC 808 flexible tile adhesive



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me and all hotel, Hanover

Young, hip and modern

The stylish hotel was provided with a reliable waterproofing and tiling solution through the use of Sopro system products.

After Düsseldorf and Mainz, Lindner Hotels AG has recently opened another establishment under the "me and all" lifestyle brand in Hanover. The converted, historic masonry building is now ready to offer – to use the stylish brand's own lingo – the "snuggest" beds and most offbeat rooms in the Lower Saxon capital.

The new me and all hotel stands on Aegidien-torplatz square (known to locals as the "Aegi") on the edge of the pedestrian precinct in Hanover city centre. It occupies a former bank building that has been listed as being of special architectural interest.

Retreat for unwinding

In keeping with the building's imposing historic masonry facade, the interior designers have lent the newcomer hotel an "urban industrial style" feel through the use of wood, concrete and generous splashes of vintage "shabby chic". The centrepiece of the new facility is the spacious lobby lounge bar that serves as a local meeting point, a co-working space and venue for regular events. For guests seeking physical exercise or relaxation, the "home from home" hotel offers an 80 m² fitness suite and 60 m² sauna with rest area. This reflects the operators' plans for the future of the 165-room me and all. Rather than being just a hotel, they see it as becoming "Hanover's living room", a place suffused with a sense of home for both guests and locals. This is underlined by the painting on the facade, the work of Hanover graffiti artist Patrik Wolters, celebrating the sights of the city.

Reliable solution to waterproofing requirements

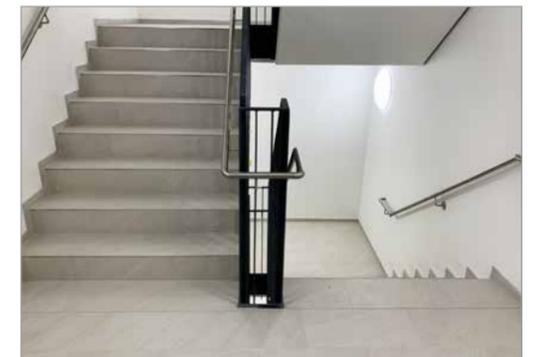
One striking feature of the modern rooms in Hanover's new me and all hotel is their "open-plan" layout. This includes a flowing, barrier-free transition between bathroom and living area. Although this promotes the underlying design concept and helps to create the desired visuals, it necessitates the utmost care in laying the ceramic coverings in the bathroom areas. Apart from ensuring the reliable, standards-compliant installation of a waterproof membrane on the substrates in the wet spaces, provision was also required to prevent water infiltration into the unprotected living areas. For all these works, tiling contractor Stilles d.o.o from Sevnica in Slovenia opted for the use of time-tested products from Sopro Bauchemie's trade range. The first step involved treating the surfaces in all rooms with Sopro OFS 543 contract floor-levelling compound to create even substrates for the subsequent flooring operations. The standards-compliant membranes in the wet spaces were installed using the one-component, dispersion-based Sopro FDF 525/527 flexible sealing compound for the walls and the cementitious Sopro DSF 523 one-component flexible sealing slurry for the floors.

The ceramic coverings in both the hotel rooms and the bar/lobby area were laid with Sopro SC 808, a cementitious flexible tile adhesive meeting C2 TE requirements to DIN EN 12004. A threshold was incorporated at the transition from shower area to bathroom in order to prevent water infiltration across the surface. Prior to tile laying, the tiling edge trim at the junction with the living area was watertightly bonded to the membrane with Sopro RMK 818 Racofix® universal adhesive to eliminate any risk of capillary water migration below the covering.

Premier Inn/Hampton by Hilton double hotel, Stuttgart

Project

- » 12-storey, 300-room, new-build hotel complex with triangular footprint
- » Use of Sopro system solutions for all waterproofing and tiling works
- » Use of Sopro bath/shower sealing system to connect waterproof membrane to shower trays



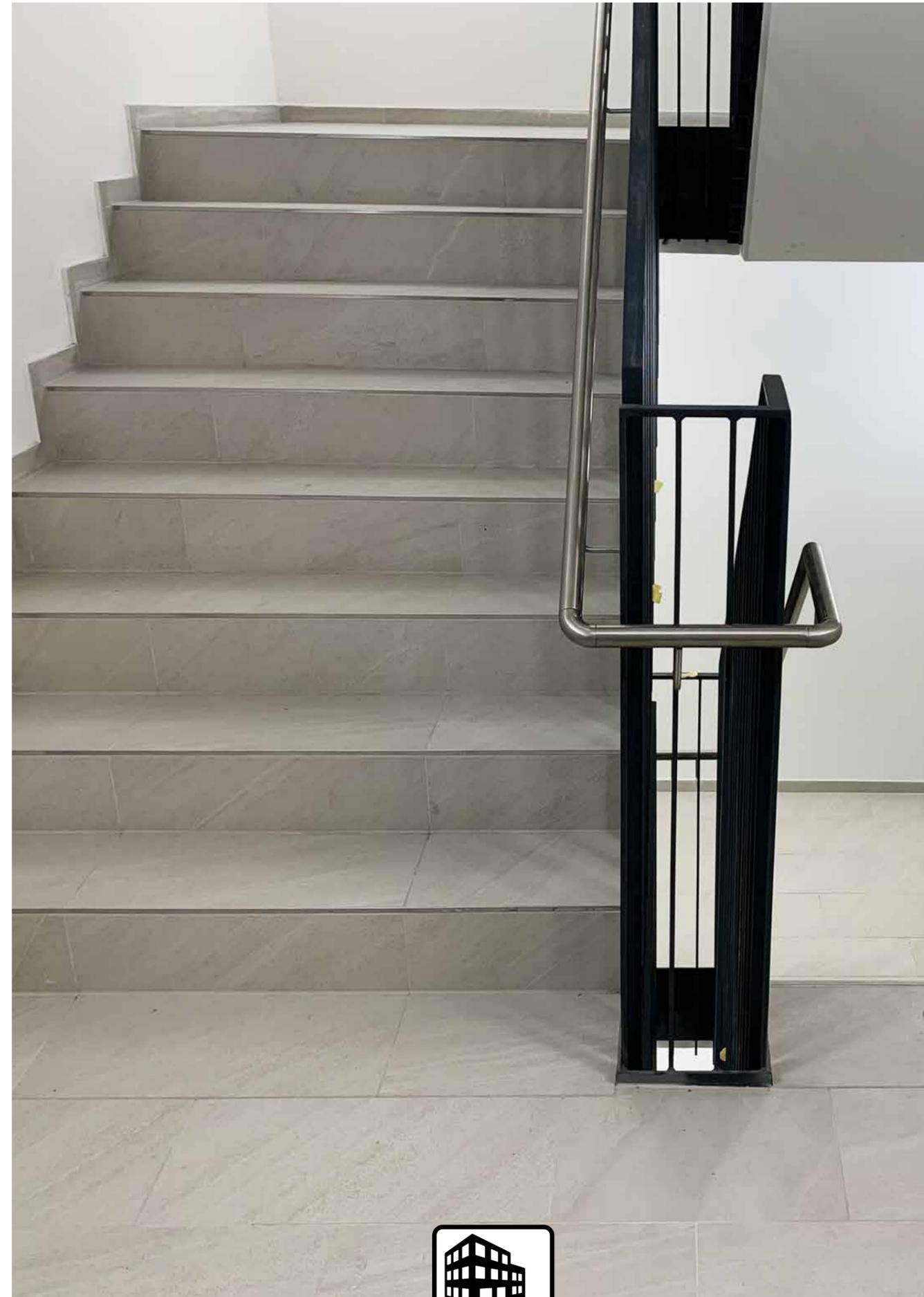
Signboard

Applicator	Von Au-Gehung Fliesen GmbH, Nürtingen
Client	Objektgesellschaft Hotelbauprojekt Stuttgart, Baltringen
General contractor	Peter Groß Hoch- und Tiefbau GmbH & Co.KG, Stuttgart
Contract volume	300 rooms, stairwells, foyers, sanitary facilities
Completion	August 2021



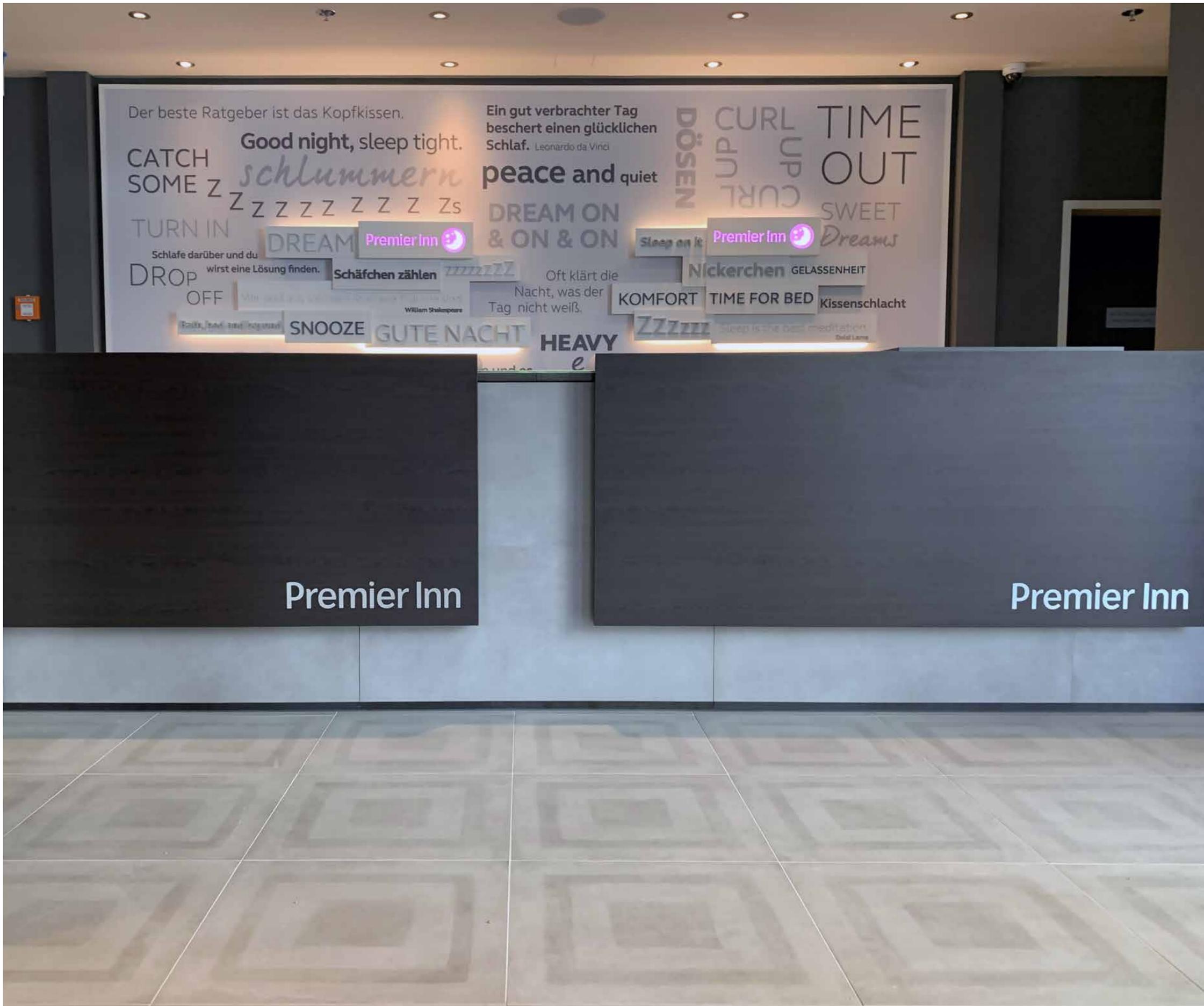
Products

- Sopro GD 749 primer
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro FDF 525 flexible sealing compound
- Sopro bath/shower sealing system
- Sopro FF 450 flexible tile adhesive
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro DF 10® flexible designer tile grout
- Sopro FL plus flexible tile grout



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Premier Inn/Hampton by Hilton double hotel, Stuttgart



Premier Inn

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Premier Inn/Hampton by Hilton double hotel, Stuttgart



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Premier Inn and Hampton
by Hilton double hotel, Stuttgart

Two hotels in one building

The Sopro bath/shower sealing system delivered a reliable solution for the incorporation of shower trays in the guest bathrooms of the two hotels.

Summer 2021 saw the inauguration of the Premier Inn and Hampton by Hilton double hotel, with a total of over 300 rooms, in the centre of Stuttgart close to the city's main station. All waterproofing and tiling works in the two establishments were carried out using Sopro system solutions. The Sopro bath/shower sealing system delivered a sound, standards-compliant solution for the watertight integration of the shower trays in the 300 guest bathrooms.

On a triangular, nearly 1,500 m² site at the junction between Wolframstraße and Nordbahnhof Straße in Stuttgart's new Europaviertel district – currently one Germany's most significant inner-city developments – stands a new building housing two hotels: the 144-room Premier Inn and the 157-room Hampton by Hilton. While the Premier Inn, with only a breakfast room and a bar also open to external guests, focuses on providing overnight accommodation, the Hampton by Hilton boasts a restaurant and a bistro together with conference facilities and a fitness suite.

The classically austere building, with a triangular footprint and full-height, internal atrium, is linked to the surrounding district at various levels. The hotel building occupies a prime location between a new bridge for the city's "Stadtbahn" light rail system and the eastern facade of the 43,000 m² Milaneo shopping centre. Quite apart from the excellent public transport links, Stuttgart's city centre and tourist sights are also within easy walking distance. The prestigious entrance to the two hotels is accentuated by a series of arcades flanking the rail platform at ground-floor and first-floor level which also highlight the easy access via road and rail.

Use of Sopro system solutions for waterproofing and tiling

In all, the 12-storey hotel building, with two below-ground parking decks and with ground and first floor serving as public and back-of-house areas, offers over 300 modern rooms. All of these include their own bathrooms, some of which are barrier-free. The contractor entrusted with the entire waterproofing and tiling package

for the two hotels was Von Au-Gehring Fliesen GmbH from Nürtingen, an SME with a long tradition of top-quality workmanship. The two main challenges posed by this project were the contract size and narrow timeframe. Installation of the tile finishes was preceded by extensive waterproofing works in the 300 guest bathrooms and the sanitary facilities, stairwells and foyers of the two hotels in order to protect the substrates in these heavy-duty spaces from moisture and water infiltration. In close consultation with the designer, general contractor and client, the tiling specialist opted for the use of Sopro Bauchemie's tried-and-tested systems and products.

Standards-compliant all-round solution for trouble-free integration of shower trays

In line with the new German standard DIN 18534, the shower trays in the 300 guest bathrooms had to be properly integrated in the mandatory waterproof membrane for the wet spaces. To meet this requirement, the tiling contractor adopted a relatively new and innovative solution: the Sopro bath/shower sealing system. The standards-compliant integral solution reliably accommodated the varying situations and configurations in the guest bathrooms of the two hotels. Using only a few fittings, the versatile system can cater for virtually all installation options encountered on site – whether bathtubs, walk-in showers or raised shower trays. The key benefit of the reliable connection between membrane and bathtub or shower tray is that, by preventing water infiltration behind or below these fittings, it eliminates the need for a waterproof membrane in these areas. General contractor Peter Groß Hoch- und Tiefbau GmbH nonetheless decided on maximum safety in the bathrooms on this hotel scheme and installed an additional membrane below the shower trays.

Both the general and tiling contractors attached particular importance to the use of system solutions. Accordingly, for this project too, Sopro products were specified "from bottom to top", i.e. for all operations from priming and waterproofing to tile fixing and grouting. Throughout the project period, in the design and production phases, they were able to draw on the expert advice and support of Sopro's Project Consulting and regional management teams.

Upstalsboom Godewindpark, Travemünde

Project

- » Holiday home and apartment site
- » Restaurant and lounge
- » Spa and wellness suite
- » Specially detailed waterproofing solutions for sauna areas
- » Central location in coastal resort of Travemünde
- » Use of Sopro system solutions for waterproofing and tiling works

Signboard

Design practice	Architektenbüro Timm + Goullon, Hamburg
Applicator	Uplegger GmbH & Co. KG, Neubukow
General contractor	Otto Wulff GmbH, Hamburg
Contract volume	Approx. 50 apartments and wellness suite
Completion	October 2020



Products

- Sopro GD 749 primer
- Sopro RAM 3 454 renovation and levelling mortar
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro AEB 640 waterproofing and separating membrane
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro TF+ high-strength tile grout
- Sopro PU-FD 570/571 surface sealant for walls/floors



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Upstalsboom Godewindpark, Travemünde



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Upstalsboom Godewindpark, Travemünde



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Upstalsboom Godewindpark, Travemünde



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Upstalsboom Godewindpark, Travemünde

Prime holiday attraction with maritime flair

Sopro system solutions specified for all waterproofing and tiling works

With the Upstalsboom Godewindpark, the Baltic Sea spa resort of Travemünde now boasts a new rental holiday home attraction. The modern apartment site close to the beach offers the ideal environment for a relaxing Baltic Sea holiday. Numerous Sopro system products were used to lay the high-grade ceramic coverings in the 53 exclusive holiday apartments and the site's wellness suite.

Travemünde, a district of the Hanseatic city of Lübeck, lies at the mouth of the River Trave on the Baltic Sea. The surrounding area is dominated by ship captain's houses and luxury villas in the style of the local spa architecture. A lengthy beach promenade with numerous restaurants, cosy cafés and an abundance of retail outlets invites visitors to shop, stroll and delight in the setting. On account of its "Scandinavian Quay", from which large ferries cross the Baltic to Sweden or Finland, Travemünde ranks among Europe's biggest ferry ports.

Modern apartment site at a top location

With the Upstalsboom Godewindpark, Travemünde has increased its pulling power for holidaymakers. The name "Upstalsboom" is derived from Old Frisian, where it designates a tree ("Boom") to which horses were tethered ("upstallt"), for example when the local chiefs met to consult or draw new strength from the company of kindred spirits. Designed by Hamburg architectural practice Timm + Goullon, the new apartment scheme – from which future holidaymakers will be able to draw new strength – occupies the former site of a car showroom in close proximity to the beach and promenade, and immediately adjoining Travemünde's Godewindpark. The main building, a semi-circular composition with a gracefully curvilinear facade, houses 53 1- to 3-room holiday apartments with a contemporary fit-out and varying in size between 40 and 83 m². These offer ideal conditions for a relaxing holiday by the Baltic Sea. Guests are also regaled by a large wellness suite on the ground floor, complete with a Finnish sauna, organic sauna, steam baths, foot baths, feature showers, ice fountains and rest areas. Other highlights

include a chimney lounge and a spectacular 187 m² sundeck on the partially planted roof terrace. With references to its maritime setting and coastal landscape, the building's interior design concept uses combinations of materials and light to engage with the surroundings. At the same time, the harmonious colour scheme featuring warm natural hues generates an intense feeling of cosiness and well-being.

Sopro system products for reliable performance

The premium apartments, all with recessed balconies, boast high-spec interior fittings and furnishings, such as floor heating and solar-control glazing. The numerous tile coverings represent a further key design element – not only in the apartment bathrooms, but also in the lounge, stairwells and entire wellness suite of the holiday complex.

The expert workmanship required for the extensive tile-laying operations was supplied by Uplegger GmbH & Co. KG, a contractor based in Neubukow in the German Federal State of Mecklenburg-Vorpommern. Established in 1990, the tiling specialist now employs a 24-strong team of skilled staff that enables it to offer a full range of top-quality services nationwide on both private and commercial projects. For all substrate preparation, waterproofing and tiling works, the team opted for the reliable performance offered by Sopro's system solutions and associated products. Sopro RAM3 454 renovation and levelling mortar, for example, was specified wherever it was necessary to even out wall substrates or create falls in wet spaces. One- or two-component membranes, such as the Sopro DSF 523 or Sopro TDS 823 sealing slurries, were selected in line with the requirements for standards-compliant waterproofing in both the bathrooms and wellness suite. A sheet product, Sopro AEB 640 waterproofing and separating membrane, was also installed in some places. This is particularly suitable for fast-track waterproofing on tightly scheduled construction schemes. The large-format fully vitrified stoneware units specified at some locations were laid with the tried-and-tested Sopro's No.1 flexible tile adhesive while the joints in the coverings were finished with Sopro TF+, a tile grout for heavy-duty applications.

NEO, Baumkirchen- Mitte district, Munich

Project

- » Office and residential building with hotel
- » Urban quarter for “living, working and recreation”
- » 143-room Hampton by Hilton hotel
- » 60 m tall hotel and office tower
- » Use of Sopro system solutions for waterproofing and tiling works to catering kitchen, lobby, hotel bathrooms and all toilets



Signboard

Design practice	UNStudio, Amsterdam, Netherlands
Applicator	Fliesen Abel GmbH, Otzing
Client	CA Immo Deutschland GmbH, Munich
Contract volume	Approx. 2,500 m ² of tiling
Completion	October 2020



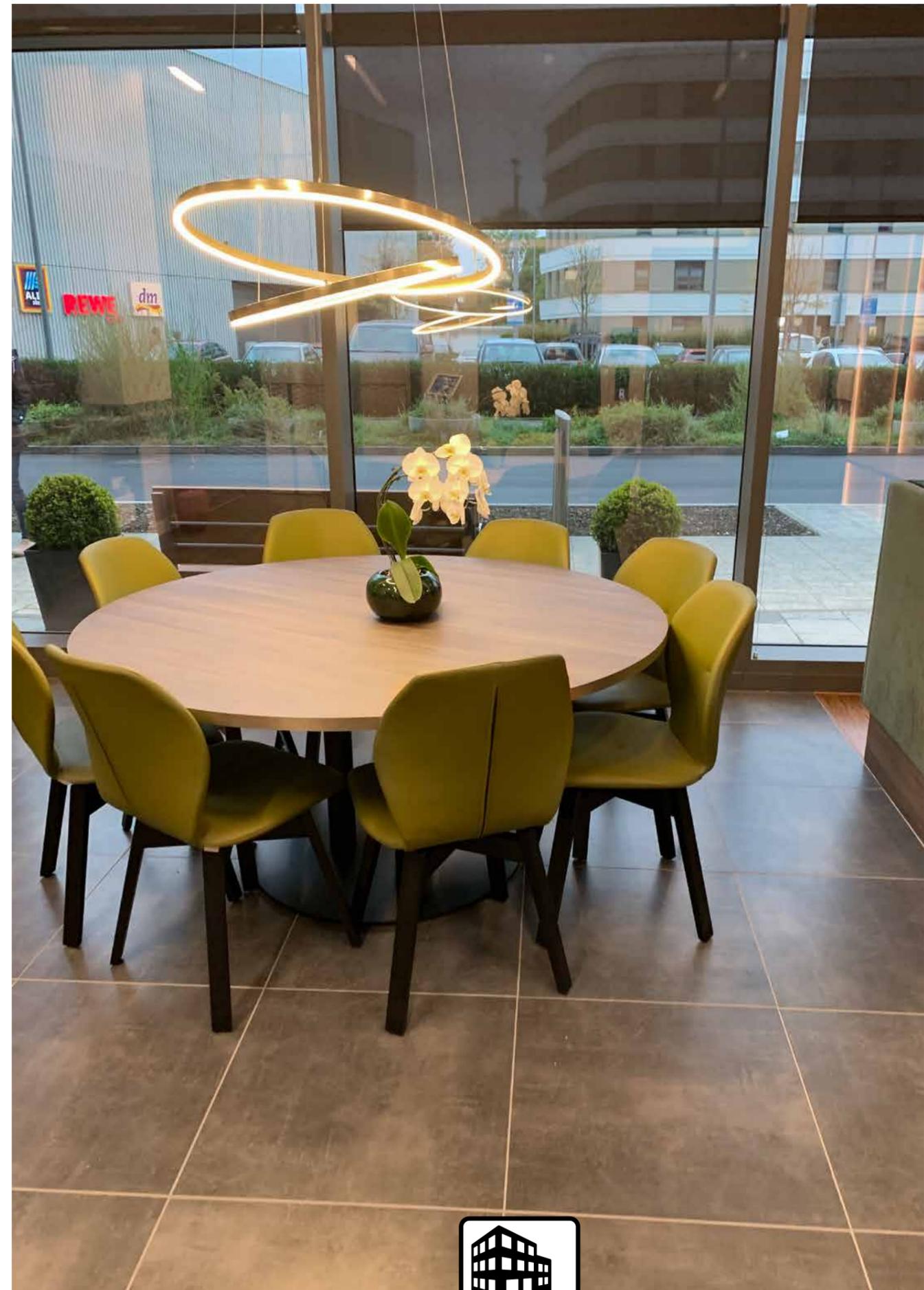
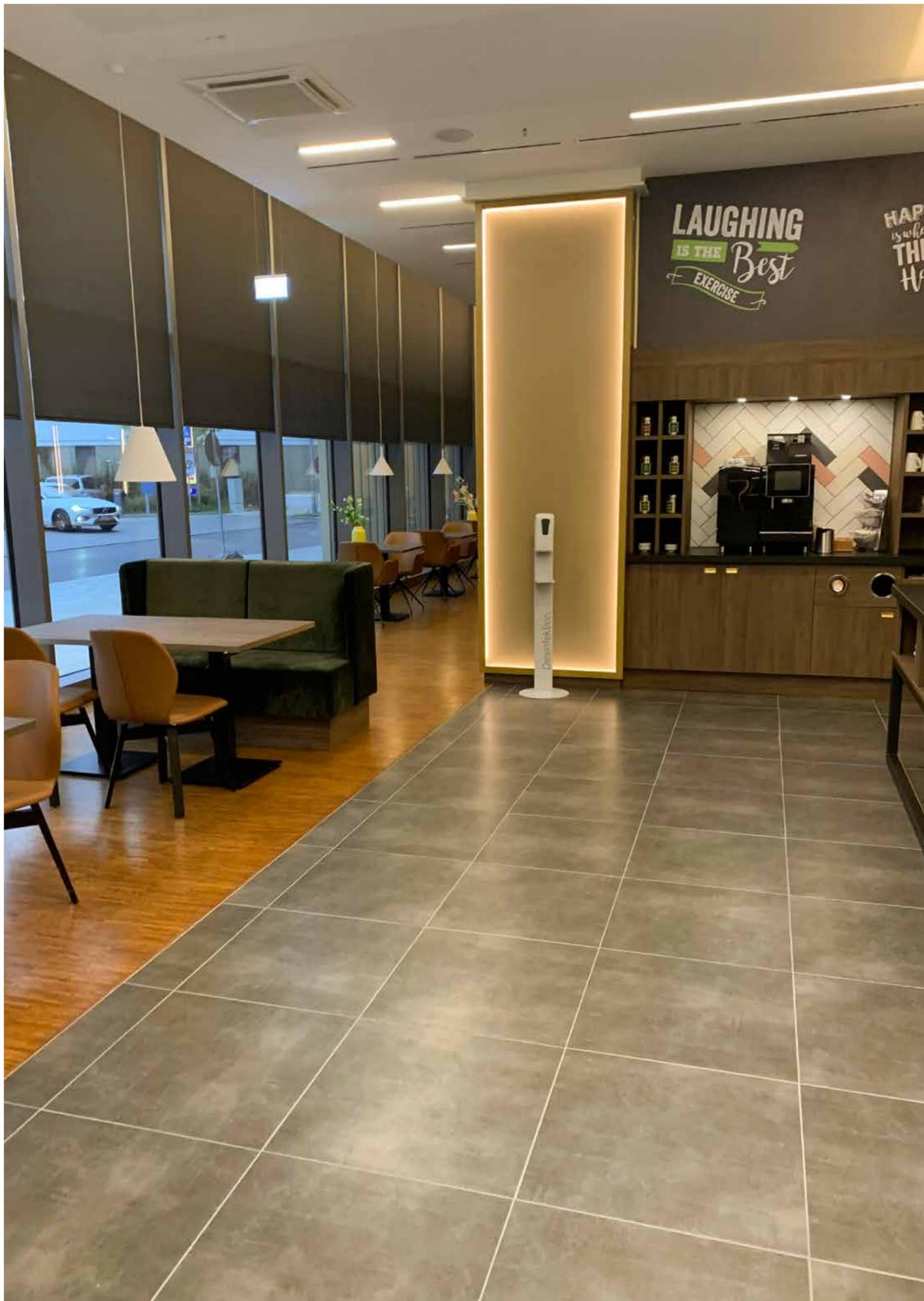
Products

- Sopro GD 749 primer
- Sopro RAM 3 454 renovation and levelling mortar
- Sopro AEB 640 waterproofing and separating membrane
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro PU-FD 570/571 surface sealant for walls/floors
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro FEP epoxy tile grout
- Sopro TF+ high-strength tile grout
- Sopro PUK 503 PU adhesive



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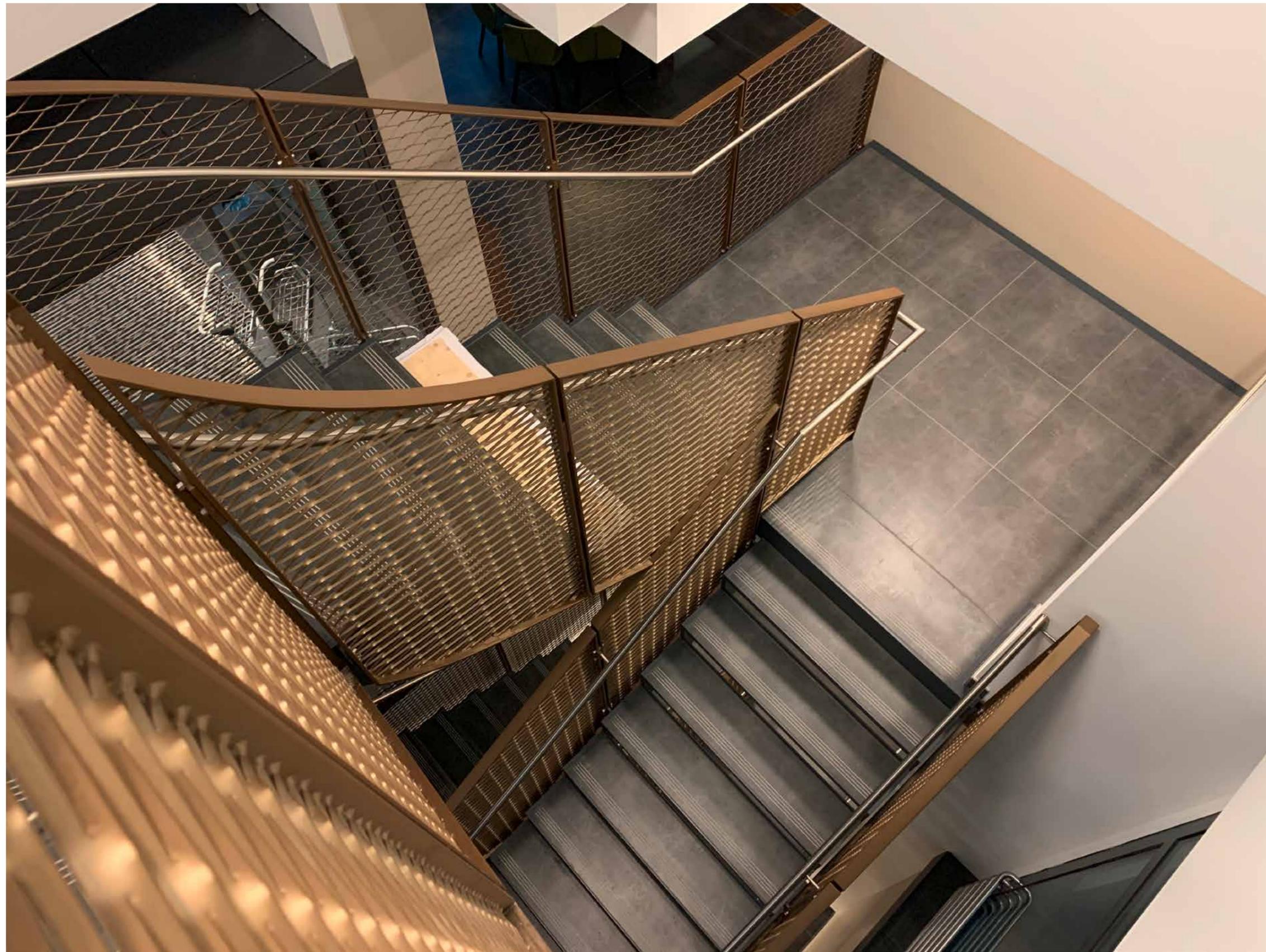
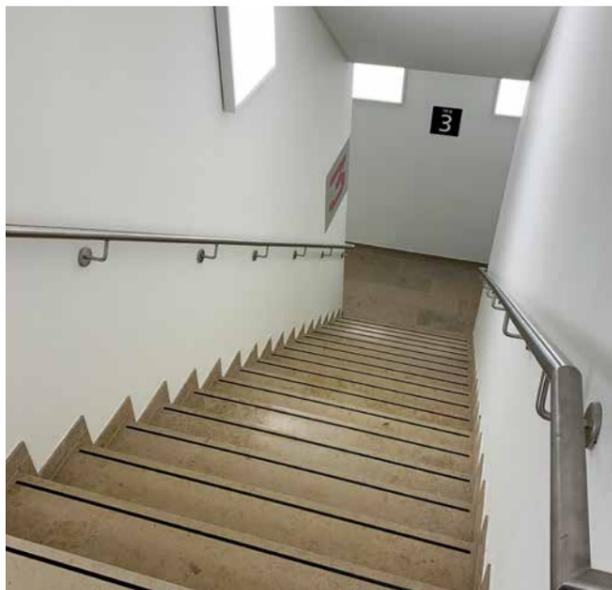
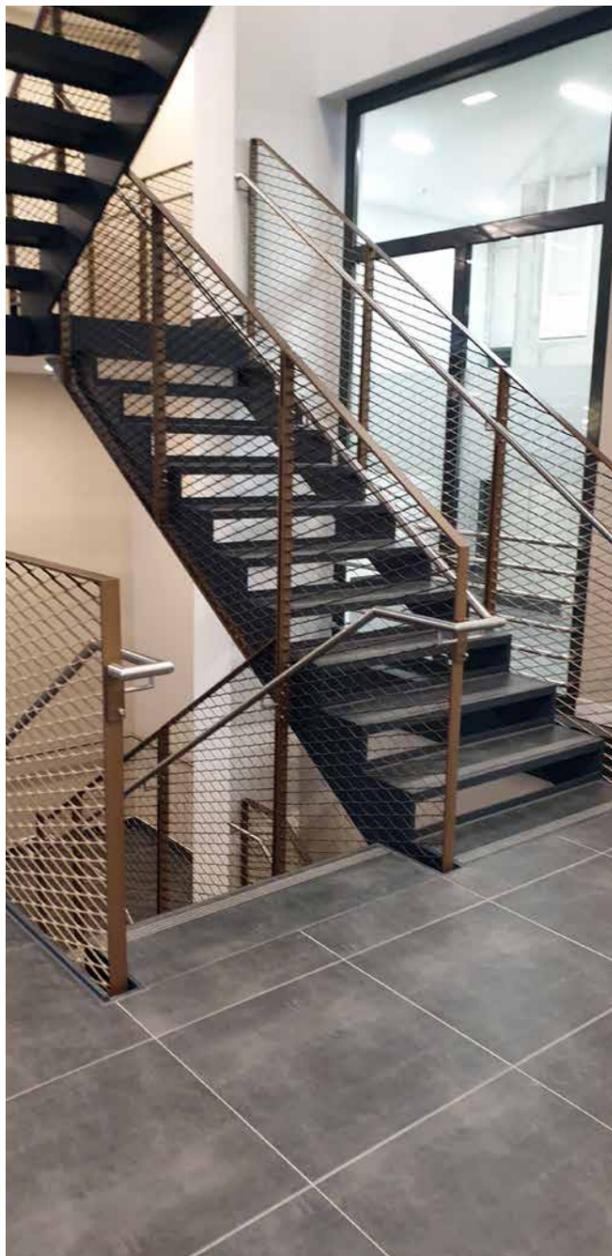
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NEO, Baumkirchen-Mitte district, Munich

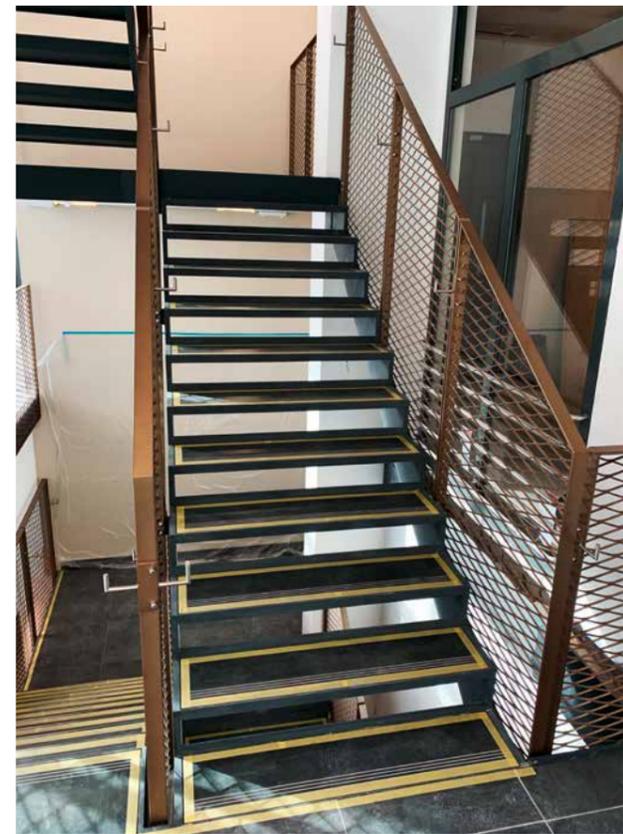
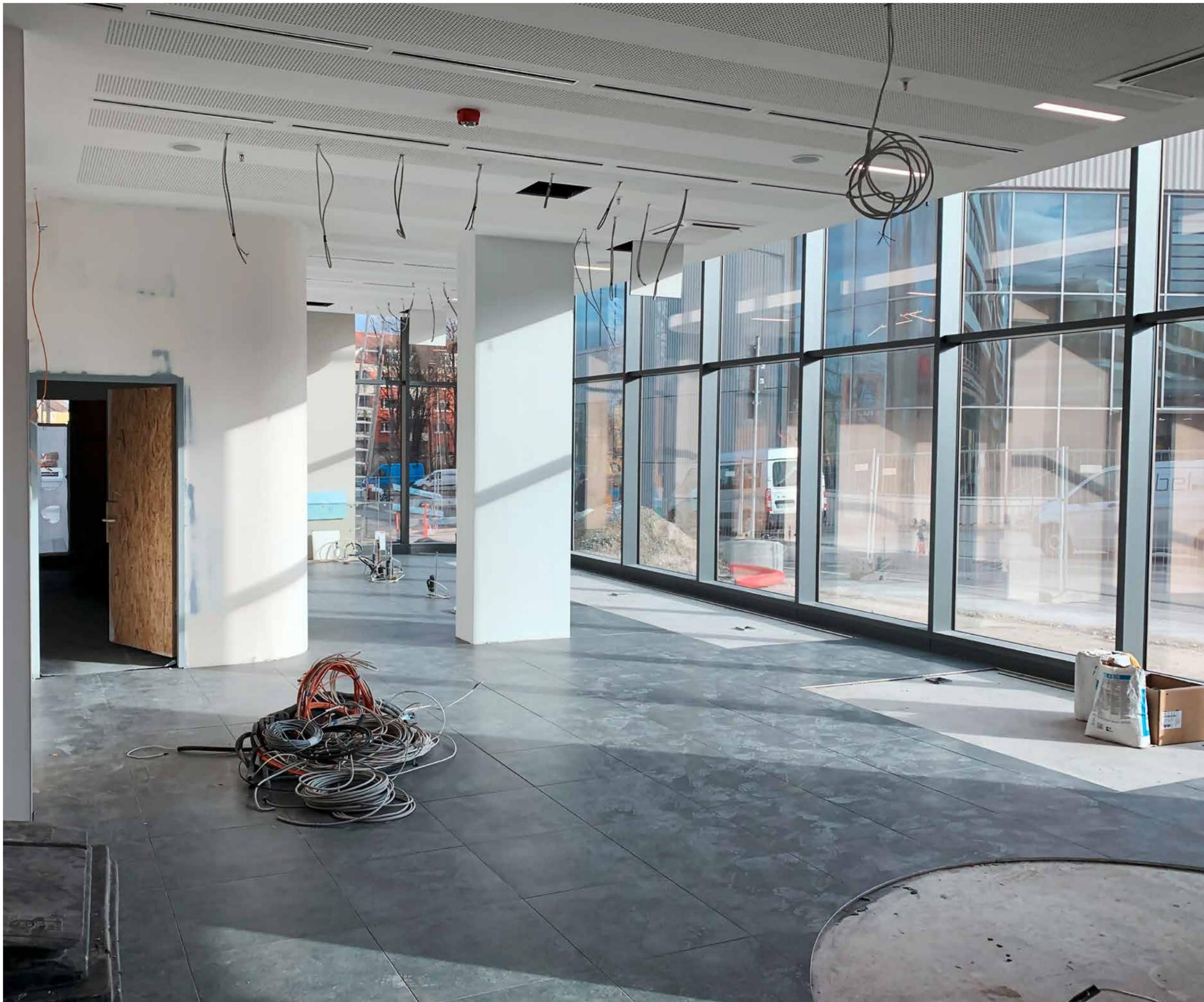


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NEO, Baumkirchen-Mitte district, Munich

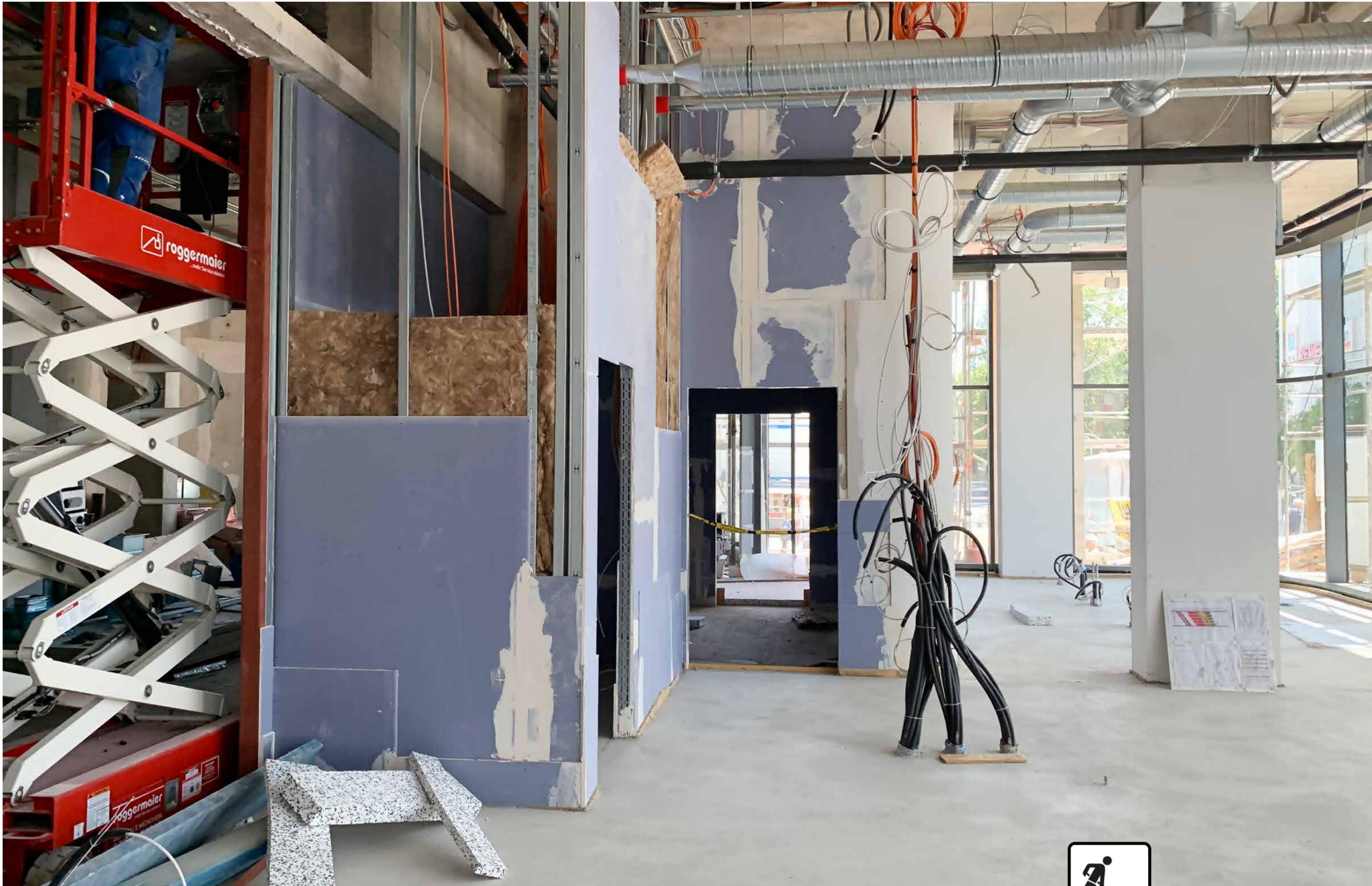


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NEO, Baumkirchen-Mitte district, Munich



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NEO, Baumkirchen-Mitte district, Munich



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A refreshing environment for living and working

Reliable and sustainable solutions for major tiling contract

With the NEO office, residential and hotel complex, Munich's new Baumkirchen-Mitte district now boasts a distinctive building that caters for a progressive combination of living and working. The scheme comprises a curvilinear, six-storey podium housing 50 high-spec rental apartments and an approx. 60 m tall hotel and office tower. Its architectural language directly engages with the surrounding quarter in which greenery and naturalness play a key role. One consistent feature of the NEO scheme is its high-quality fit-out. Sopro system solutions and associated products made a major contribution in implementing the exceptional architectural concept and meeting the sustainability criteria, specifically for the approx. 4,500 m² of tile coverings.

Light-coloured volumes and rounded forms figure prominently in the new NEO development in Munich's up-and-coming Baumkirchen-Mitte district. Shaped by an unusual, forward-looking architectural concept, the scheme unites 50 intelligent apartment types covering just under 5,000 m², a 143-room Hampton by Hilton-branded hotel, 8,500 m² of adaptable, state-of-the-art office space and three shops with a total area of 444 m². The new, high-spec complex lies close to the Berg am Laim "S-Bahn" light rail station and thus benefits from excellent public transport links to Munich city centre. While various shopping facilities and service offerings are available practically on the doorstep, extensive nearby green spaces and an approx. 60,000 m² landscaped park offer ample opportunity to unwind.

New style, solid values – human-oriented architecture

The NEO's innovative design concept was developed by Amsterdam-based practice UNStudio, a representative of the architectural avant-garde. The visual impact of the composition is dictated by its organic, curvilinear massing, which translates into unusual, though no less efficient floorplans. The entire building is suffused with a bright and airy ambience. The curvilinear, six-storey podium with planted roof terrace is occupied by apartments in various sizes and layouts. The generous design concept and barrier-free access throughout the common

spaces are aimed at boosting the appeal of the apartments for singles, couples and families of all age groups. One particular highlight is the shared roof terrace with its play areas and individually plantable flower beds. Each residential unit is provided with its own balcony or patio along with a high-spec interior that, for example, includes tile floors in the living rooms, real-wood parquet in the bedrooms, floor heating and bathroom with bathtub or shower. Each apartment is also assigned its own basement compartment and at least one basement parking space. All floors from basement to penthouse level are easily accessible by lift.

In the 16-storey hotel and office tower, containing nearly 20,000 m² of floorspace, the building's identity is shaped by neutral spaces such as foyers, lobbies and meeting areas. The first six levels house a 143-room, Hampton by Hilton-branded hotel. The NEO's uppermost storeys offer some 8,500 m² of rental accommodation for easily adaptable, ultramodern office units geared to contemporary work practices.

Tile coverings over total area of 4,500 m²

A premium-quality fit-out to all interior spaces was a top priority on the NEO scheme. Tile coverings were specified for a wide variety of areas – including damp and wet spaces, foyers, stairwells, common facilities and private living areas – in both podium and high-rise components. The hotel likewise features diverse tile finishes, specifically in the bathroom, lobby, kitchen and restaurant areas. The contract for the 4,500 m² of tiling was awarded to Abel Natursteine & Fliesen from Otzing, whose references include such high-profile projects as the Schloss Elmau luxury spa, the Palais an der Oper in Munich, die Pasing Arcaden shopping centre, Münchner Bäder pool facilities and the new ADAC (German Automobile Club) headquarters. For the NEO office, residential and hotel complex, as elsewhere, the experienced contractor opted for the use of Sopro system solutions and associated products for the tiling package, including substrate preparation, waterproofing and grouting.

One particular technical challenge was posed by the tiling specified for a steel stairway. As steel constitutes a critical substrate, above all due to its specific deformation behaviour, the first step entailed installing the resin-bonded Sopro

FDP 558 tile insulation board as a separating layer to accommodate any occurring deformation. The tiles were then bonded with Sopro PUK 503, a two-component, polyurethane reaction resin adhesive that is particularly suitable for meeting enhanced requirements in terms of tensile and shear adhesion strengths as well as elasticity.

Compliance with high sustainability demands

The sustainability of the building complex was certified on the basis of the American LEED (Leadership in Energy and Environmental Design) system. This necessitated the selection of products certified under DGNB (German Sustainable Building Council) standards and meeting the top quality level 4, Line 8 (based on DGNB criterion "ENV 1.2 Local Environmental Impact") and with a EC1^{PLUS} (very-low-emission-plus) rating under the EMICODE system of the GEV (German Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials).

During the design phase and throughout the on-site operations, the designers and contractor were able to draw on the advice and support of Sopro's Project Consulting and regional management teams.

Swimming pools

Berg mineral baths, Stuttgart

Project

- » Refurbishment and extension of historic baths facilities
- » Pools filled with untreated natural mineral water
- » Use of highly resistant, reaction resin-based Sopro waterproof membranes, tile adhesives and tile grouts in pools and poolside areas
- » Use of Sopro system solutions for waterproofing and tiling works in baths interior



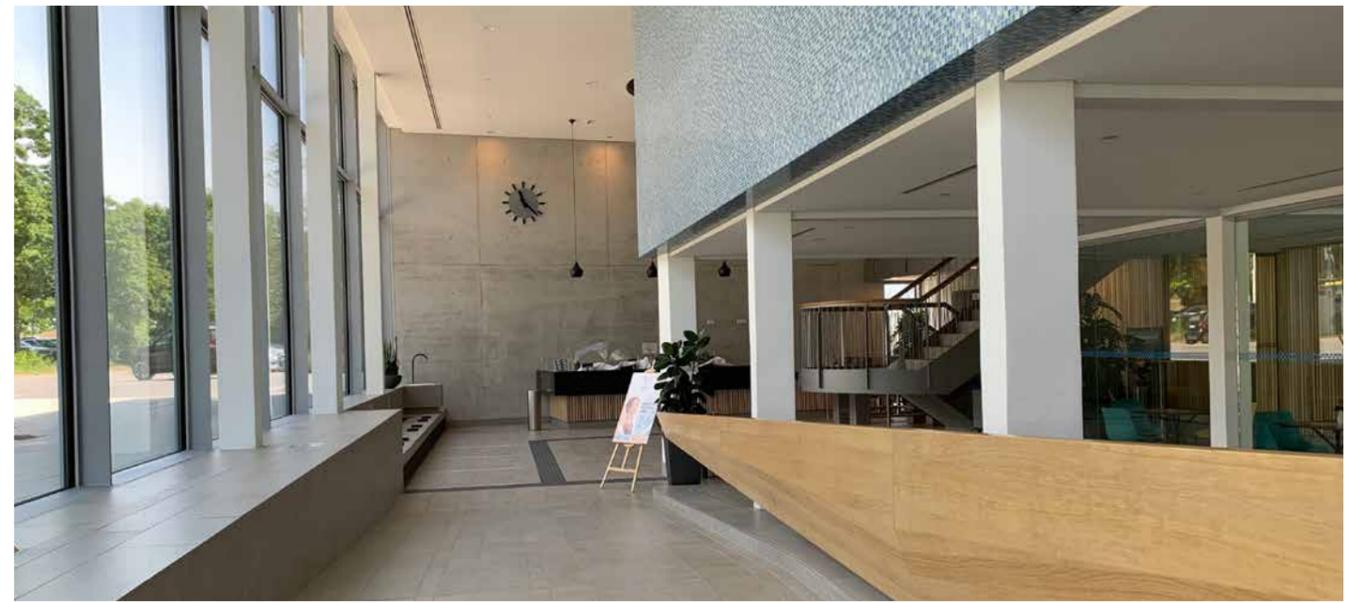
Signboard

Design practice	4a Architekten, Stuttgart
Applicator	Fliesen Röhlich, Wendelstein
Client	Stuttgart Bäderbetriebe (swimming pool operator), Stuttgart
Contract volume	Approx. 3,500 m ²
Completion	May 2021



Products

- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro VF 413 VarioFlex® tile adhesive
- Sopro FF 450 flexible tile adhesive
- Sopro DBE 500 epoxy tile adhesive
- Sopro PU-FD 570/571 surface sealant for walls/floors
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro BH 869 construction resin
- Sopro EPG 522 epoxy primer
- Sopro SBP 474 swimming pool render
- Sopro FEP plus epoxy tile grout
- Sopro TF+ high-strength tile grout



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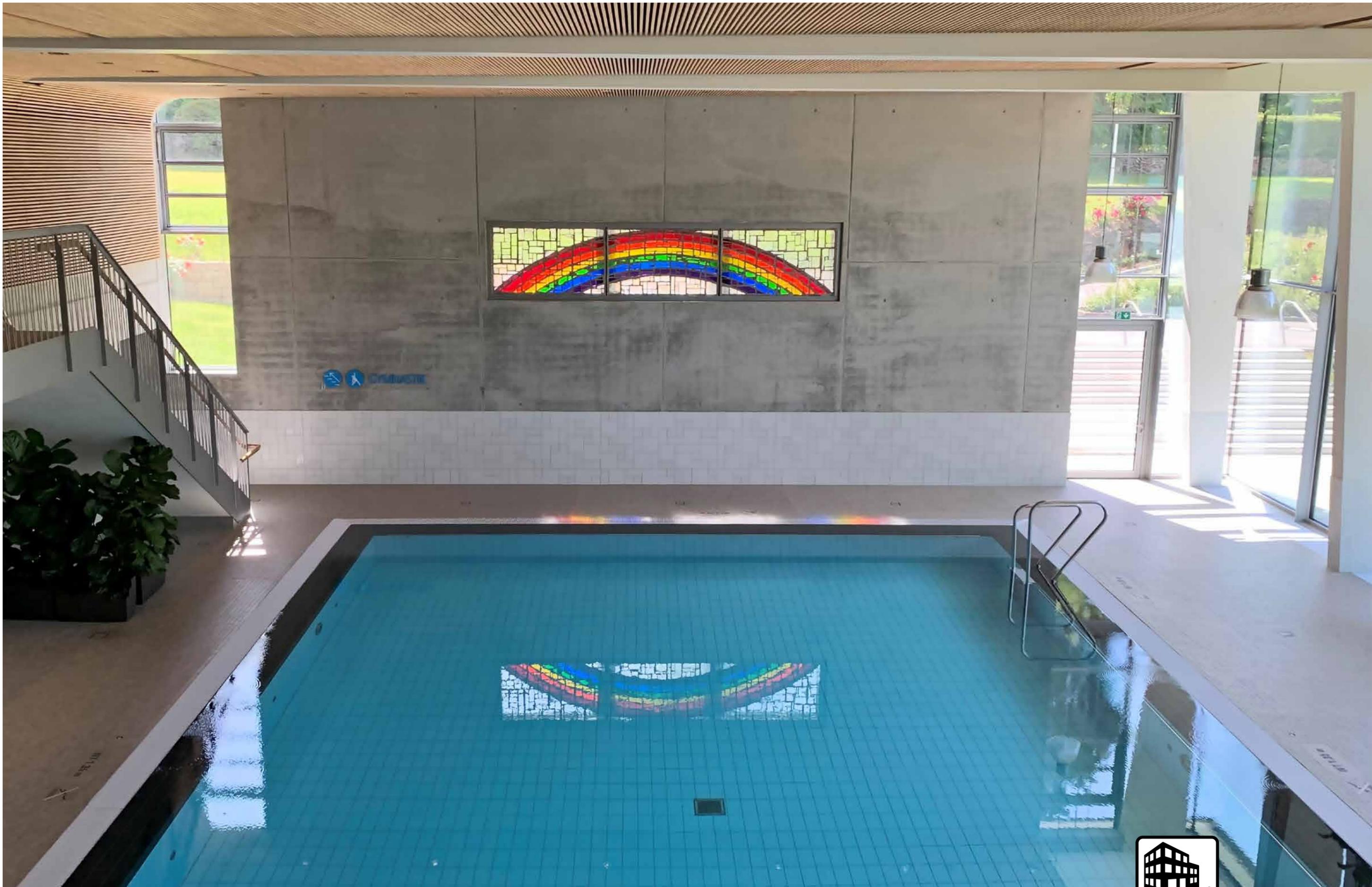




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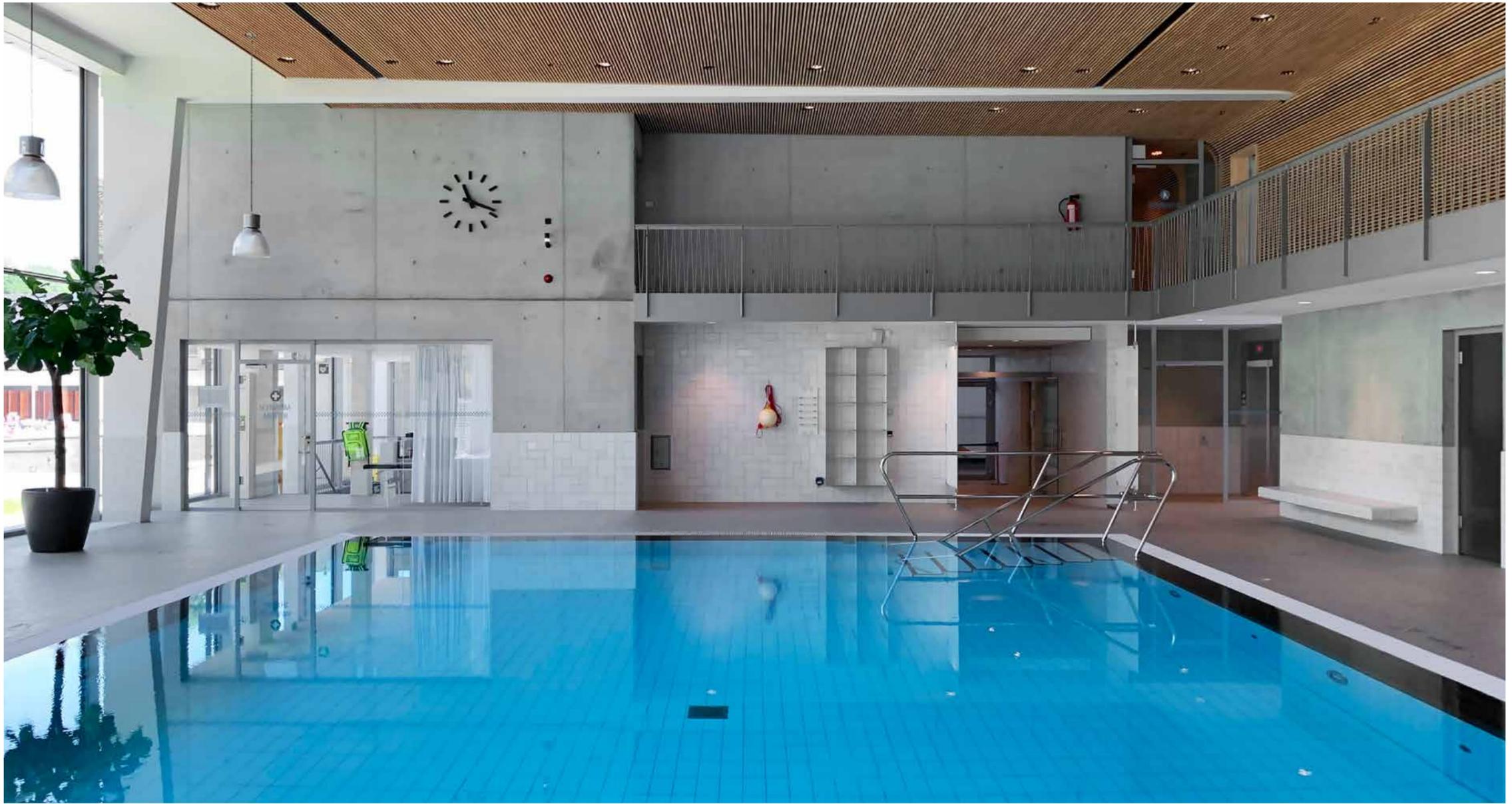


Berg mineral baths, Stuttgart



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Berg mineral baths, Stuttgart



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Berg mineral baths, Stuttgart

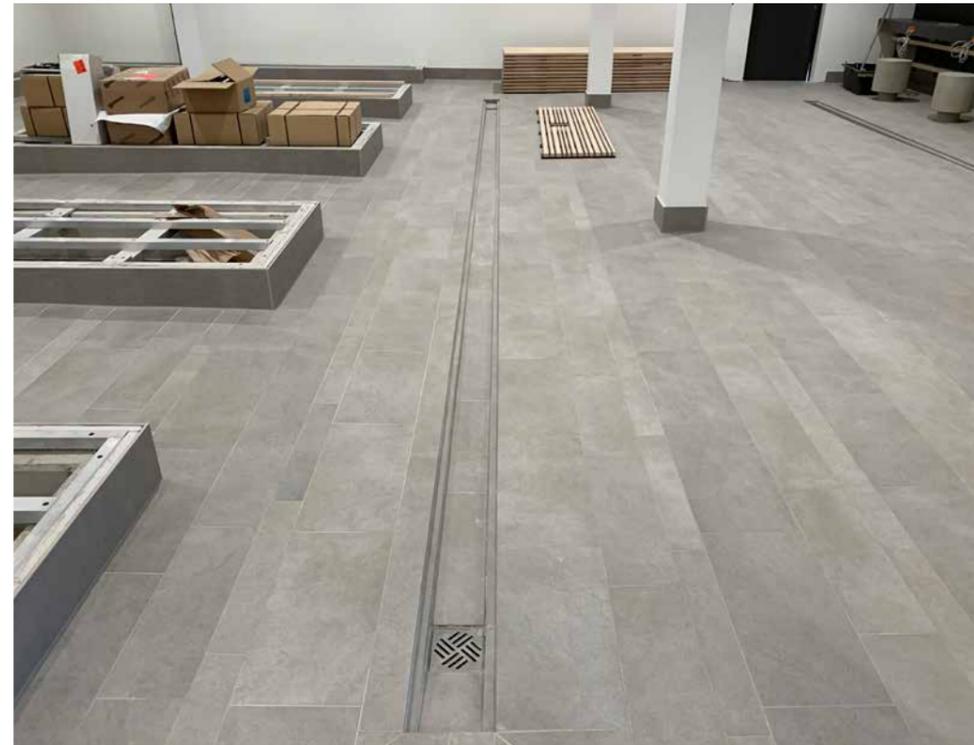


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Berg mineral baths, Stuttgart

New lease of life for historic baths in Stuttgart

Sopro system solutions specified for extensive tile-laying package

The Berg mineral baths clearly sets itself apart from the two other such facilities in Baden-Württemberg's capital: for many locals, it enjoys cult status on account of its water, which "sparkles like champagne". In the last few years, a refurbishment and extension scheme developed by Stuttgart-based architectural practice 4a Architekten has seen the building renewed and a new pool added. Particularly for the tiling works to the pools and pool decks, the constant inflow into the baths of untreated natural mineral water necessitated the use of highly resistant, reaction resin-based Sopro system products.

Stuttgart locals commonly refer to the Berg mineral baths simply as the "Berg" or the "Neuner". The latter nickname refers to Friedrich Neuner, the royal court gardener who established the mineral baths in 1856. After a long period of private ownership, it was acquired by the City of Stuttgart in 2006. Then, in September 2016, the historic baths had to be closed for comprehensive refurbishment. With the building now restored to its former glory, complete with additional facilities in a new extension, Stuttgart's population can once again enjoy a dip in the sparkling mineral waters of its "Berg".

Low-key refurb treading a fine line between conservation and modernization

On its website, the architectural practice entrusted with the makeover, Stuttgart-based swimming pool specialist 4a Architekten, described the aesthetic and technical challenge of the refurbishment as being to find "the right balance between preservation, renewal and addition". To conserve the general character of the baths, the L-shaped building – with north and east wings framing a square-shaped, lake-like outdoor pool – was retained in its original form and stripped back to the shell. As the designers explain, only the old exercise pool in the eastern part of the facility was demolished to make way for an annexe to the bathing hall that maintains to the building's characteristic structure. Galleries with lounging areas were added to the bathing hall at both ground- and upper-floor level. A new wooden-louvre ceiling, which runs up one wall and over the pool to the glass facade on the opposite side,

lends the whole interior a warm and inviting feel. This is enhanced by the choice of finishings and harmonious colour scheme. All these things add up to create a pleasant, high-quality environment in the new "Berg".

The wide variety of ceramic coverings, selected as a key aesthetic and functional element in the mineral baths refurbishment, plays a significant role in the achievement of high amenity. The company appointed to perform the necessary waterproofing and tiling works was Fliesen Röhlich GmbH. The family business from Wendelstein has, in recent years, established itself as one of Germany's biggest tiling contractors. Now employing almost 300 highly skilled tile and natural stone layers, it specializes in the prompt and expert performance of large-scale national projects. Throughout the design and production phases, Sopro's Project Consulting team was at hand to provide both the architectural practice and contractor with advice and support. Sopro system solutions were specified for the entire waterproofing and tiling package in the baths interior.

Reaction resin-based products needed for mineral water pools

One particular challenge arose from the special water management system used at the Berg mineral baths. Every day, some five million litres of natural mineral water flow into the pools from five springs. This high volume eliminates the need for either recirculation, chlorination or any other water treatment. The pools are emptied every day after closing time. Then, during the night-time hours, the pools completely fill up again with fresh-flowing spring water. To take due account of the mineral water's properties, this made it vital to use reaction resin-based system solutions for the tile-laying operations. The pools and pool decks were first pretreated with Sopro EPG 522, a solvent-free, two-component epoxy resin. This provided a suitable base for the specified system waterproofing solution using Sopro PU-FD 570/571, a two-component, liquid polyurethane resin for waterproofing walls/floors below ceramic and natural stone coverings. The product is resistant not only to water, sea water and wastewater/sewage, but also to salt solutions and chlorinated, lime and thermal water. A further reaction resin-based system product – Sopro DBE 500, a two-component epoxy tile

adhesive – was then used to lay the coverings. The system product specified for finishing the joints in the coverings was Sopro FEP, a heavy-duty, two-component epoxy tile grout. A carefully blended mix of Sopro BH 869 construction resin, another epoxy-based product, and Sopro silica sand was used to grout around the various fixtures and for the capillary seals at joints.

Bybadet baths, Ålesund, Norway

Project

- » New-build leisure baths in centre of Norwegian port of Ålesund
- » Large baths complex with 50 m competition pool, 25 m training pool plus wave, instruction and paddling pools
- » Use of Sopro systems for waterproofing and tiling in baths as well as rendering to pools
- » Close working partnership with Agrob Buchtal Norge AS

Signboard

Supplier	Agrob Buchtal Norge AS
General contractor	VEIDEKKE ASA, Oslo, Norway
Contract volume	Approx. 4,500 m ²
Completion	April 2021



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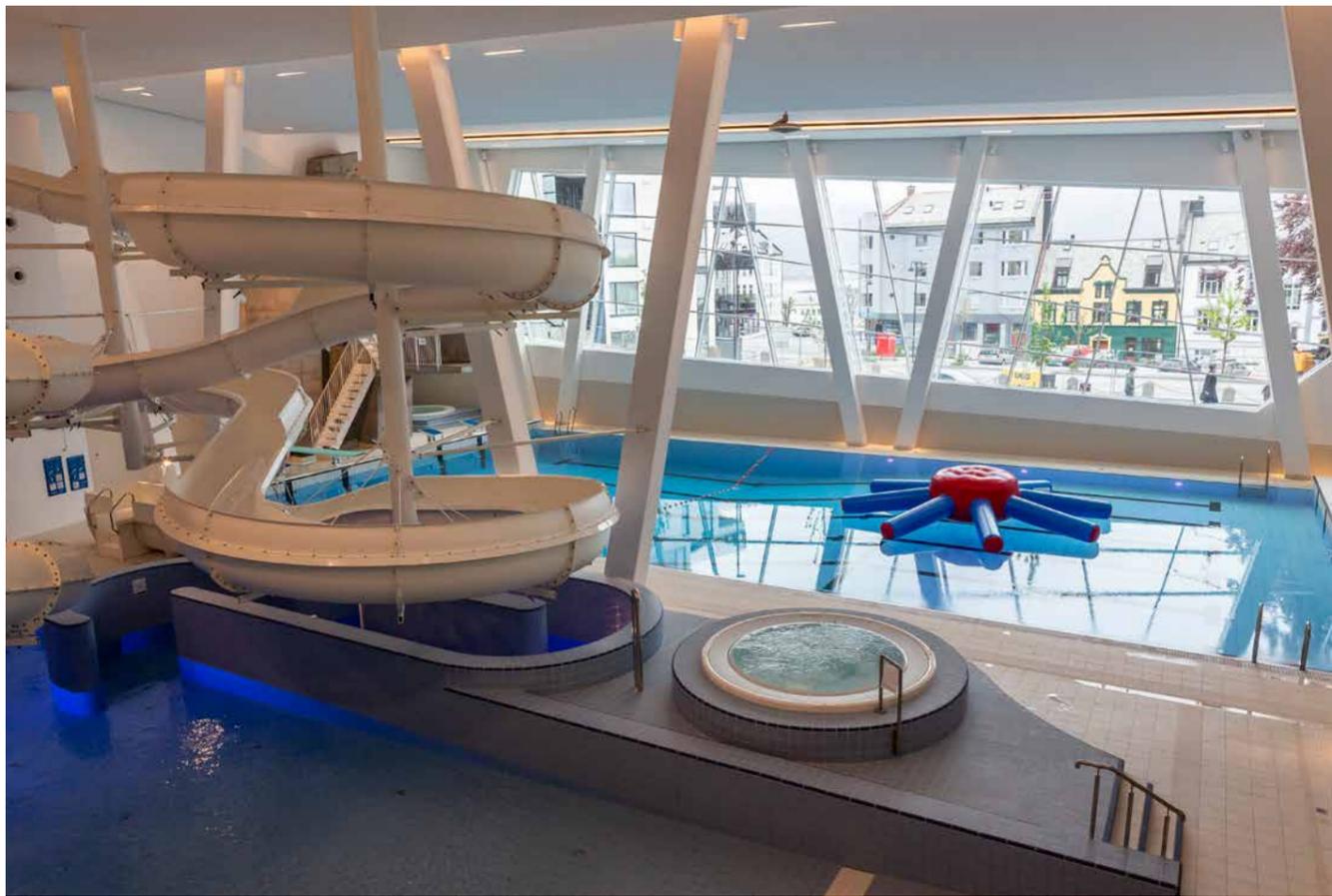


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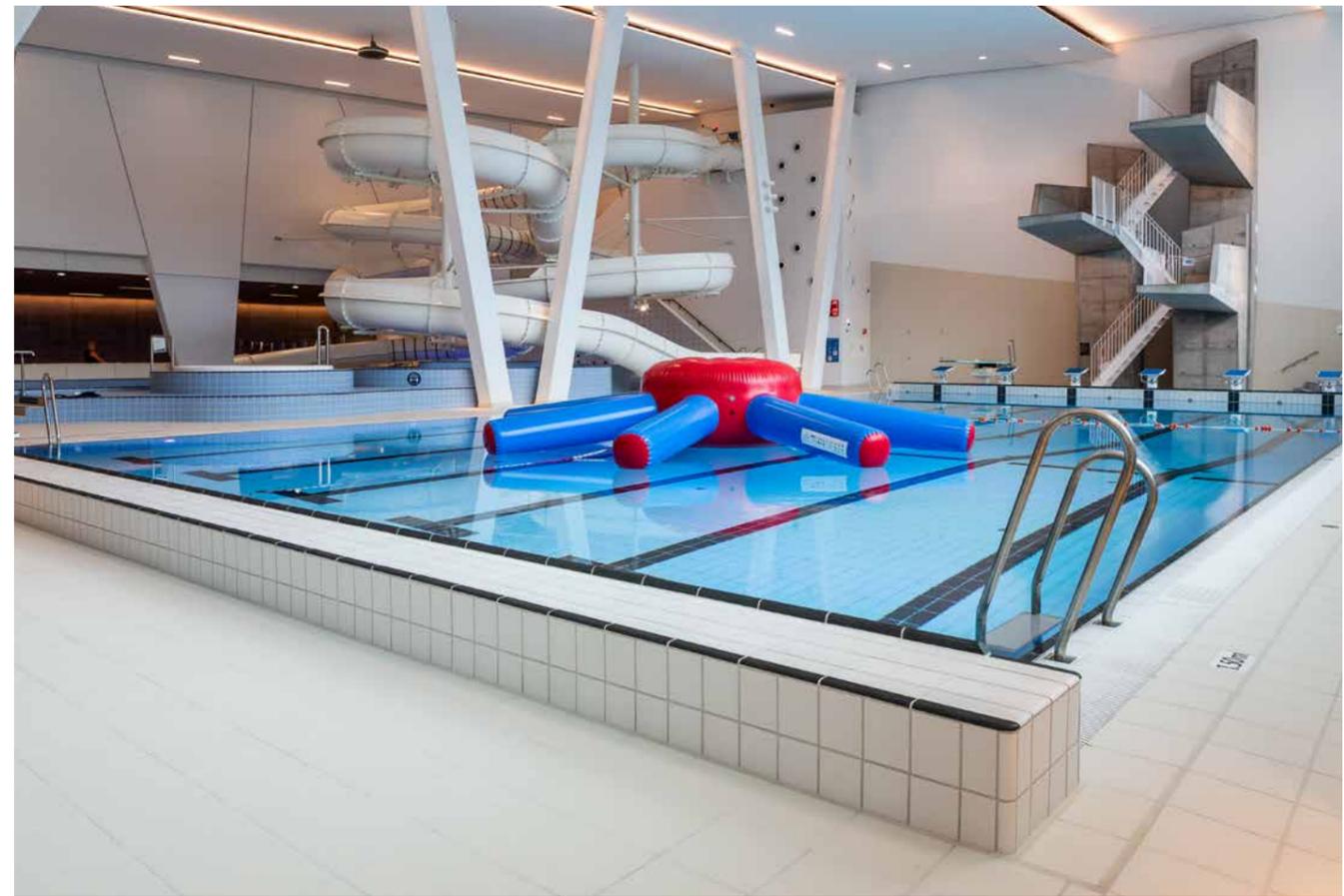


Products

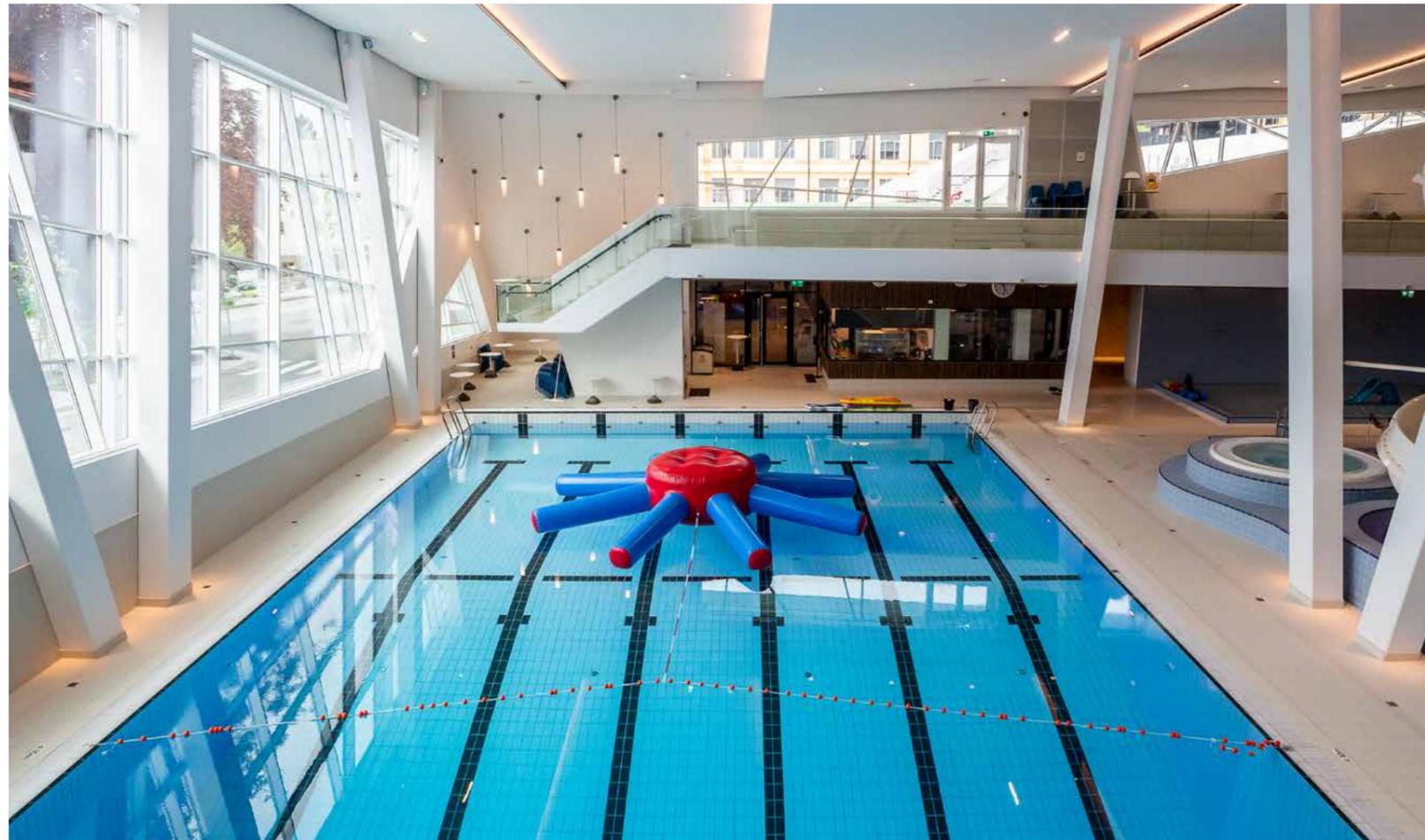
- Sopro GD 749 primer
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro FD 447 flexibilizing dispersion
- Sopro SBP 474 swimming pool render
- Sopro Rapidur® M5 rapid-set screed mortar (order no. 747)
- Sopro MEG 665 megaFlex S2 highly flexible tile adhesive
- Sopro MEG 666 megaFlex turbo Silver highly flexible tile adhesive
- Sopro MEG 667 megaFlex TX Silver highly flexible tile adhesive
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro Tfb high-strength tile grout
- Sopro FL plus flexible tile grout



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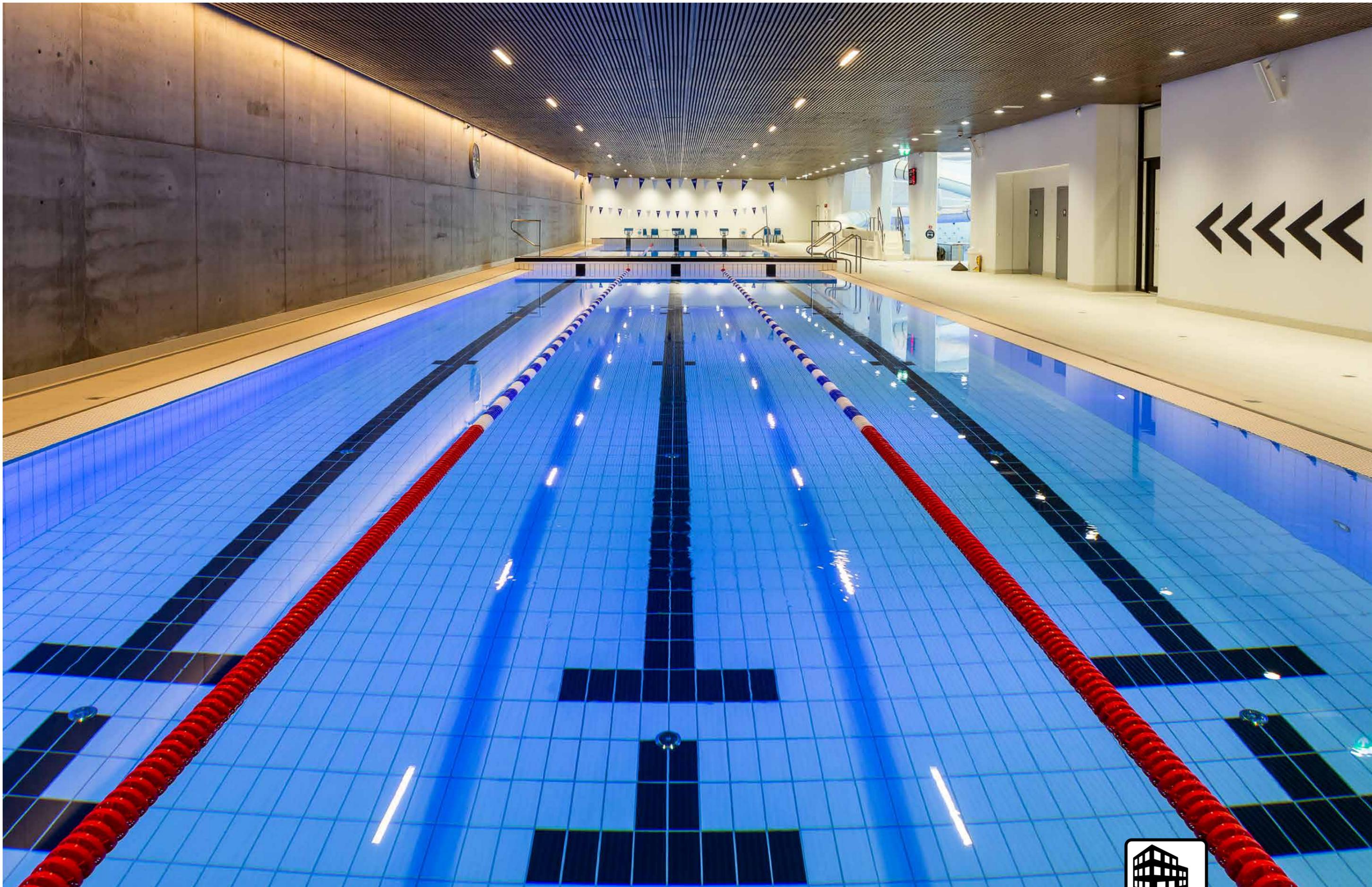
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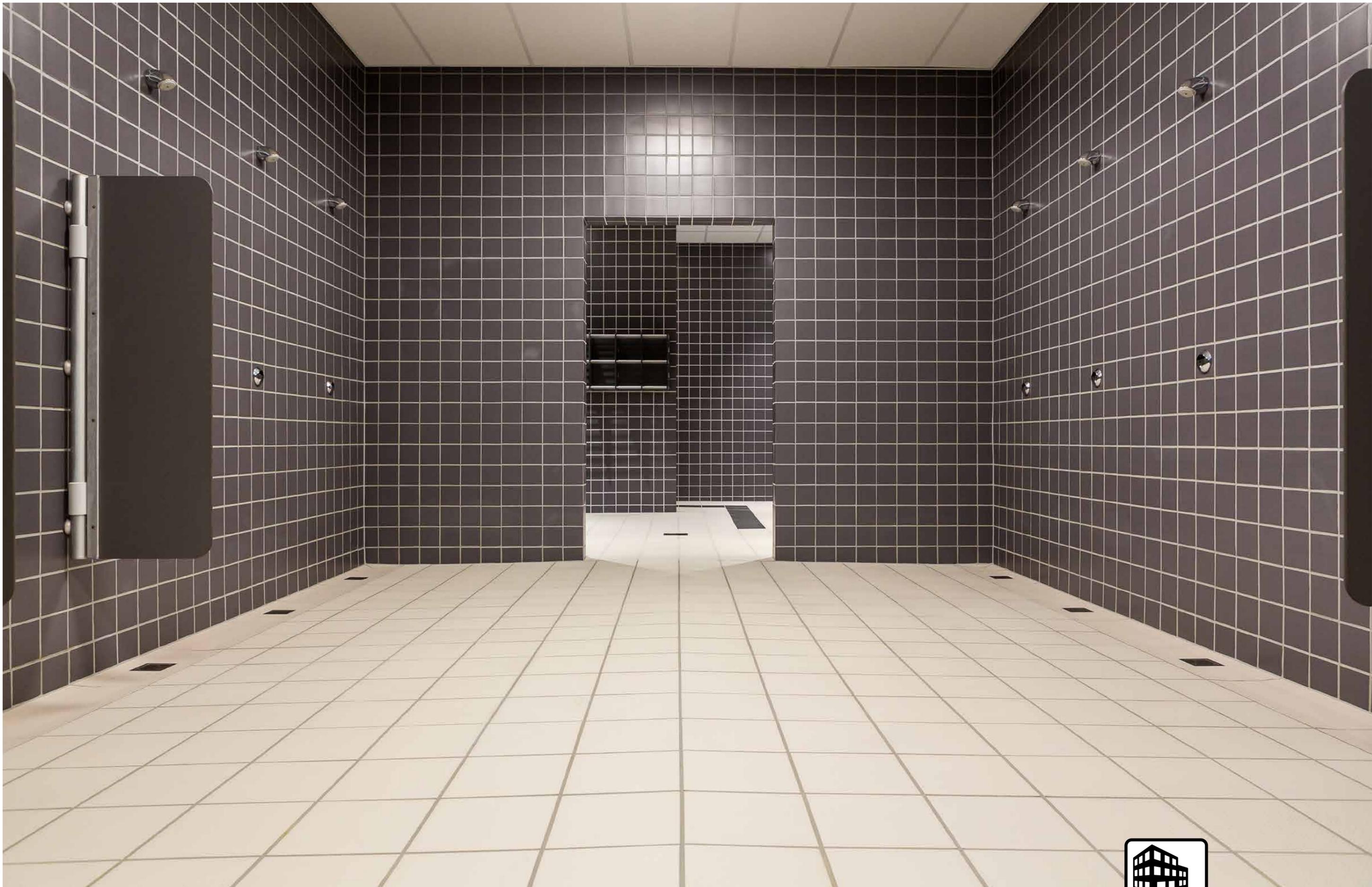
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Bybadet baths, Ålesund, Norway



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Bybadet baths, Ålesund, Norway



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Bybadet baths, Ålesund, Norway

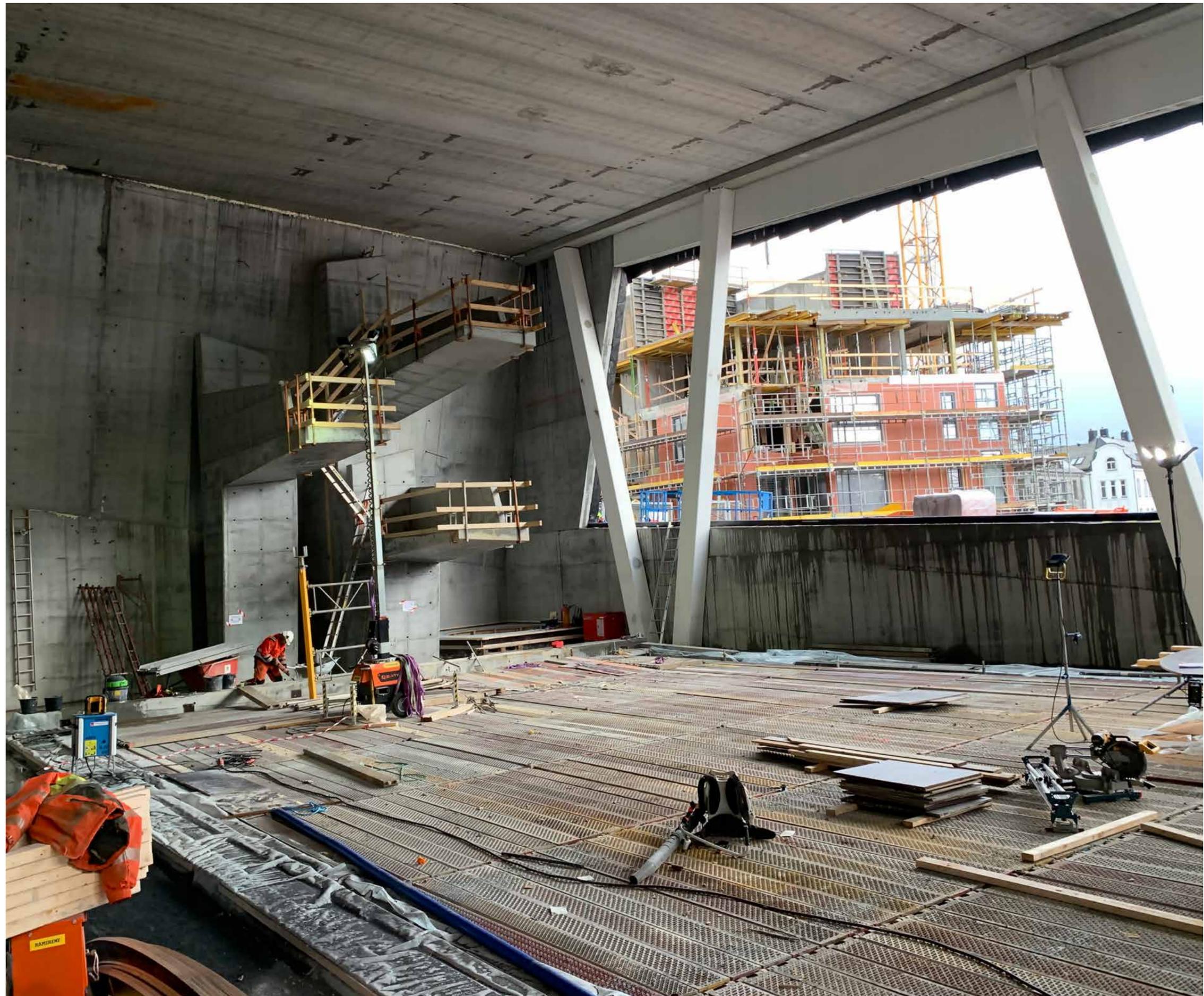


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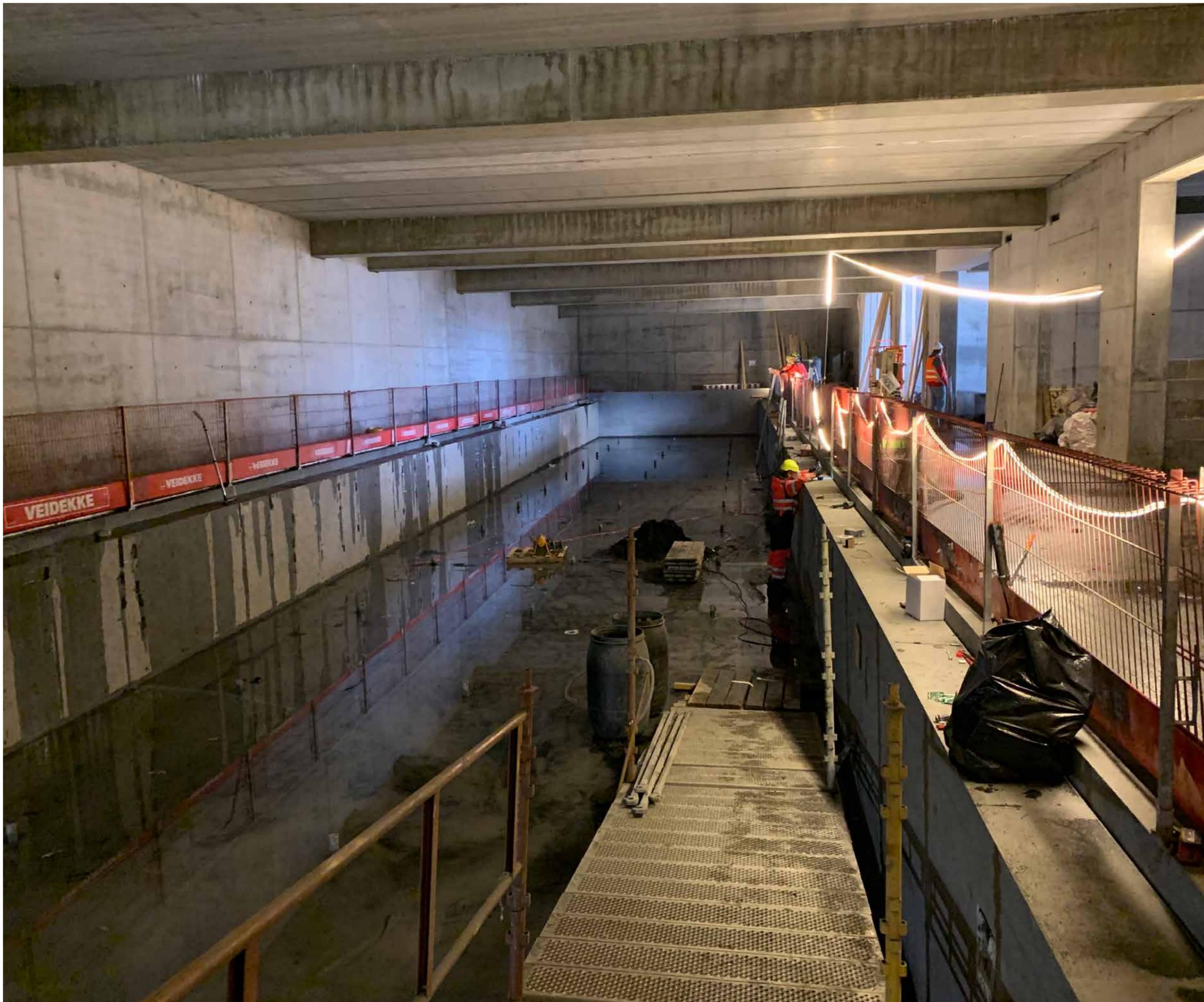
Bybadet baths, Ålesund, Norway



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Bybadet baths, Ålesund, Norway



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Bybadet baths, Ålesund, Norway

Attractive waterpark set against stunning backdrop

Sopro system solutions used for extensive tiling works

The Norwegian port of Ålesund recently witnessed the opening of the Bybadet, a modern, superlative-defying leisure baths. Set amid a breathtaking fjordscape, the new facility offers plenty of fun and exercise for young and old. The waterproofing and tiling works for the special, high-spec swimming pool ceramic finishes were carried out in close partnership with tile manufacturer Agrob Buchtal and its Norwegian distributor Agrob Buchtal Norge AS.

Situated in western Norway's Sunnmøre region, Ålesund is generally regarded as the Scandinavian country's prettiest town. With a population of 45,000, Ålesund is best known for its Art Nouveau inner-city architecture – though, ironically, the predominance of Art Nouveau buildings is the result of a fire in 1904 that destroyed virtually the entire town centre. In reconstructing the urban core, the planners and designers were inspired by the Art Nouveau style prevalent in Europe at that time and proceeded to adorn the building facades with fanciful painted ornamentation that can be admired to this very day. The town's appeal is enhanced by the exquisite landscape of the Sunnmøre region, with its picturesque fjords, enchanting islands and majestic mountainscape.

Working partnership with Agrob Buchtal Norge AS

The centre of Ålesund, with its spectacular Norwegian backdrop, is now graced by a new, modern leisure baths – the Bybadet. The waterworld operator's top priority is to offer oodles of fun for all visitors, both young and old. Key attractions include a wave pool, a toddlers' paddling pool and a selection of flumes. While a 50 m sports pool, a 25 m training pool and a diving tower are provided for those more keen on physical exercise, guests wishing to relax can seek out a soothing whirlpool or sauna.

As is usual for swimming pool schemes, tile coverings in a variety of shapes and colours were specified for large parts of the new leisure baths and, above all, in the above-mentioned pool areas. The project team in Ålesund opted exclusively for high-spec products made by Agrob Buchtal. This company, which ranks among the premium

manufacturers of swimming pool ceramics, boasts a comprehensive, integral product portfolio covering the full range of requirements placed on baths architecture. The close working partnership between Sopro Bauchemie and Agrob Buchtal Norge AS, the swimming pool specialist's Norwegian distributor, which also acts as merchant for Sopro's products in Norway, guaranteed full technical and sales support for the waterproofing and tiling works at the Bybadet.

Sopro swimming pool system for maximum reliability

Swimming pool schemes necessitate special solutions, not only in terms of the incorporated ceramic coverings, but also with regard to the deployed building chemical products. By adopting the Sopro swimming pool system, the project team ensured the exclusive use of perfectly co-ordinated products for all operations, from substrate preparation and waterproofing to tile laying and grouting. One of the system products specified was Sopro SBP 474 swimming pool render, which was used to create level substrates in the pools for all subsequent works. In the wet spaces and underwater areas, Sopro TDS 823, a high-performance, flexible, rapid-set, two-component, mineral sealing slurry, ensured the fast and efficient installation of a highly reliable waterproof membrane below the tile coverings. Agrob Buchtal's ceramic products were bonded with the time-tested Sopro's No.1 flexible tile adhesive as well as products from Sopro's S2-grade megaFlex range. The highly flexible, two-component, cementitious megaFlex adhesives are used for the extra-safe installation of tile coverings. By virtue of their exceptional properties (including high flexibility and low water absorption), all three products – Sopro MEG 665 megaFlex S2, MEG 666 megaFlex turbo Silver and MEG 667 megaFlex TX Silver – vouch for maximum reliability. The joints in the coverings at the Bybadet baths were finished with Sopro TF+ and TFb, both proven high-strength tile grouts for heavy-duty areas such as swimming pools.

Nordbad baths, Darmstadt

Project

- » Contemporary new timberwork building to replace Darmstadt's ageing swimming pool
- » Use of Sopro system solutions for waterproofing a total of 5 swimming pools and 4 overflow tanks
- » Connection of waterproof membrane to glass facade
- » 1,800 m² pool area

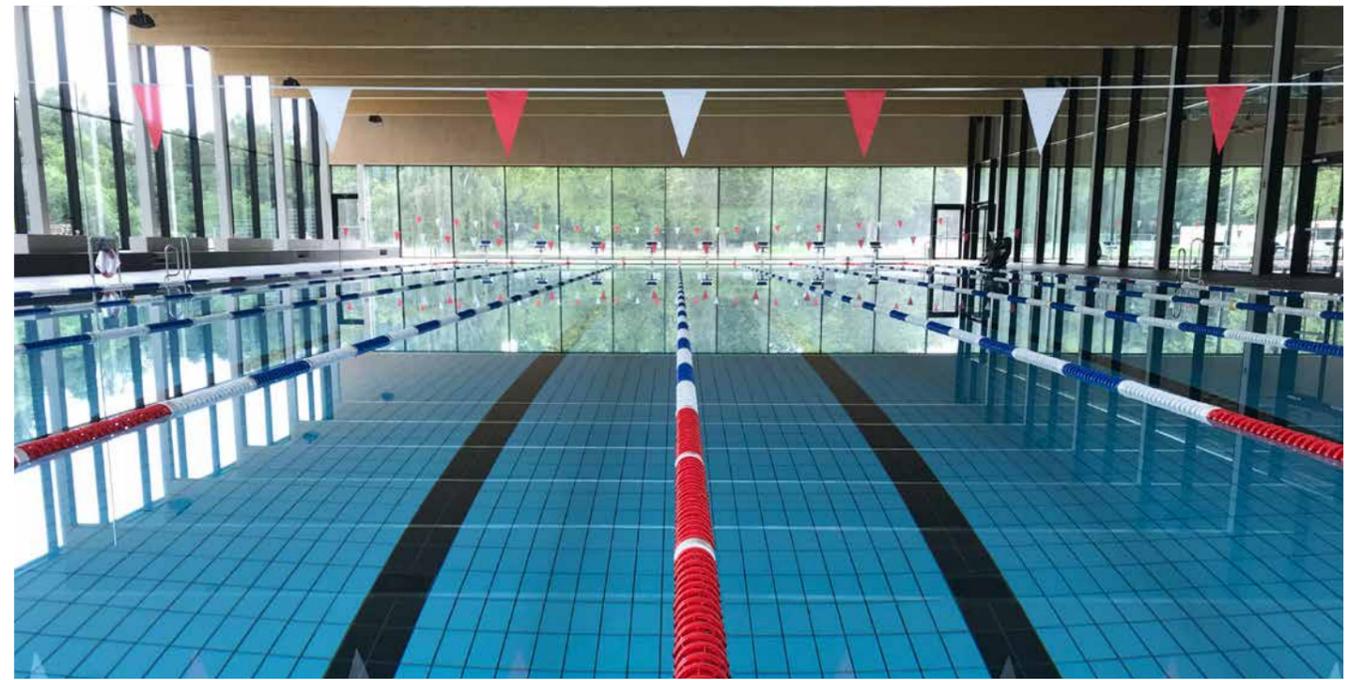
Signboard

Design practice	Sacker Architekten, Freiburg K+K Ingenieurgesellschaft, Neckarsulm
Applicator	Fliesen Lepping, Vreden
Client	City of Darmstadt
Contract volume	8,000 m ² of waterproof membranes (swimming pools, pool decks, sanitary facilities, changing rooms, overflow tanks); 180 m grouted capillary seals
Completion	July 2021



Products

- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro SBP 474 swimming pool render
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro DSF 623 flexible RS sealing slurry
- Sopro TFb high-strength tile grout
- Sopro BH 869 construction resin



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Nordbad baths, Darmstadt

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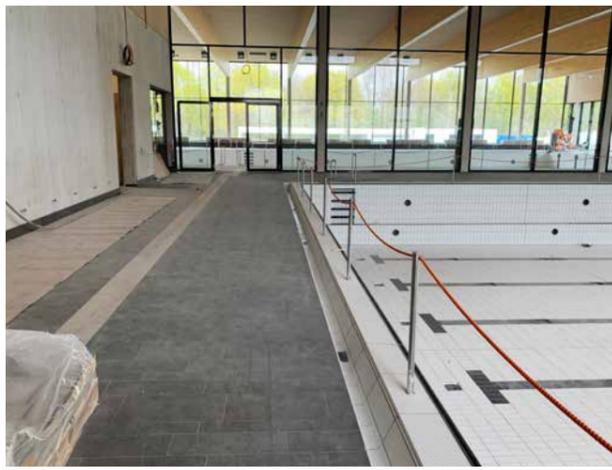


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New attraction in Darmstadt's Bürgerpark

Sopro swimming pool system specified for extensive waterproofing and tiling works

The City of Darmstadt had been debating the future of its Nordbad baths for over a decade before the decision was finally taken to free up space for a new facility by demolishing the dilapidated, 1971-built indoor pool. Although the new Nordbad was originally planned purely as a sports pool complex, it will now double up as a multi-purpose venue: as a family baths, as an instruction pool for schools, and as a club and competitive sports centre.

The modern, architecturally elaborate indoor pool scheme, which immediately adjoins an existing outdoor pool facility, was developed by Freiburg-based Sacker Architekten, a practice specializing in the design and realization of all kinds of baths projects. As the architect's website puts it, "Our in-depth know-how in this field enables us to factor in all relevant issues at a very early stage of design. Not only do we develop new-build schemes with all due attention to detail, we also offer the necessary masterplanning skills for the smooth and expert implementation of refurbishment projects under operating conditions."

Interplay between aesthetics and functional efficiency

In its design work, Sacker Architekten attaches particular importance to the "interplay between aesthetics and functional efficiency", a priority also reflected in the concept for the new Nordbad baths. This is immediately apparent at the entrance with its eye-catching canopy "that combines the access routes to the indoor and outdoor pools with a welcoming gesture" and creates a shared porch space for the two separate facilities. In the designer's words, this arrangement is intended to "improve the compactness and legibility of the indoor and outdoor pool ticket desk functions and associated catering outlets. The large baths complex thus becomes a streamlined unit with short circulation routes and an economical operational organization".

For all its functional efficiency, however, the design concept also pays close attention to aesthetic criteria. As the architects explain, "This is achieved by a careful materials mix featuring

wood and dark-anodized metal, which ensures that the structure blends harmoniously with the Bürgerpark's landscape setting."

Flawless installation of ceramic coverings with Sopro system products

The diverse types of ceramic covering specified for the new Nordbad indoor pool play a significant role in the achievement of a harmonious design concept. They act as a key aesthetic and functional element in all areas – from the entrance lobby, changing rooms, showers and toilets to the pools and pool decks. The new indoor baths complex features a competition pool, training pool, instruction pool, exercise pool and two children's pools. The works also included the installation of a waterproof membrane to the overflow tanks below each pool.

For all the necessary waterproofing and tile-laying operations, the design and applicator teams opted for the use of perfectly co-ordinated system products tailored to swimming pool applications from the Sopro Bauchemie range. The elaborate substrate preparation, waterproofing and tiling works were performed by Fliesen Lepping GmbH from Vreden, a successful SME specializing in tiling and waterproofing contracts for swimming pools. Established over 50 years ago, the company has earned itself a nationwide reputation for reliability, flexibility and top-quality workmanship. Throughout the design and production phases, Sopro's Project Consulting team was at hand to provide both the architectural practice and contractor with advice and support.

In most cases, the irregularities encountered in the structural fabric were evened out with Sopro SBP 474 swimming pool render to produce level, plumb and true substrates for the subsequent installation of ceramic coverings. Utmost accuracy was required to meet the strict tolerances, particularly for the competition pool. Sopro TDS 823, a high-performance, flexible, two-component, mineral sealing slurry, was specified for installation of the standards-compliant waterproof membranes below the tile coverings in the pools. The waterproofing product selected for the pool decks, changing rooms, showers and toilets was Sopro DSF 623, a one-component, mineral sealing slurry for the installation of flexible, crack-bridging membranes. The Agrob

Buchtal tiles were laid using the buttering/floating method with Sopro's No.1 flexible adhesive while the joints in the coverings were finished with Sopro TFb tile grout.

One special task involved forming the (180 m long) junction between the waterproof membrane and the facade. For this purpose, the entire perimeter of the screed was chamfered and the membrane connected to the facade units with self-adhesive sealing tape. Sopro BH 869 construction resin, a two-component epoxy resin, blended with Sopro KQS 607 crystal quartz sand, was then used to grout the resulting void and create a capillary seal.

Börde thermal baths, Bad Sassendorf

Project

- » Refurbishment of pool, shower, sauna and changing facilities under operating conditions
- » Addition to thermal baths of new outdoor sauna pool, sauna house and salt sauna with new saline field
- » Use of Sopro reaction resin system for waterproofing and tiling works to brine facilities



Signboard

Design practice	Passgang Architekten BDA, Lipstadt
Applicator	Grosche Fliesen-& Schwimmbadbau GmbH, Brilon
Client	Town of Bad Sassendorf
Contract volume	Approx. 3,500 m ²
Completion	July 2021



Products

- Sopro SBP 474 swimming pool render
- Sopro EEK 871 epoxy screed aggregate
- Sopro BH 869 construction resin
- Sopro EPG 522 epoxy primer
- Sopro PU-FD 570 surface sealant for walls
- Sopro DBE 500 epoxy tile adhesive
- Sopro FEP epoxy tile grout

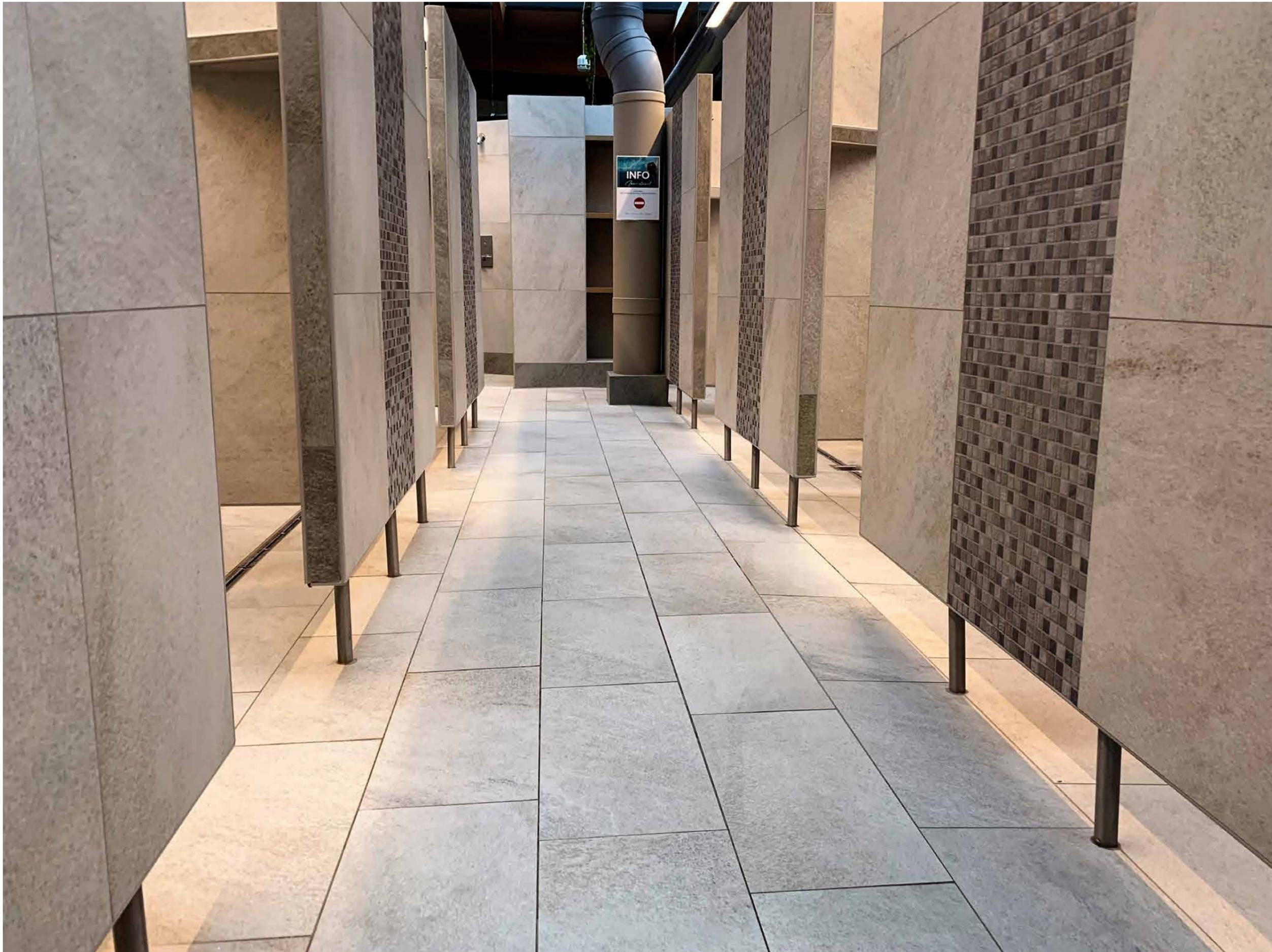


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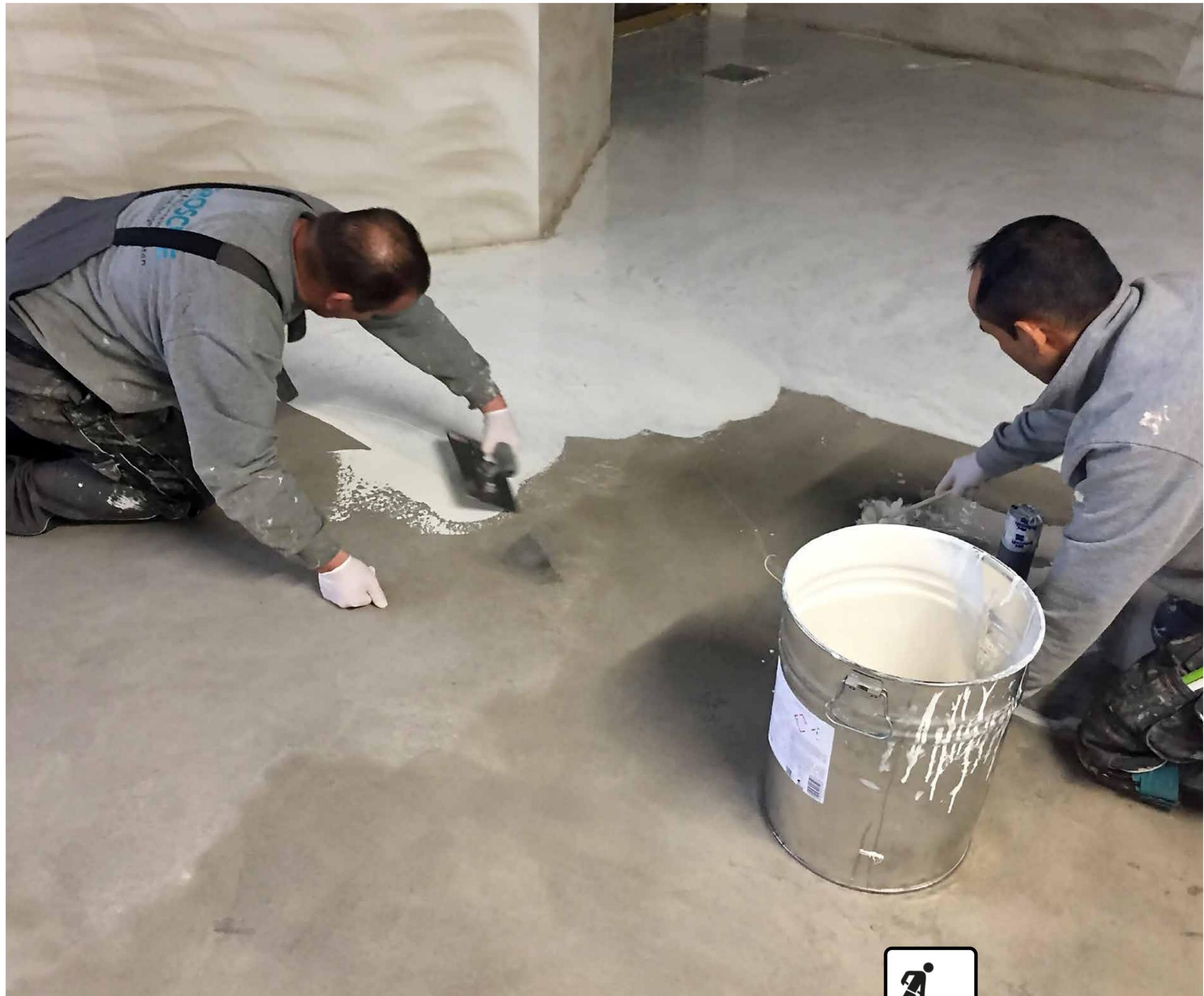
Börde thermal baths, Bad Sassendorf





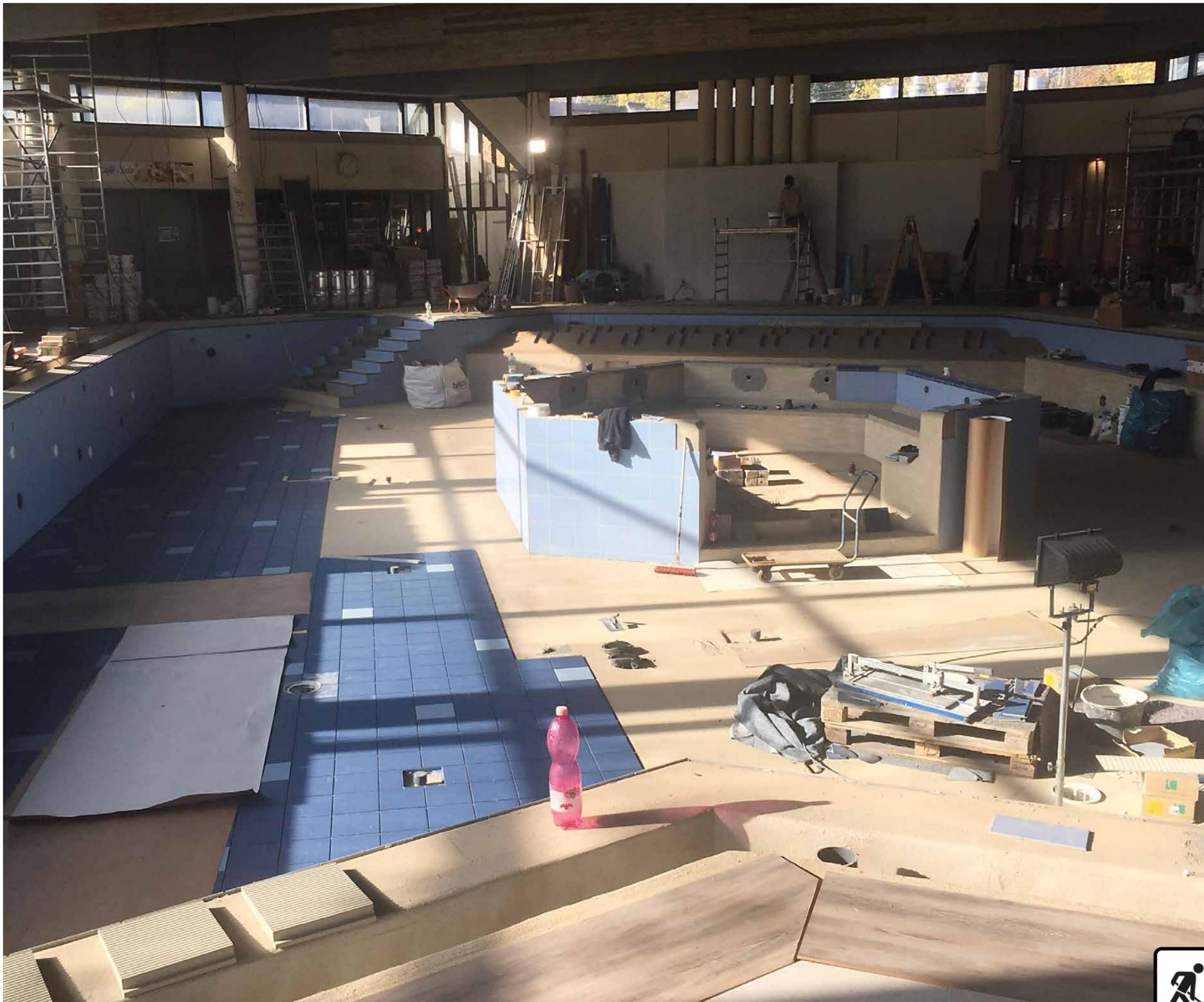
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Börde thermal baths, Bad Sassendorf



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P H A S E

Börde thermal baths, Bad Sassendorf



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Börde thermal baths, Bad Sassendorf

Natural brine for relaxing seaside feel

Sopro's reaction resin-based system products vouch for maximum tiling reliability

The Börde Therme thermal baths in Bad Sassendorf has undergone an extended makeover involving the comprehensive refurbishment and extension of both swimming pool and sauna areas. The use of untreated brine at the thermal baths necessitated the specification of highly resistant, reaction resin-based Sopro system products.

In the town of Bad Sassendorf in the Sauerland region in western Germany, the health and well-being of spa guests have enjoyed top priority for over a century. The spa's centrepiece is the beautifully tended, 30-hectare spa park with its eye-catching graduation tower that acts as a "salt air dispenser". However, those also seeking a saltwater experience will find ample opportunity in the brine pools at the Börde Therme. After a roughly three-year construction period, the thermal baths now shines in new splendour.

Wide-ranging wellness offerings: from "champagne loungers" to floating brine pool

The focus of the alteration and extension scheme was on renovating and modernizing the indoor and outdoor pools at the thermal baths. Accordingly, Bad Sassendorf now boasts two outdoor pools linked by a swimming channel and fitted, among other things, with 20 bubble beds that are fondly referred to as "champagne loungers". A new indoor attraction is the active therapy pool with waterfall scuppers and massage jets. The technical and design features of the 350 m² indoor pool were likewise fully upgraded. All pools are filled with natural brine at a temperature of over 33°C from officially certified mineral spa springs with a salt content of 3.0–3.4%. To enhance the effect of the salts, the salinity is increased twice daily, a process entailing systematic enrichment of the water with mineral salts and trace elements.

As the operator puts it, a day spent at the thermal baths in Bad Sassendorf "feels almost like a day at the seaside". This feel is intensified by the likewise extended sauna suite, whose wide range of offerings now includes a panorama sauna, graduation tower sauna and crystal sauna – not to mention the so-called "boiling hut". Another special attraction in the sauna area is the floating

pool, where a 15% salt content offers visitors to the Westphalian town a Dead Sea experience in which they can jump into the water without sinking and automatically "float" on the surface. All these facilities are complemented by a series of rest areas in the sauna garden, in which a new "rest house" has been installed. A rest area has also been added to the graduation tower. Apart from the pools and saunas, the modernization and extension scheme included the showers and changing rooms. Here, as in all other areas, the works were performed under operating conditions.

Highly resistant, reaction resin-based Sopro system products needed for natural brine

While a natural brine pool may offer a delightful swimming and floating experience for some, it poses a stiff challenge for others, namely the contractors responsible for installing the tile coverings. As a standard feature of swimming pool construction, ceramic coverings in all varieties figured prominently in the Börde Therme refurbishment and extension scheme as a key aesthetic and functional element in all areas – from the pools and pool decks to the showers, toilets and changing rooms. The elaborate substrate preparation, waterproofing and tiling works were performed by Grosche Fliesen & Schwimmbadbau GmbH from the Sauerland town of Brilon. According to the company's website, Grosche GmbH boasts a 60-year-plus track record of quality and reliability and, specifically for swimming pool and wellness schemes, offers "all-in-one solutions, sound workmanship and the in-depth know-how needed for the professional implementation of both large-scale and highly tailored contracts".

For the waterproofing and tile-laying works at the Börde Therme, it was vital to take account of the properties of the brine used in varying concentrations at the baths. To eliminate any risk of damage from the very start, the project team in Bad Sassendorf opted for the use of purpose-developed system products from Sopro's trade range. Based on reaction resins, the specified products guarantee reliable performance, even when exposed to aggressive saltwater. After the substrates had been levelled with Sopro SBP 474 swimming pool render, the outdoor pool surfaces were pretreated with Sopro EPG 522, a solvent-free, two-component epoxy resin.

This provided a suitable base for the specified system waterproofing solution using Sopro PU-FD 570/571 surface sealant for walls/floors. The two-component, liquid polyurethane resin is used for the installation of waterproof membranes below ceramic and natural stone coverings, and is available in a sag-resistant consistency (PU-FD 570) for wall application and a self-levelling consistency (PU-FD 571) for floors. The product is resistant not only to water, sea water and wastewater/sewage, but also to salt solutions and chlorinated, lime and thermal water. The tiles were bonded with another system product, Sopro DBE 500, a two-component epoxy tile adhesive that is used to install ceramic coverings with the thin-bed method and is resistant to aggressive waters, alkaline solutions, and diluted mineral and organic acids. The system product used to finish the joints in the coverings was Sopro FEP, a heavy-duty, two-component epoxy tile grout.

A special solution was needed for the above-mentioned bubble beds: to support these, a bedding and base construction comprising a mix of Sopro BH 869 construction resin and Sopro EEK 871 epoxy screed aggregate was formed over the screed (itself partly laid with Sopro Rapidur® B5 rapid-set screed binder). The specially graded Sopro EEK 871 aggregate used in conjunction with Sopro BH 869 produces a heavy-duty, shrinkage-free, rapid-set synthetic resin mortar allowing the early application of coverings.

Public buildings

squares



Department of Pharmacy, Saarland University, Saarbrücken

Project

- » New, three-storey, state-of-the-art pharmacy practice building
- » Extensive tiling works throughout building complex
- » Highly resistant epoxy resin-grouted joints in all laboratory areas

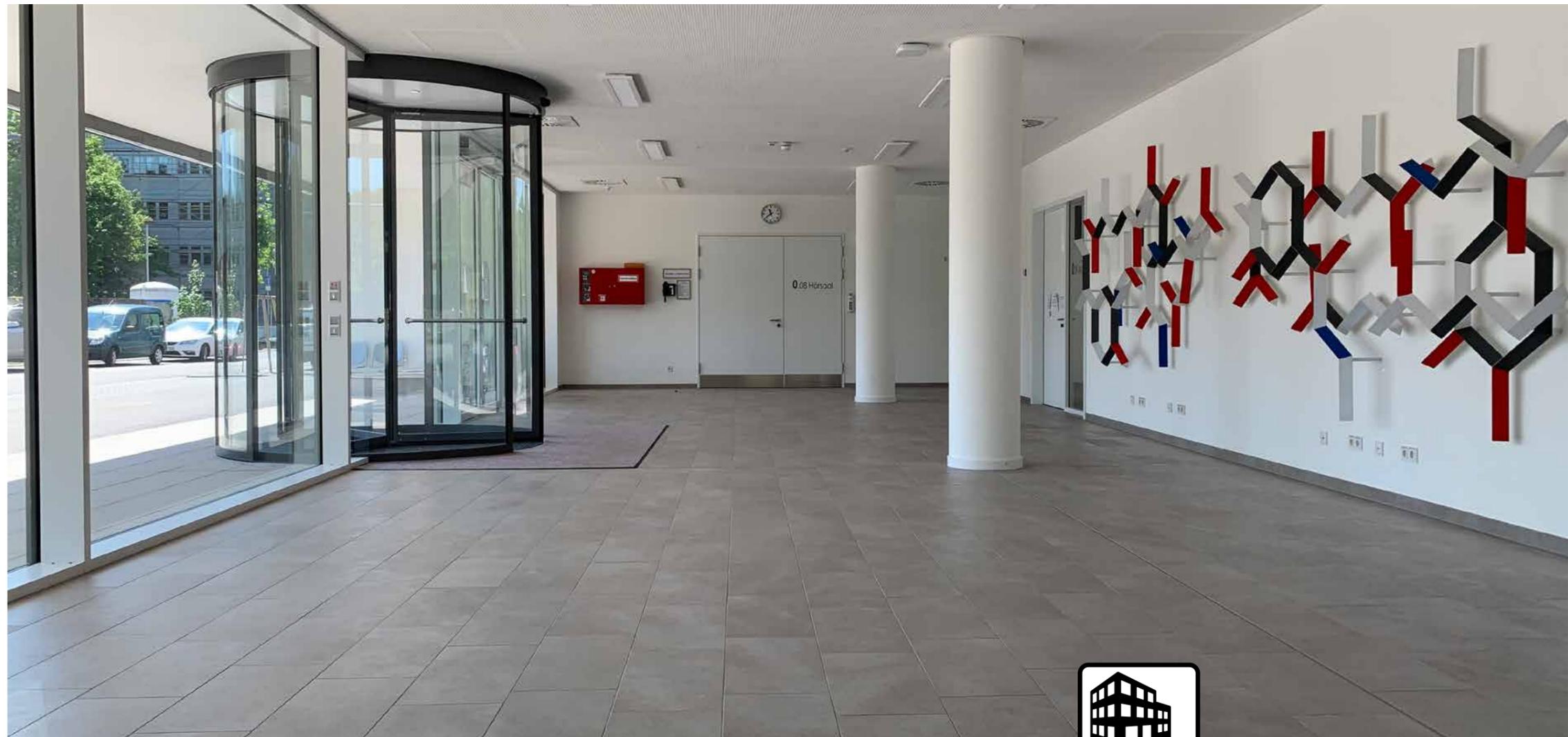
Signboard

Design practice	Prof. Focht+Partner GmbH, Saarbrücken
Applicator	Bau Kaltenberg GmbH, Leipzig
Client	Federal State Buildings Authority, Saarbrücken
Contract volume	Approx. 2,500 m ²
Completion	August 2020



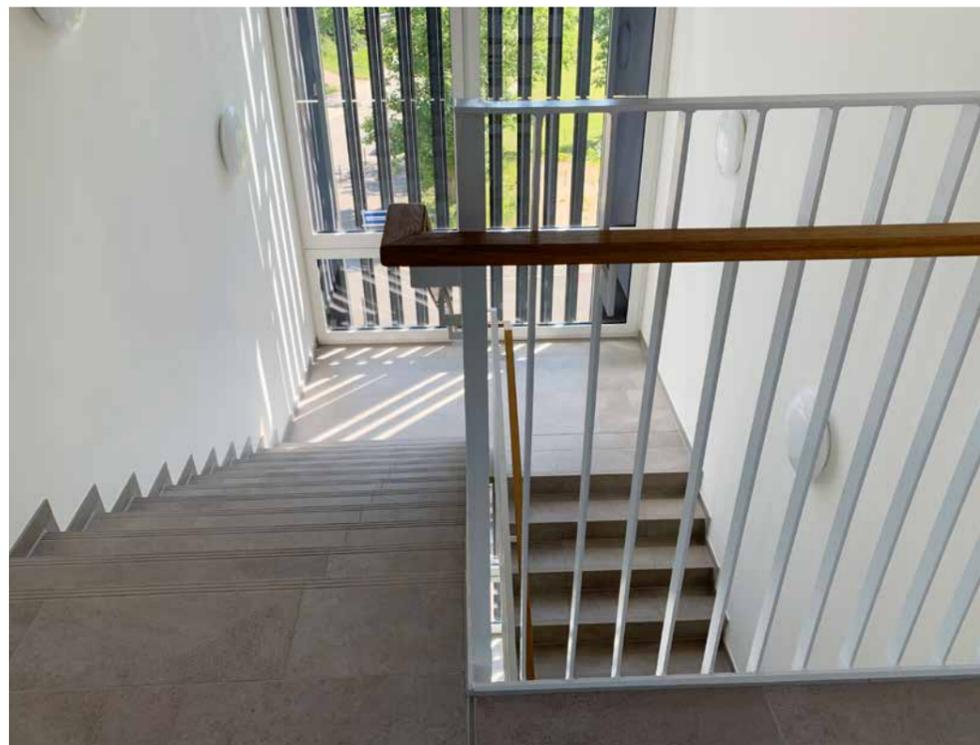
Products

- Sopro GD 749 primer
- Sopro FF 450 flexible tile adhesive
- Sopro FL plus flexible tile grout
- Sopro FEP epoxy tile grout
- SoproDur® HF-D 817 high-strength sealant
- Sopro Ceramic Silicone



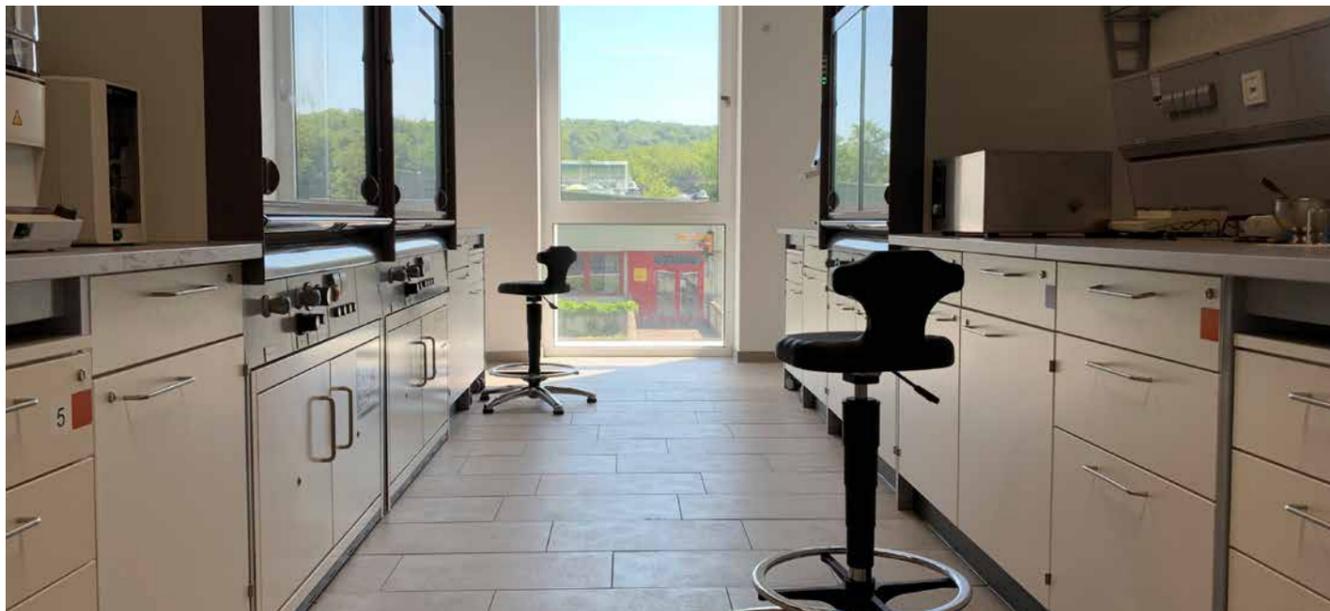
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Department of Pharmacy, Saarland University, Saarbrücken

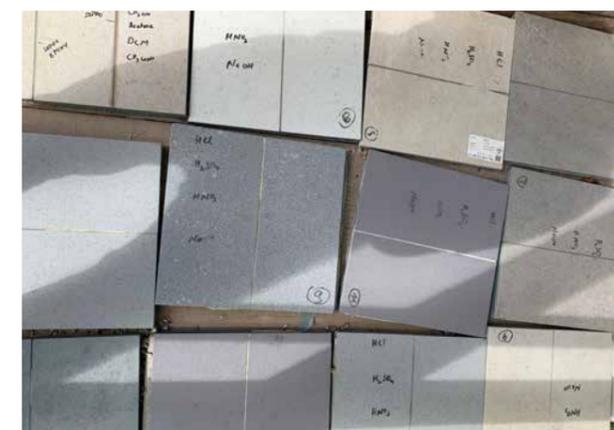
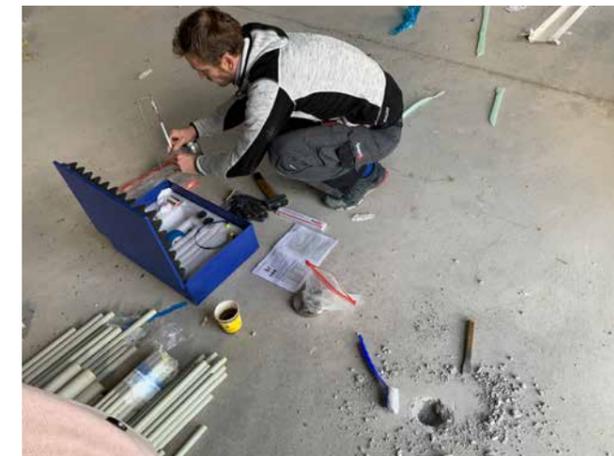
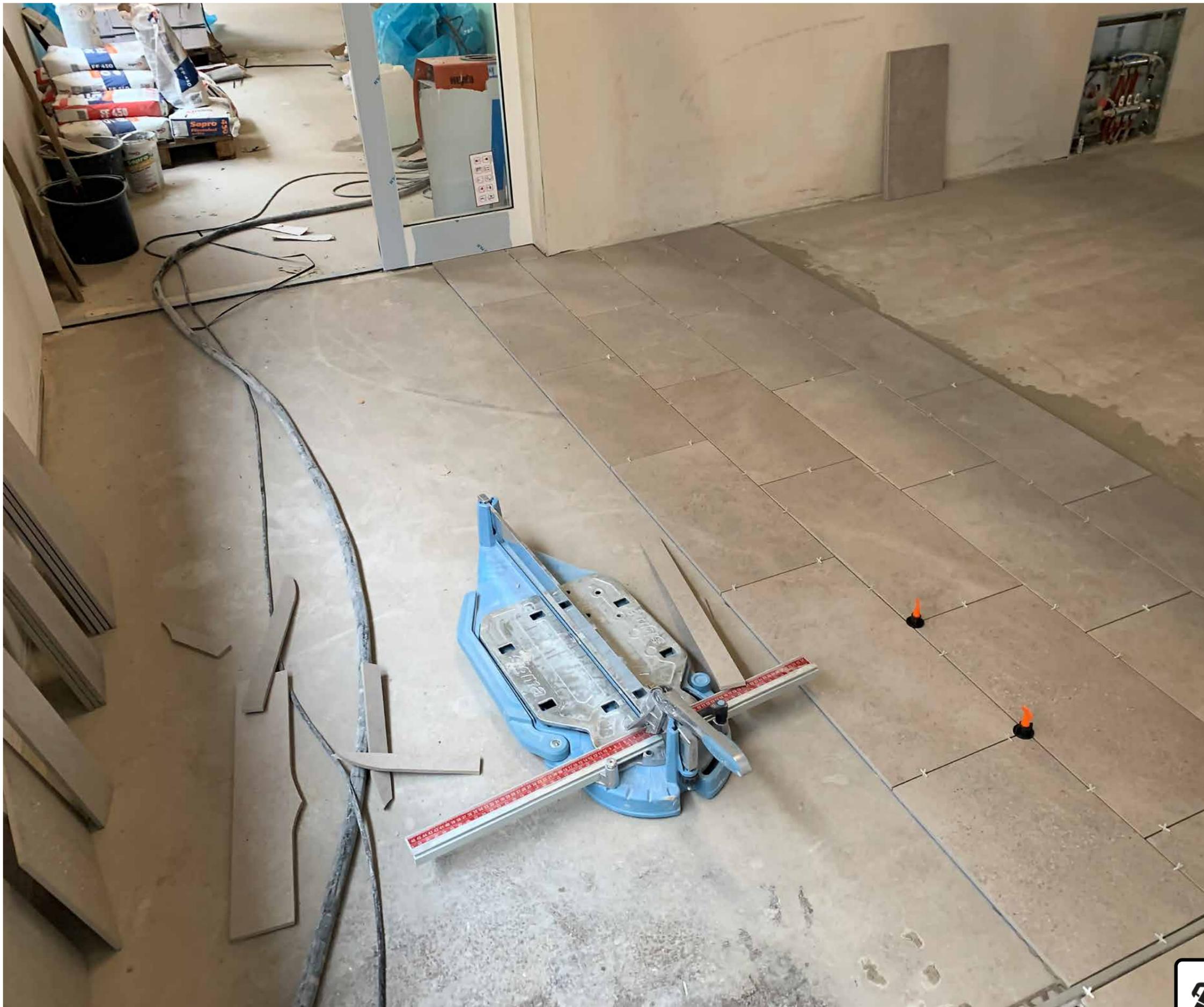




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Department of Pharmacy, Saarland University, Saarbrücken

State-of-the-art pharmacy practice building for young scientific talent

Use of Sopro system solutions for extensive tile laying

With its new pharmacy practice building, Saarland University is seeking to consolidate and strengthen its reputation as a “centre of scientific excellence” in teaching and research. The tile-laying works in the laboratory buildings were required to meet exceedingly stringent demands. As part of the ideal solution, the project team opted for the use of Sopro’s highly resistant, epoxy-based tile grouts.

May 2021 saw the official inauguration of Saarland University’s new pharmacy practice building. The modern, fit-for-future building will help to further enhance the university’s appeal as a place of education for tomorrow’s pharmaceutical professionals and boost Saarland’s credentials as a key centre for pharmaceutical teaching and research.

State-of-the-art new-build for efficient working, teaching and research

The new pharmacy practice building was designed by the distinguished Saarbrücken-based architectural practice Prof. Focht+Partner. The new facility, comprising three storeys plus penthouse level to accommodate the plantrooms, stands at the junction between Stuhlsätzenhausweg and the axis linking the university canteen with the southern campus. The main entrance, at ground-floor level on the north-eastern side, opens onto the “shared functions” zone with foyer, 100-seat auditorium, student working area and offices. Two stairwells located on opposite fronts of the building complex provide access from the ground floor to the practical training rooms on the two upper storeys.

The two laboratory floors, with some 500 m² of lab space, offer workplaces for chemical and chemical-biological practical training. This additional practical training provision has enabled Saarland University to considerably increase its intake of students on the Pharmacy course from 64 to 136. The up-to-the-minute laboratories and functional facilities allow students to conduct experiments independently while providing them with an early taste of intriguing research projects.

At the same time, the innovatively equipped interior and optimized processes pave the way for efficient working, teaching and research at the Saarbrücken site.

High-spec tiling requirements in laboratory areas

A wide variety of tile coverings were selected for all parts of the complex – from the corridors and foyer to the laboratories and sanitary facilities. All necessary tiling works throughout the building were carried out by contractor Bau Kaltenberg GmbH using Sopro system solutions. Based in Leipzig, the tile- and mosaic-laying specialist gives top priority to the consistent application of cutting-edge technology in the reliable performance of its projects. The company accordingly recruits employees with many years of experience, in-depth technical expertise and craftsmanship that enable them to tackle even the most demanding contracts.

Particularly challenging on the Saarbrücken scheme was the installation and, in particular, the reliable grouting of the ceramic coverings in the laboratory spaces. To pinpoint the best possible solution, project architect Prof. Focht+Partner GmbH from Saarbrücken had already conducted thorough consultations with Sopro’s experts in advance. The focus of the detailed counselling was on the particularly “critical” materials and chemical substances that would be used in the laboratories and inevitably come into contact with the ceramic coverings. To ensure optimum tiling results, the potential grouting products were subjected to extensive tests under exposure to those substances classed as critical. As Sopro FEP plus was observed to perform the best, the project team decided to use this time-tested, high-performance Sopro product in all laboratories. After curing, the heavy-duty, two-component epoxy tile grout is resistant to aggressive waters, natural fats, chemicals, mechanical loads, freeze-thaw cycles and temperatures up to +100 °C.

New main fire station, Karlsruhe

Project

- » New-build main fire station and control centre
- » Use of Sopro system solutions for waterproofing and tiling works in catering kitchen, sanitary facilities, wet spaces, changing rooms and corridors
- » Large-format fully vitrified stoneware tiles in kitchen



Signboard

Design practice	Harder Stumpfl Schramm Freie Architekten, Stuttgart
Applicator	Fliesen Röhlich GmbH, Wendelstein
Contract volume	Approx. 2,500 m ²
Completion	April 2021

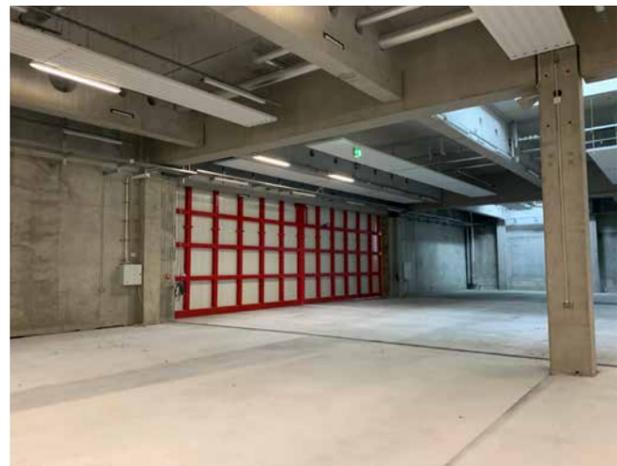


Products

- Sopro GD 749 primer
- Sopro RAM 3 454 renovation and levelling mortar
- Sopro PU-FD 570/571 surface sealant for walls/floors
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro FDF 525/527 flexible sealing compound
- Röhlich S1-grade flexible adhesive
- Sopro DF 10 flexible designer tile grout
- Sopro FL flexible tile grout
- Sopro TF+ high-strength tile grout



New main fire station, Karlsruhe



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New main fire station, Karlsruhe

Up-to-the-minute headquarters for Karlsruhe's firefighters

Sopro system solutions specified for all waterproofing and tiling works

The new headquarters for Karlsruhe's professional fire brigade in the city's eastern Oststadt district, which it occupied in April 2021, is much more than just a functional building. Much rather, the new facility was designed to offer the firefighters a high-amenity environment that could even be described as a "second home". The agreeable atmosphere is generated, among other things, by the numerous ceramic coverings that were expertly laid using products from Sopro Bauchemie's trade range.

Karlsruhe's old main fire station in Ritterstraße had served its time: quite apart from its unsatisfactory location, the spatial constraints of the over 90-year-old listed building no longer met the demands placed on a contemporary fire station. As the existing site offered no reserves for extension, the decision was taken to build a completely new facility on Wolfartsweiererstraße. The excellent road links of the site in Karlsruhe's eastern Oststadt district will enable the fire crews to reach emergencies even more quickly in future.

New building offering high-amenity environment

Designed by Stuttgart-based architectural practice Harder Stumpf Schramm Freie Architekten, Karlsruhe's new main fire station comprises two independent building volumes. The first of these houses the integral control centre for both the city and administrative district of Karlsruhe, which already came into service four years ago. The second, recently completed development phase saw construction of the fire station proper, which was ready for occupation in April 2021. Given that the new building adopts the distinctive, relief-like texture of the control centre facade, the overall composition – as intended by the architects – reads as a homogeneous whole. The centrepiece of the new main fire station is the football-pitch-size vehicle hall. It differs fundamentally from traditional fire station buildings, where the vehicle halls are fronted by multiple doors with the individual fire engines parked behind these. In Karlsruhe, the fire engines are lined up behind each other and require only one large exit door to set off immediately in formation. When the vehicles return, after dealing with the emergency,

they re-enter the vehicle hall via another door. A second large hall accommodates various workshops and storage areas, thus uniting all the facilities needed to keep the vehicles in good working order.

When the firefighters are not handling emergencies, the new building is designed to provide them and the fire department staff with a pleasant, high-quality environment in their "second home". The upper storeys thus offer not only social spaces, but also sleeping accommodation, a modern communal kitchen and, of course, all necessary sanitary and changing facilities. Provision is even made for various sporting activities while a 3,500 m² planted roof terrace offers ample opportunity for relaxation.

From waterproofing to tile grouting: Sopro system products deliver reliable solutions

On account of their technical performance and visual appeal, ceramic coverings in diverse formats were specified for all the aforementioned functional spaces, sanitary facilities and corridors. Of particular note are the large-format fully vitrified tiles installed in the communal kitchen. All waterproofing and tiling works were performed by Fliesen Röhlich GmbH. Now employing almost 300 qualified tile and natural stone layers, the family business from Wendelstein ranks among Germany's biggest tiling contractors and specializes in the performance of large-scale national projects.

The entire waterproofing and tiling package for Karlsruhe's new main fire station was carried out using Sopro system solutions with time-tested products from the company's trade range. Depending on requirements, either polyurethane-based or cementitious Sopro system products were used in those areas requiring a standards-compliant waterproof membrane below the tile coverings. Everyday use of the communal kitchen, for instance, exposes the wall and floor surfaces to extreme chemical, thermal and mechanical action. Here, Sopro PU-FD 570/571 surface sealant for walls/floors, a two-component polyurethane membrane, guarantees the necessary trouble-free performance. The other wet spaces were treated with proven cementitious products: Sopro DSF 523 one-component flexible sealing slurry and the one-component, dispersion-based Sopro

FD 525/527 flexible sealing compound. Both the large- and small-format fully vitrified stoneware coverings were laid with Sopro's No.1, a highly deformable, S1-grade cementitious, highly polymer-modified flexible tile adhesive (meeting C2 TE S1 requirements to DIN EN 12004). The products specified for finishing the joints – once again depending on requirements – included Sopro DF10 flexible designer tile grout, Sopro FL plus flexible tile grout, Sopro TF+ high-strength tile grout and Sopro FEP, a heavy-duty, two-component epoxy tile grout.

New main fire station, Karlsruhe

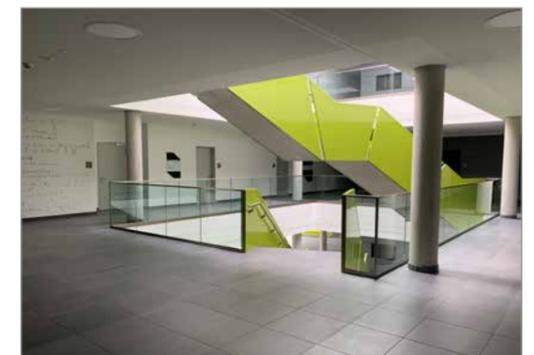
Dabendorf comprehensive school

Project

- » Comprehensive school building with own canteen and catering kitchen, incl. 2 teaching kitchens and 1 bowling alley
- » Waterproofing and tiling works to sanitary facilities, toilets, showers and catering kitchen
- » Scheme costing around € 40 million, with a total of approx. 10,000 m² tile coverings
- » Levelling and tiling works to some 3,000 m² in corridor and stairwell areas

Signboard

Design practice	PLAFOND Gesellschaft für kostenoptimiertes Bauen mbH, Berlin
Applicator	Fliesen Urban, Berlin Berlin Fliesendesign BFD GmbH, Berlin
Client	Schulbau Dabendorf GmbH
Contract volume	10,000 m ² of tile coverings
Completion	July 2021



Products

- Sopro AEB 640 waterproofing and separating membrane with Sopro FDK 415 fixing and waterproofing adhesive
- Sopro NSC 587 self-levelling filler /
- Sopro FS 15 550 floor levelling compound
- Sopro FKM XL 444 multi-purpose eXtraLight flexible tile adhesive
- Sopro Brillant® water-repellent tile grout / Sopro TF+ high-strength tile grout

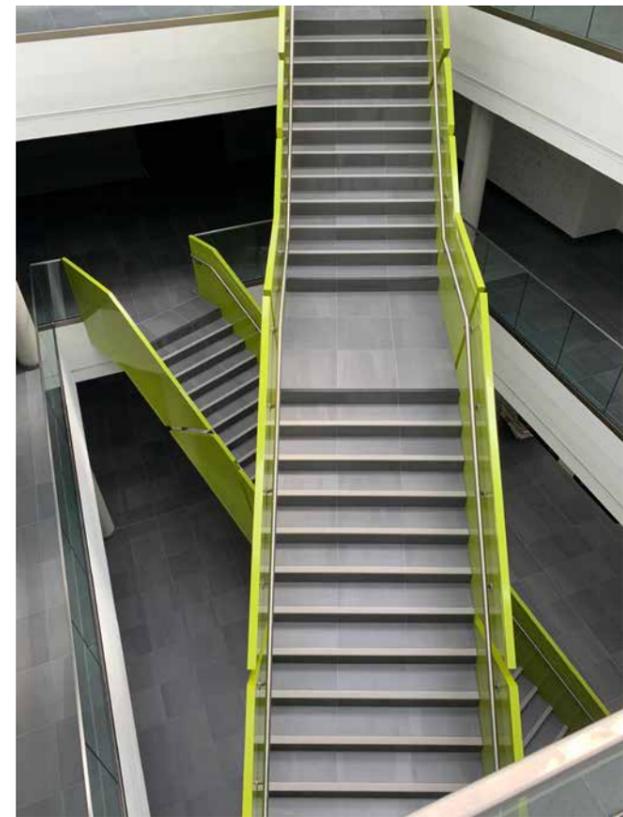


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Dabendorf comprehensive school



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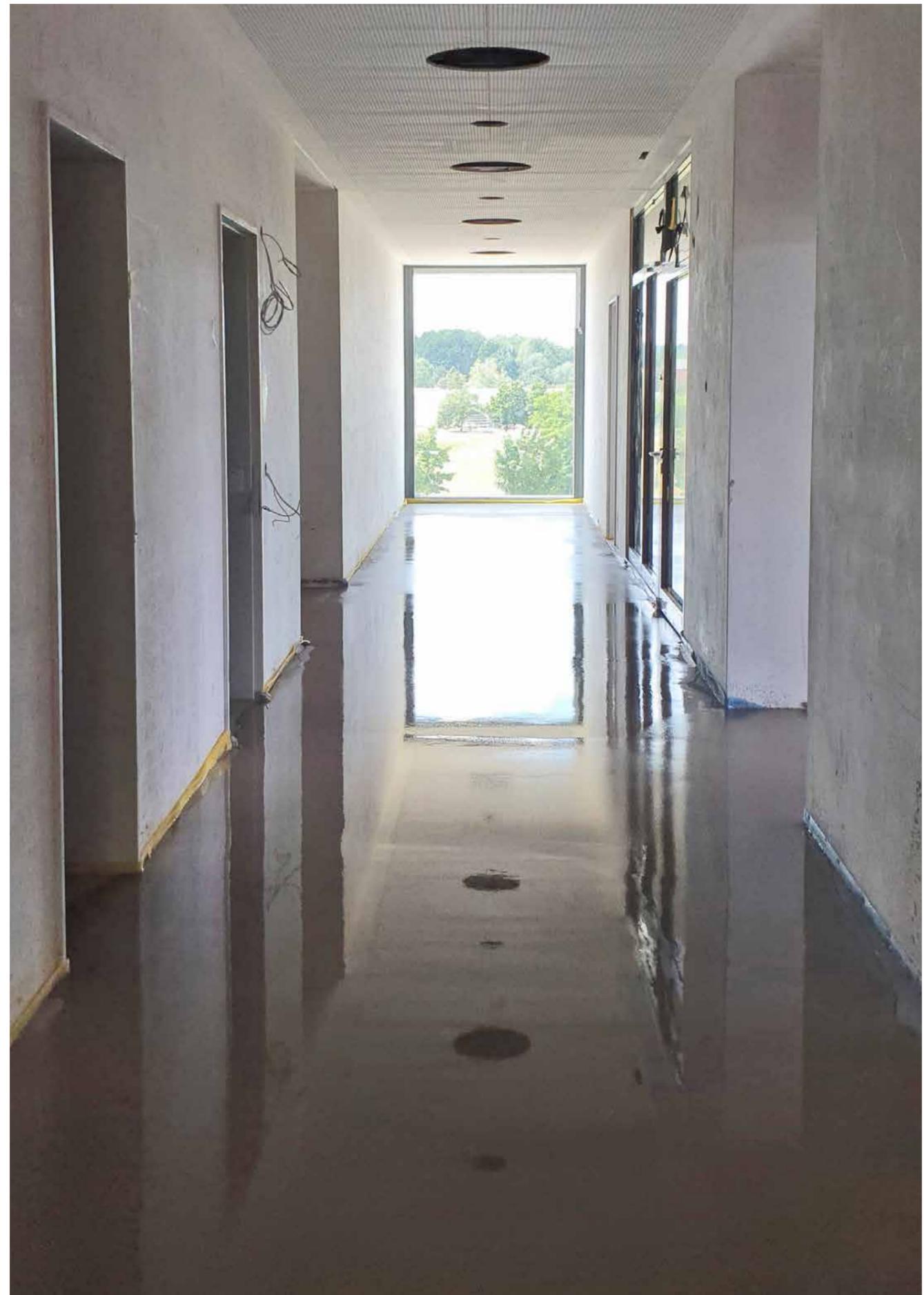


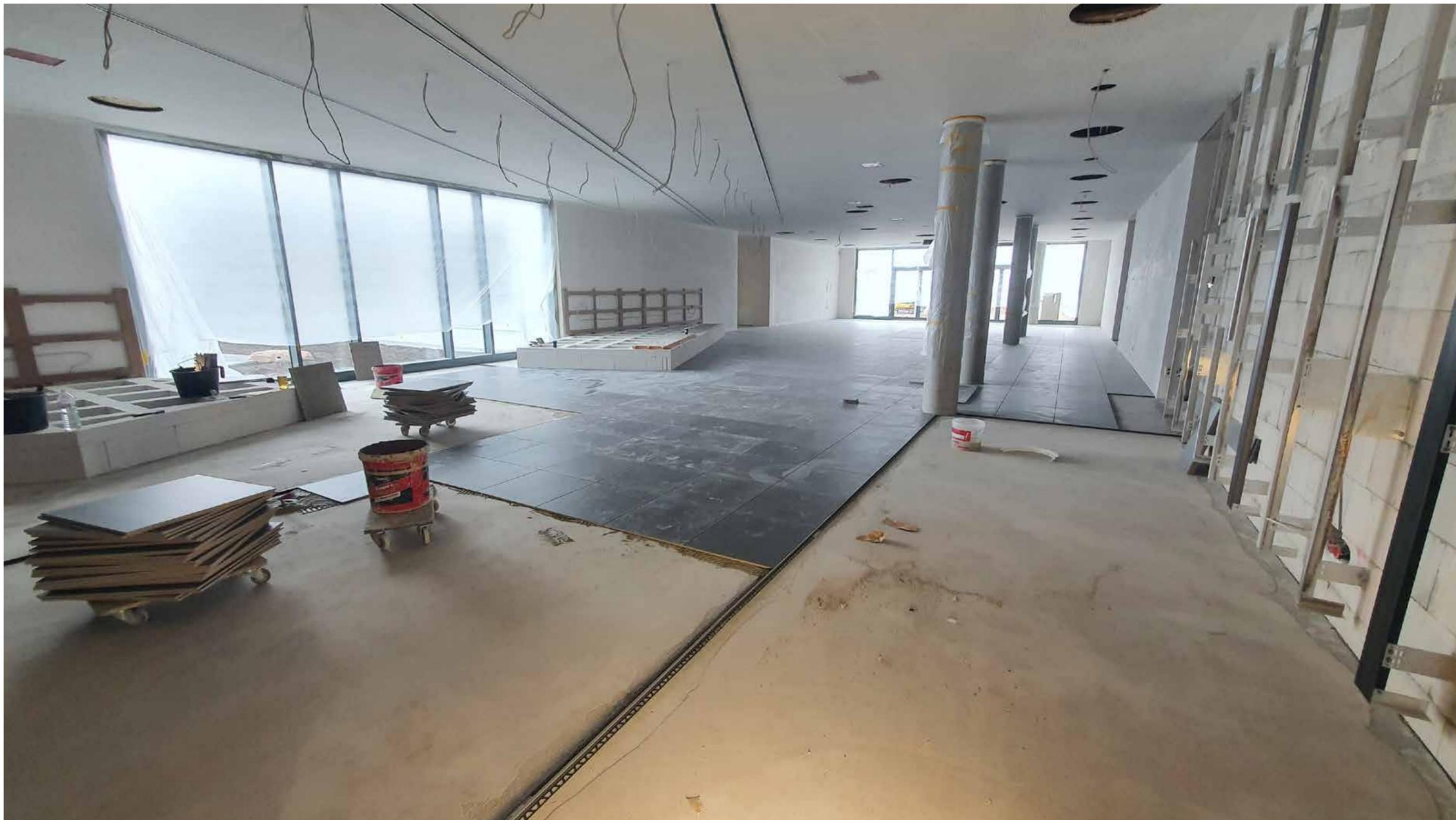
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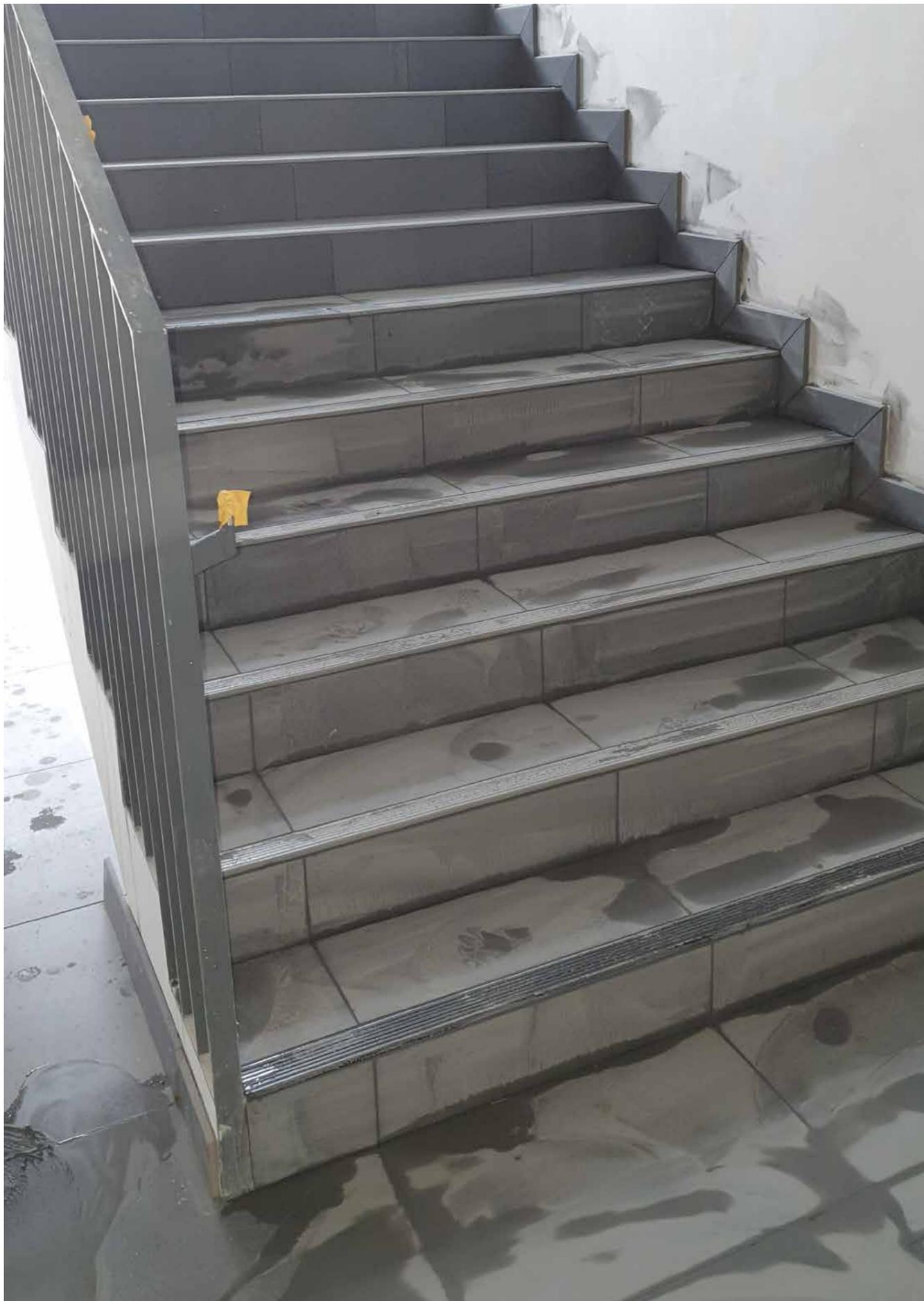
Dabendorf comprehensive school



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Modern school complex for 1,000 students

Sopro system solutions specified for extensive tile-laying package

As one of the biggest schemes to be undertaken by the Federal State of Brandenburg in recent years, a new school development recently completed in the town of Dabendorf in eastern Germany will now accommodate around 1,000 students. Numerous products from Sopro Bauchemie's trade range contributed to the successful project delivery.

Located some 20 kms south of Berlin's city boundary, Dabendorf forms part of the Brandenburg municipality of Zossen. Plans to build a new school complex for the Geschwister-Scholl-Schule had been under discussion for many years. The old school building had been in operation since 1985, having originally been designed for 400 or so students. Yet, the actual number attending the comprehensive school in Dabendorf soon rocketed to 900. This meant that some of the lessons had to be held in temporary teaching accommodation erected in the schoolyard. As refurbishment and extension of the existing school was not considered worthwhile, the decision was taken to build a completely new facility, whose construction commenced in October 2018.

New-build as better alternative

The company appointed to design the new Geschwister-Scholl-Schule complex was PLAFOND Gesellschaft für kostenoptimiertes Bauen mbH. On its website, the Berlin-based design practice points to its "25-year track record in the design and implementation of numerous development projects in a wide range of sectors – residential, administrative, commercial, industrial, education, research, sports, leisure, nursing and related care, child and youth care". PLAFOND Gesellschaft für kostenoptimiertes Bauen mbH describes its scheme for the new comprehensive school in Dabendorf as follows: "The Geschwister-Scholl-Schule" is a building ensemble comprising two L-shaped volumes: a two-storey block facing the campus entrance on Königsgraben and a three-storey section attached at the rear. These two blocks frame a narrow yard which serves as the arrival point and meeting place for students in the morning. A generously sized entrance leads into the school foyer, which doubles up as a break-time recreation hall, with an open stairway

linking the storeys. A transparently designed library that opens off the entrance lobby creates visual links with the outdoor spaces and affords arriving students views of the schoolyard on the opposite side of the building. The teaching areas are arranged by function in distinct sections. A colour scheme allocating different colours to the different sections serves to improve legibility. These colours then feature in the flooring, wall graphics and seating units.

Dependable tiling workmanship with Sopro system products

On account of their technical performance and visual appeal, tile coverings in various formats and colours were specified for large parts of the new school complex, including the catering kitchen, two teaching kitchens, corridors and stairwells along with the shower, sanitary and toilet facilities. Given the size of the tiling package, embracing an area of some 10,000 m², two tiling contractors were appointed. One of these was Fliesen Urban GmbH, a Berlin-based company with a 20-year-plus track record and an expert, motivated team. The other, Fliesendesign BFD GmbH, with an approx. 50-strong staff of tile and natural stone layers, has in recent years evolved into one of the sector's biggest companies in the Berlin and Brandenburg area. For the Dabendorf contract, both companies opted for the use of Sopro system products and were thus able to draw on the continual support of Sopro's Project Consulting and regional management teams.

The first step towards ensuring the reliable installation of a tile covering in the corridor and stairwell areas involved the creation of smooth, unbroken substrates. This was achieved through the use of two rapid-set, self-levelling products: Sopro NSC 587 self-levelling filler and Sopro FS 15 550 floor-levelling compound with its excellent flow properties. The tiles in these areas were bonded with Sopro SC 808, a highly sag-resistant, cementitious flexible tile adhesive, and Sopro FKM XL 444 multi-purpose eXtraLight flexible tile adhesive.

Wherever required under German standards, e.g. for the shower, sanitary and toilet spaces, the surfaces were additionally waterproofed. Sopro DSF 523, a flexible, liquid-applied, one-component, mineral sealing slurry, was used for some of the membranes here. Sopro AEB 640, a

chemically resistant, thin-sheet, crack-bridging, waterproofing and separating membrane, was installed in the kitchen areas. It was properly bonded with Sopro FDK 415, a fixing and waterproofing adhesive especially suited for this purpose. Sopro FKM XL 444 was again selected for fixing the wall and floor tiles in the waterproofed areas. The product used to finish the joints in the kitchen coverings was Sopro FEP, a heavy-duty, two-component epoxy tile grout that is particularly resistant to the high chemical and mechanical loads occurring in such areas. Other proven Sopro products, e.g. Sopro Brillant® water-repellent tile grout or Sopro TF+ high-strength tile grout, were specified for the other spaces.

SC Freiburg stadium, Freiburg im Breisgau

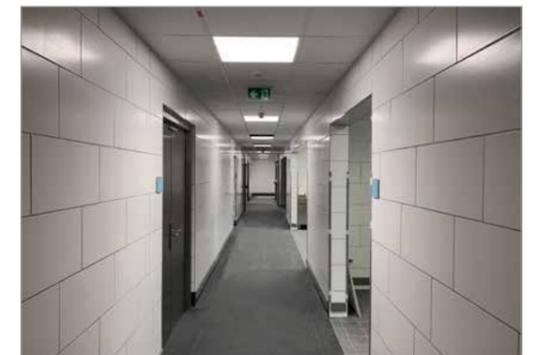
Project

- » New 34,700-capacity football stadium
- » Use of Sopro system solutions for all waterproofing and tiling works in main building's restaurant/kitchen areas and sanitary facilities



Signboard

Applicator	B&B Fliesen und Naturstein, Freiburg
General contractor	Köster GmbH, Osnabrück
Architect	HPP Architekten, Düsseldorf
Contract volume	4,000 m ² of tile coverings
Completion	August 2021



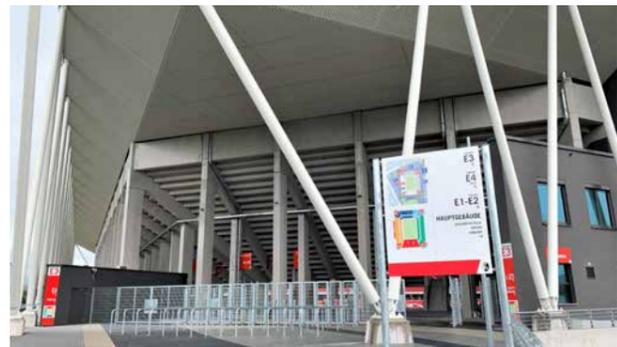
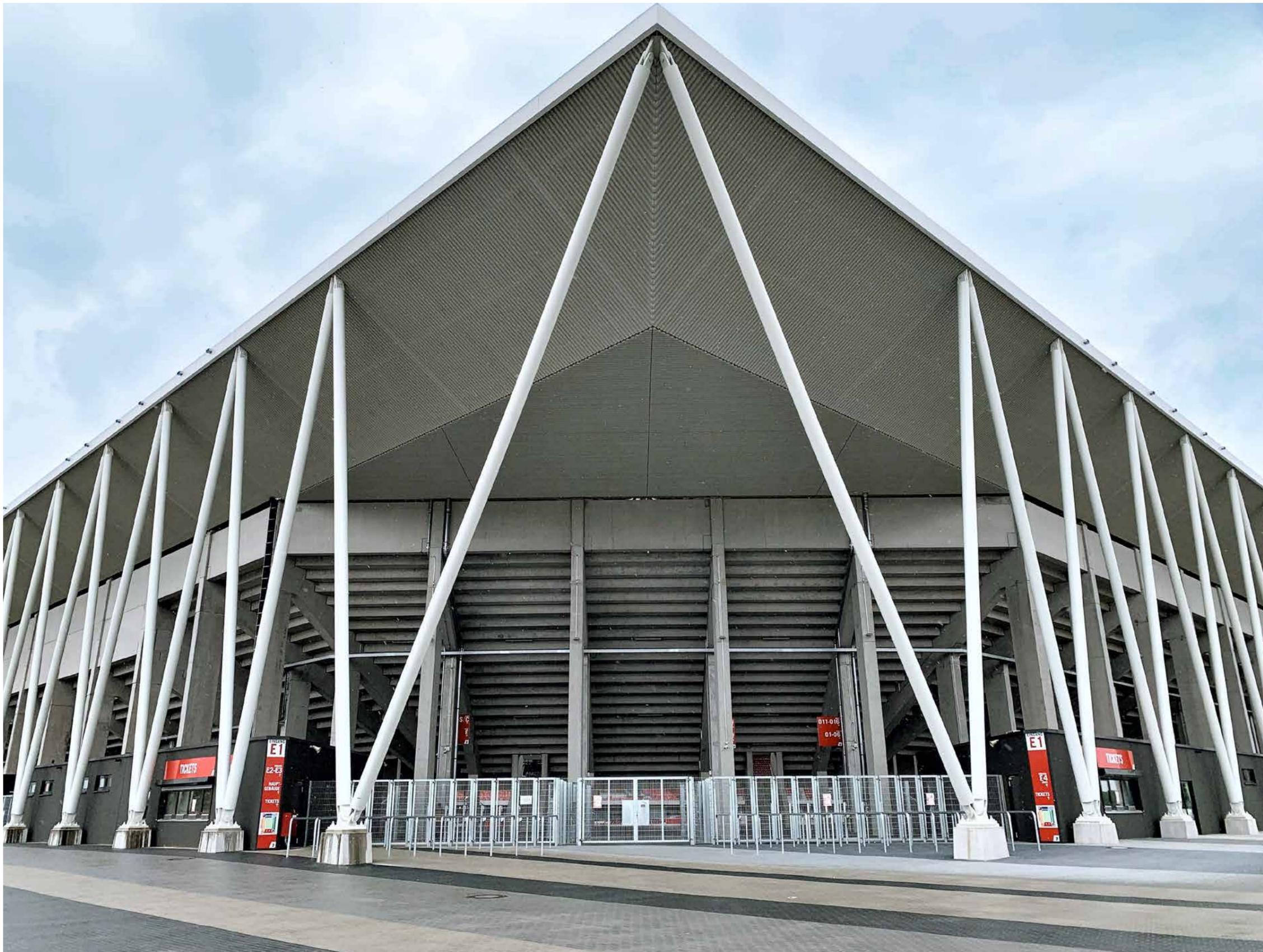
Products

- Sopro DSF 523 one-component flexible sealing slurry
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro PU-FD 570/571 surface sealant for walls/floors
- Sopro EPG 522 epoxy primer
- Sopro FEP epoxy tile grout
- Sopro DBE 500 epoxy tile adhesive
- Sopro VF 413 VarioFlex® tile adhesive
- Sopro FF 450 flexible tile adhesive
- Sopro TF+ high-strength tile grout
- Sopro FL plus flexible tile grout





SC Freiburg stadium, Freiburg im Breisgau



COMPLETED



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SC Freiburg stadium, Freiburg

New home for popular Bundesliga club from “Badner Land”

Sopro system solutions specified for extensive tile-laying package

A new, modern football stadium has recently been completed on a site in the west of the Black Forest city of Freiburg in south-west Germany. It will now host the home matches of SC Freiburg, generally regarded as the Bundesliga’s most likeable club. Wide-ranging Sopro system products were used for the extensive tiling works in the restaurant, kitchen and sanitary areas of the main building.

Up to now, SC Freiburg’s home ground has been the 24,000-capacity Dreisamstadion, inaugurated in 1954. However, many aspects of the existing facility neither meet the requirements placed on a modern sports venue, nor comply with the stadium regulations issued by the German Football League (DFL). Key inadequacies include an overly short pitch, obstructed sightlines and the lack of a VIP suite. Its continued use in recent years was subject to special permission from the DFL. A remodelling of the Dreisamstadion or construction of a new stadium has therefore long been the subject of debate. In the end, the decision was taken to build a completely new stadium.

A stadium for the fans

Planning permission for a new stadium by the Wolfswinkel close to the airfield in Freiburg’s Brühl district was granted in November 2018. It was designed by HPP Architekten GmbH, a nationally and internationally operating German architectural practice headquartered in Düsseldorf. As stated on its website, the design team aimed to create “a structure with a clear and timeless elegance that blends gently into the landscape”. Featuring a perimeter row of diagonal tension columns to support the roof, the exterior of the new stadium is a veritable eye-catcher. Inside, it impresses by its compactness, steeply raked stands and proximity to the match action. It was also important for the architecture to express the club’s identity and, above all, convey an intense footballing experience from all angles. The stands are therefore arranged to offer a full-capacity crowd of 34,700 spectators an excellent view of the pitch from all parts of the stadium. This and many other features have helped to meet the club’s brief for a “stadium for the fans”. The powerhouse of atmosphere and emotion will

be the “Südtribüne”, the terrace on the southern side, from where 8,000 standing SC fans can cheer on the home team. Apart from hosting Bundesliga games, Freiburg’s new stadium will double up as a venue for many other sporting and non-sporting events. The prestigious VIP suite in the main building is thus complemented by a range of business, conference and events facilities that can be independently operated both during and outside of the football matches.

High-performance waterproofing and tiling with Sopro system solutions

Alongside pitch and stands, SC Freiburg’s new, still-to-be-christened stadium includes numerous functional facilities – from changing rooms, sanitary accommodation, restaurant and kitchen areas to the club’s administrative offices. Here, some 4,000 m² of variously sized tiles, including contemporary large formats, were laid by Freiburg-based B&B Fliesen und Naturstein, a master craftsman contractor set up in 2005. With a staff comprising 28 craftspersons and four commercial employees, B&B sees itself as well-equipped to tackle both large- and small-scale contracts, even at short notice. To deliver best results in performing the extensive waterproofing and tile-laying works in the restaurant, kitchen and sanitary areas of the main building, the contractor opted for the exclusive use of Sopro system solutions. Both B&B Fliesen und Naturstein and Köster GmbH – the general contractor from Osnabrück entrusted with this major project – were able to draw on the expert support of Sopro’s Project Consulting and regional management teams.

Standards-compliant waterproof membranes were installed in the moisture-exposed areas using both cementitious products – e.g. Sopro DSF 523 one-component and Sopro TDS 823 two-component sealing slurries – and reaction resin-based materials such as Sopro PU-FD 570/571 surface sealant for walls/floors. The system products used to fix the tiles ranged from the two-component Sopro DBE 500 epoxy tile adhesive to the cementitious Sopro FF 450 and Sopro VF XL 413 VarioFlex® flexible tile adhesives. A similar variety of system products, such as Sopro FEP epoxy tile grout, Sopro TF+ high-strength tile grout and Sopro FL flexible tile grout, were chosen, depending on the required duty, to finish the joints in the tile coverings.

SC Freiburg stadium, Freiburg im Breisgau

Office &
residential buildings

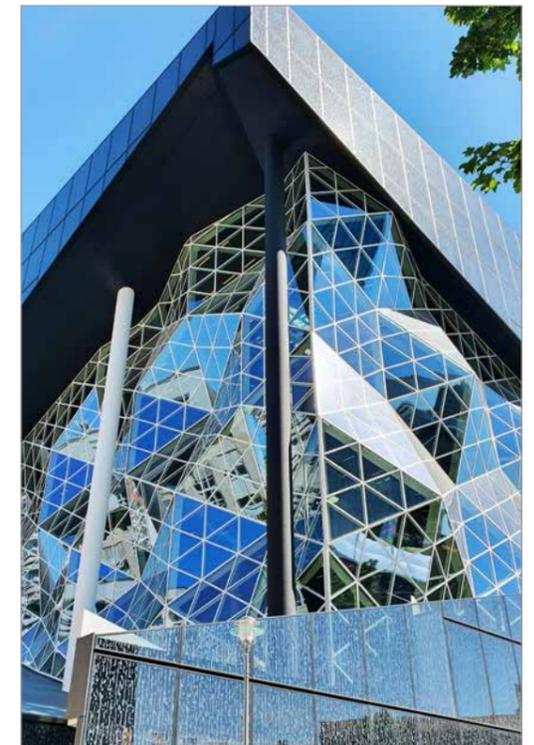
New Axel Springer building, Berlin

Project

- » Architectural tour de force for media and technology company's new building
- » Total floor area of 52,000 m² accommodating over 3,000 workplaces
- » Located opposite Axel Springer's golden publishing tower
- » DGNB (German Sustainable Building Council) gold certification
- » High-spec tiling works to all sanitary facilities, corridors and kitchen
- » Separating layer installed on hollow floors

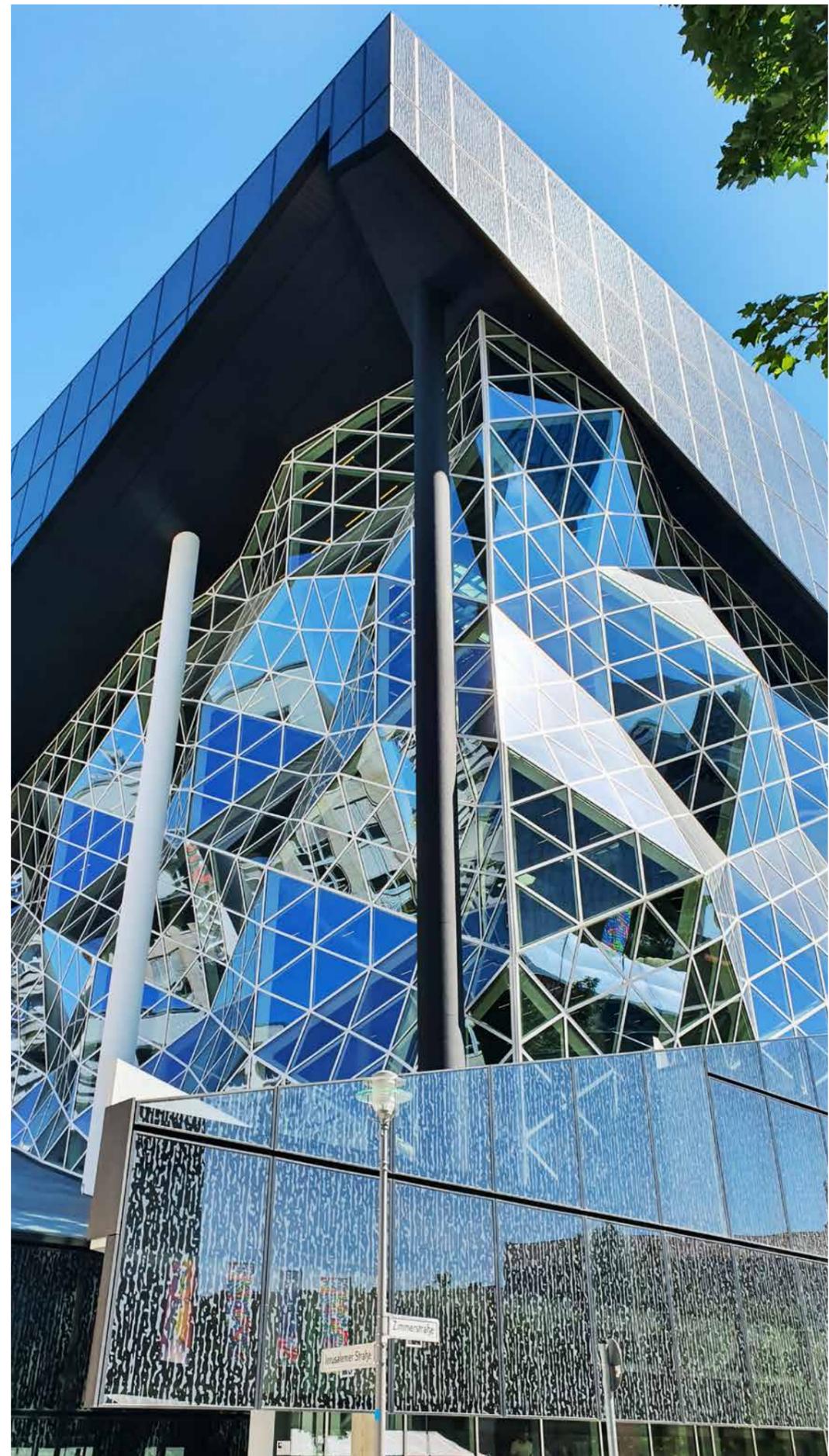
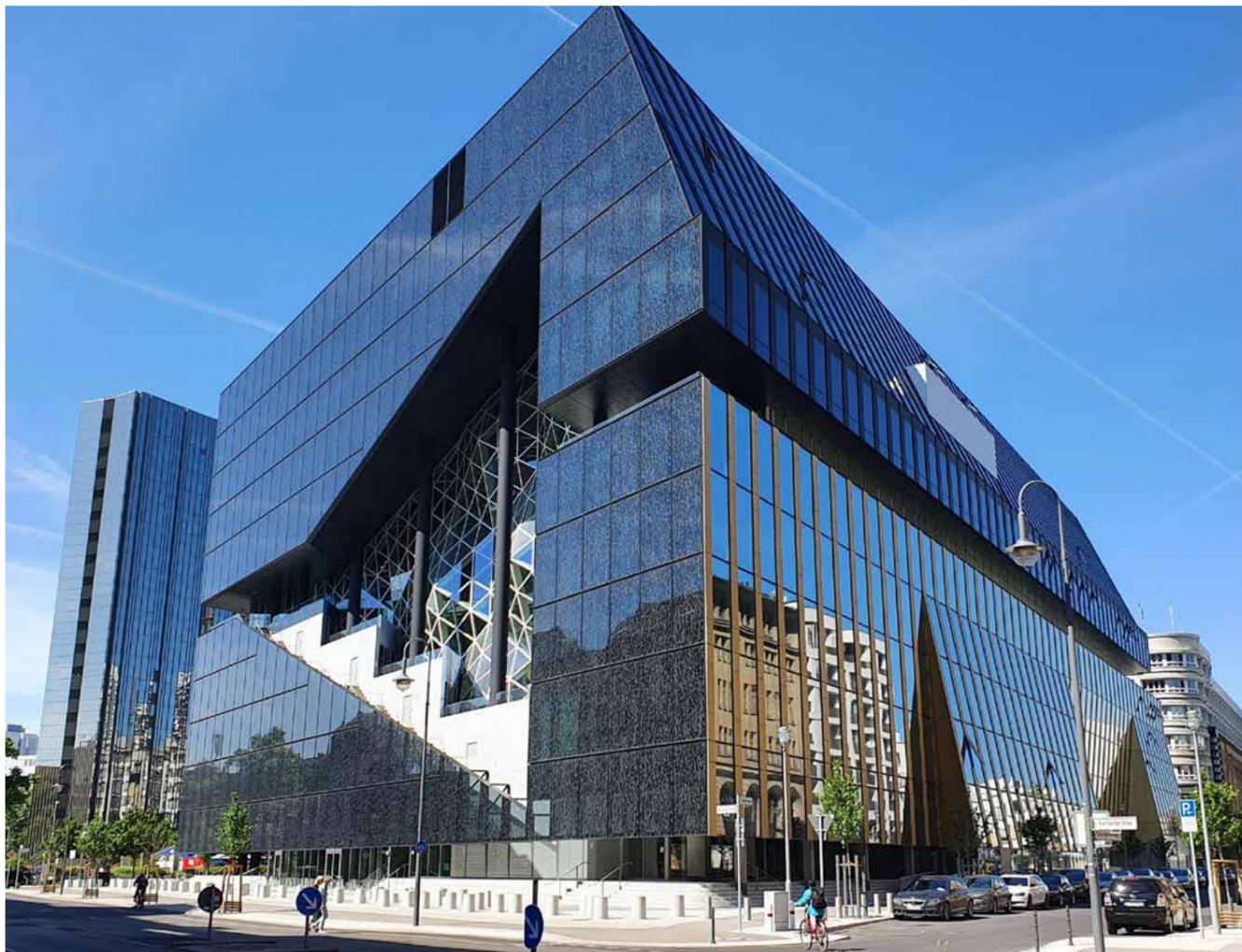
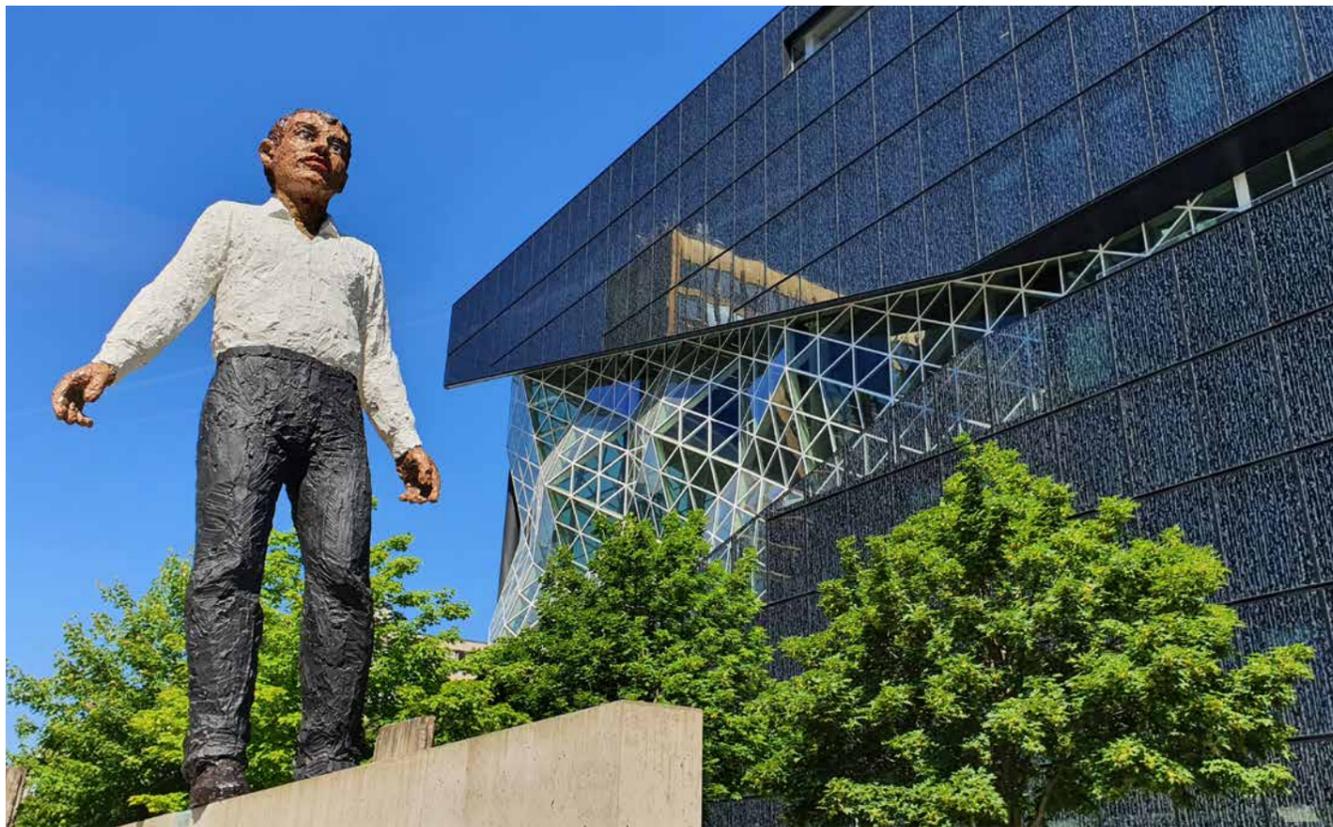
Signboard

Design practice	Office for Metropolitan Architecture, Rotterdam, Netherlands KEC Planungsgesellschaft, Berlin
Applicator	Fliesendesign BFD GmbH, Berlin
Client	Client: Axel Springer SE
General contractor	Ed. Züblin AG
Contract volume	Toilets, corridors and kitchen
Completion	December 2019



Products

- Sopro DSF 523 one-component flexible sealing slurry
- Sopro FDF 525/527 flexible sealing compound
- Sopro AEB 640 waterproofing and separating membrane
- Sopro FF 450 flexible tile adhesive
- Sopro FKM XL 444 multi-purpose eXtraLight flexible tile adhesive



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New Axel Springer building, Berlin

New Axel Springer building, Berlin

Delightful new working environment

Impressive new office development in Berlin's Mitte district

Axel Springer's new, iconic building in Berlin stands as a symbol for the future direction of the Group as a whole and for the future way of working in the world of digital media. The use of tried-and-tested Sopro system products played a prominent role in the designers' architectural and sustainability concept. They make a key contribution, in all tiling works, in meeting the stringent technical and sustainability-related demands placed on the scheme and in achieving DGNB (German Sustainable Building Council) gold certification.

Designed by eminent Dutch architect Rem Koolhaas and his Office for Metropolitan Architecture (OMA), the breathtaking new Axel Springer building in Berlin is without any doubt an architectural masterpiece.

A symbol for a media paradigm shift and collaboration

Completed at the end of 2020, the imposing new office building in Berlin's Mitte district offers a total floorspace of 52,000 m² spread over 13 storeys with over 3,000 work points, including newsrooms, TV studios and a roof garden. The new Axel Springer building represents an addition to the so-called "Axel-Springer Kiez", the company's campus at the heart of Berlin's one-time newspaper district. The existing Axel-Springer-Haus remains the headquarters. The new facility's location – directly opposite the golden publishing tower, which is still in use – clearly expresses the media and technology company's commitment to the German capital. In his futuristic scheme, Dutch architect Rem Koolhaas highlighted the former border between east and west as a key design element. The building, which lies close to Checkpoint Charlie, is split into two sections. The entire complex is positioned on the former border strip, with the atrium between the two blocks standing only as a symbol for the line of the Berlin Wall. The two building halves are linked by a transparent bridge that likewise cuts diagonally through the light-flooded atrium.

Sopro products for sustainable construction

Revelling in an atmosphere of transparency, creativity and interaction, the spectacular new office building symbolizes "the future of work". Yet, its visual impact is not the scheme's only merit: it has also been awarded a DGNB (German Sustainable Building Council) gold certificate for sustainability. Although most of the measures required for certification remain invisible to users, they are no less perceptible, e.g. through the pleasant indoor environmental conditions and contaminant-free air quality.

Both the avant-garde building's stunning appearance and impressive sustainability credentials – not to mention the success in mastering the tough challenges posed by the tight construction window and inner-city location – testify to the contributions of the many different trades involved in the construction process. Among them was Berlin Fliesendesign BFD GmbH, one of the biggest and best-performing tiling contractors in Berlin and Brandenburg. For installation of the tile coverings in all sanitary facilities, corridors and kitchens, the tiling specialist opted for the use of reliable, time-tested Sopro products and systems. Sopro's product range also played an important role in obtaining DGNB gold certification: for example, waterproofing products such as the one-component dispersion-based Sopro FDF 525/527 flexible sealing compound or Sopro AEB 640 waterproofing and separating membrane as well as the cementitious flexible tile adhesives Sopro FKM XL 444 and Sopro FF 450 achieve the highest rating under the DGNB scheme (quality level 4, Line 9, based on the criterion "ENV1.2 Local Environmental Impact", 2018 version). This also underlines the integral approach adopted for the new Axel Springer building, covering the many different aspects of sustainable construction. With their very-low-emission and low-odour properties (EC1^{PLUS} rating under GEV's Emicode system), Sopro products contribute to a pleasant, low-contaminant working environment.

Given the building's high frequentation, with over 3,000 work points and certain areas open to the general public, the corridors and sanitary facilities are heavily used. For the finishings to these spaces,

mainly comprising large-format ceramic wall and floor tiles, criteria such as robustness, loadability, durability and a reliable manufacturer support service were therefore crucial. Here too, the high quality and reliability of Sopro products have paid dividends. They were also used to develop sound solutions to special demands placed on the tiling works by particular wall and floor systems, such as raised access and hollow floors or pre-wall installations. Although the short construction time and inner-city location imposed stiff constraints on contractor Berlin Fliesendesign BFD GmbH, all logistical challenges were supremely mastered.

Liebigstraße residential complex, Langen

Project

- » New, large-scale residential complex
- » Facade featuring combination of V&B fully vitrified stoneware units and painted render
- » External thermal insulation composite system sealed off with Sopro TDS 823 barrier coat prior to tiling
- » Tiles fixed with highly flexible Sopro bedding adhesives



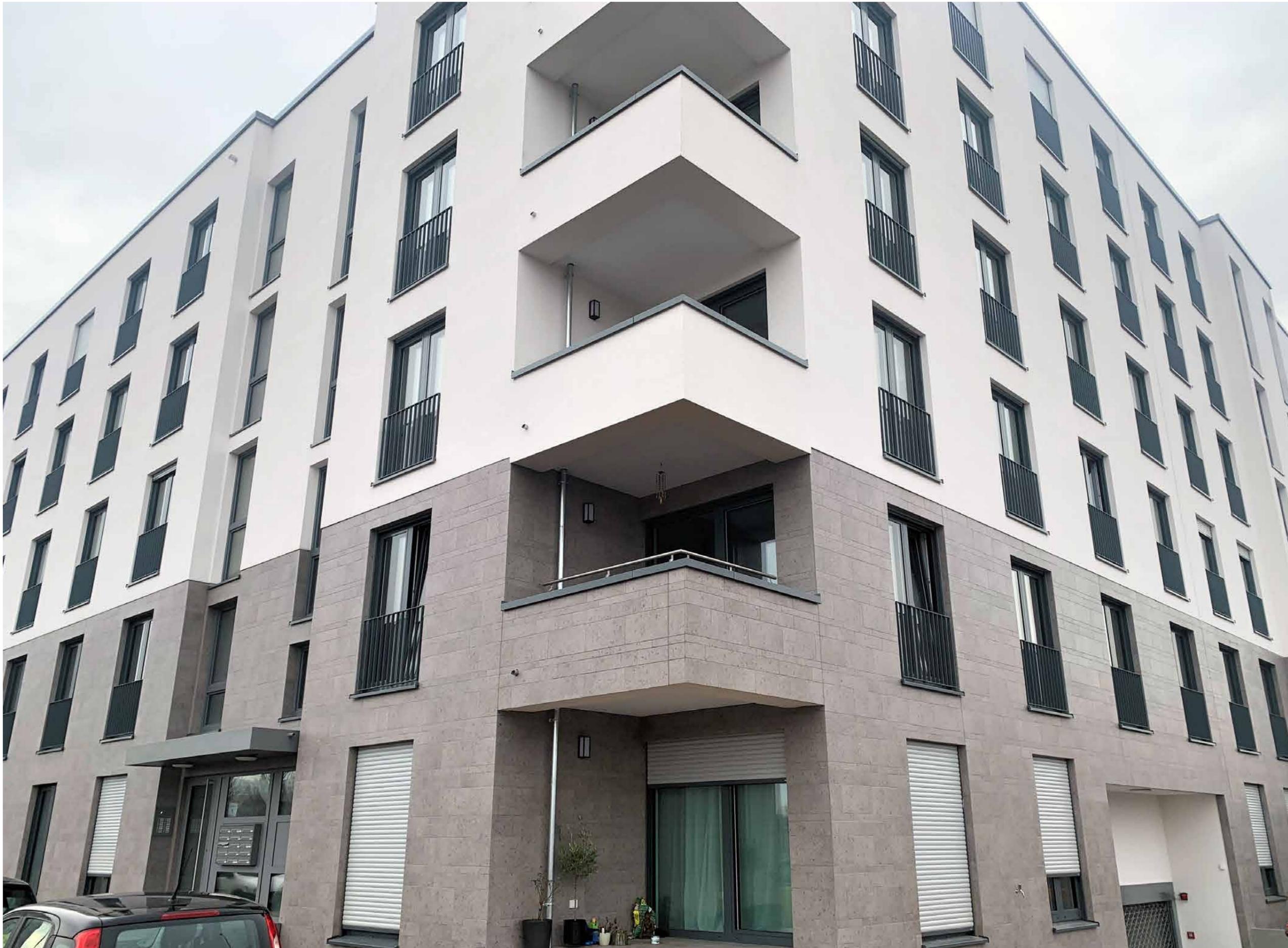
Signboard

Client	Walldorfer Wohnbaugesellschaft mbH, Langen
Applicator	AZ Fliesen, Hanau
Merchant	Gebrüder Graulich GmbH & Co. KG, Flörsheim
Tile manufacturer	V&B Fliesen, Merzig
Contract volume	Approx. 2,000 m ²
Completion	May 2021



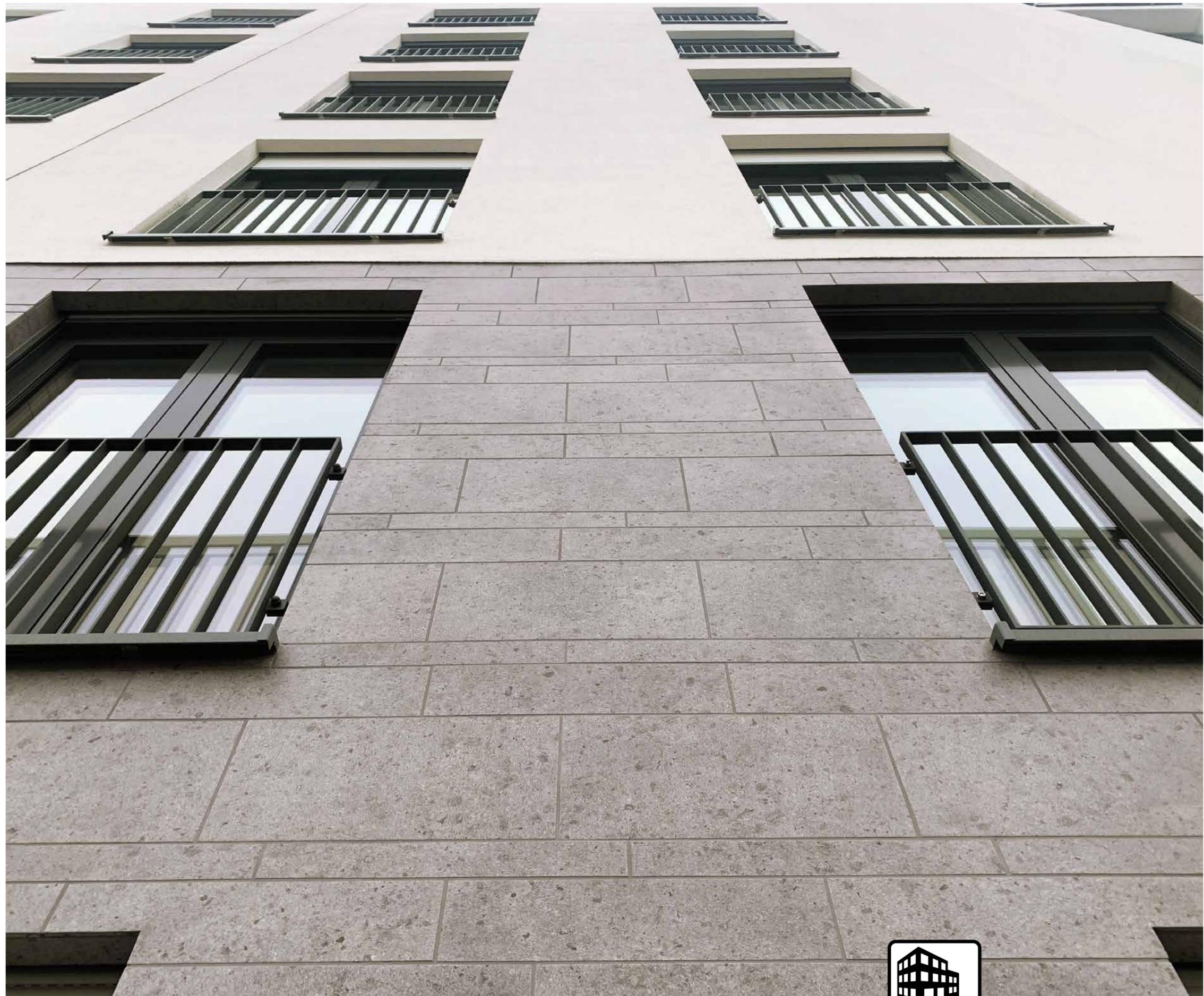
Products

- Sopro GD 749 primer
- Sopro TDS 823 two-component turbo sealing slurry
- Sopro's No.1 flexible tile adhesive (order no. 400)
- Sopro FD 447 flexibilizing dispersion
- Sopro MEG 667 megaFlex TX highly flexible tile adhesive
- Sopro FL plus flexible tile grout



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Liebigstraße residential complex, Langen



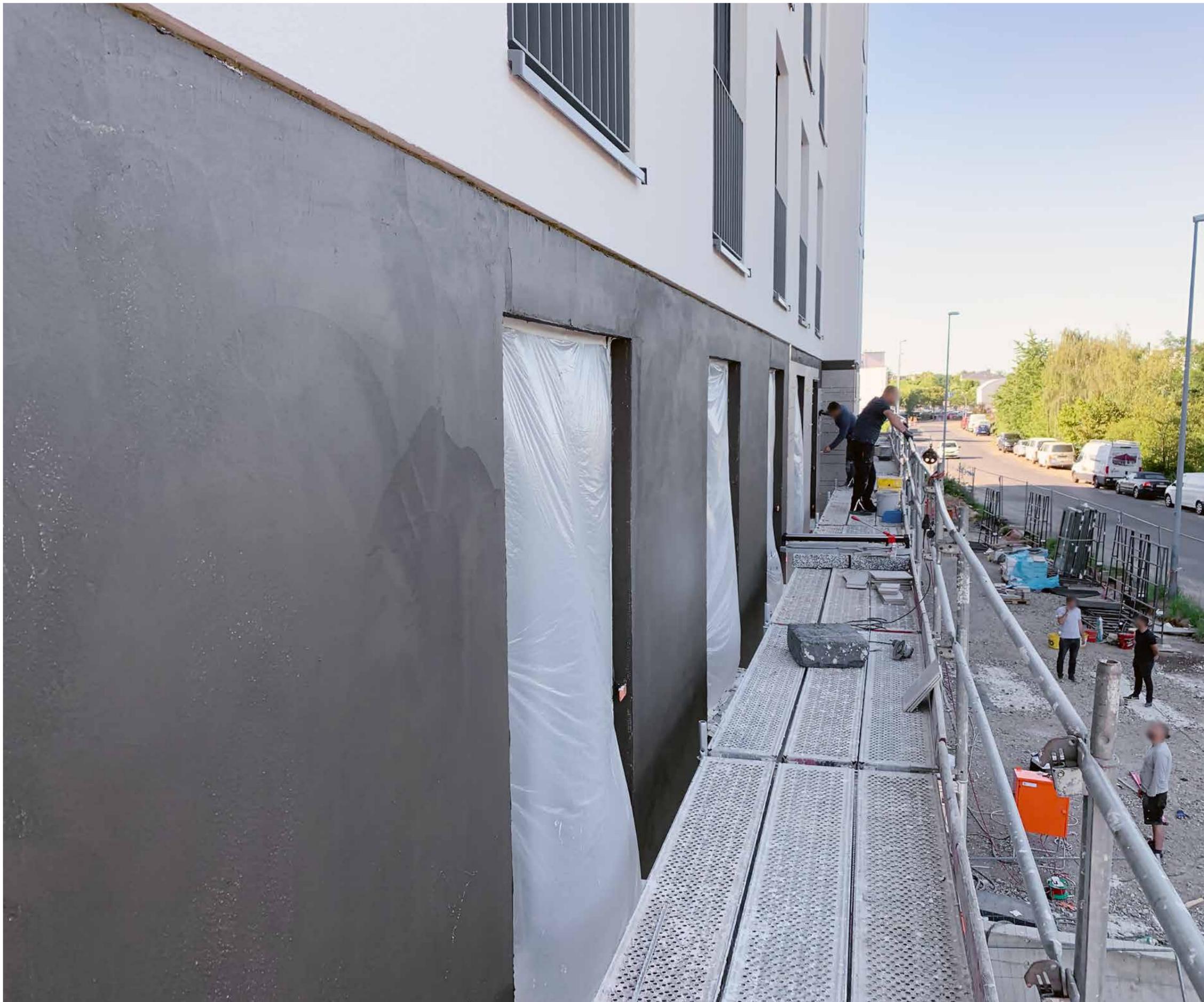
COMPLETED

Liebigstraße residential complex, Langen



CONSTRUCTION
P H A S E

Liebigstraße residential complex, Langen



CONSTRUCTION
P H A S E



Liebigstraße residential complex, Langen

Composite ceramic facade combining energy efficiency with aesthetic appeal

Sopro products vouch for trouble-free installation

The facade design for a multi-storey residential complex in Langen in the German Federal State of Hesse features an attractive mix of ceramics and render. Installation of the fully vitrified stoneware tiles manufactured by Villeroy & Boch on an external thermal insulation composite system (ETICS) involved the use of tailored products from Sopro Bauchemie's trade range.

The Liebigstraße residential estate is a sizeable housing development currently under construction in the Hessian town of Langen between Darmstadt and Frankfurt/Main, with a population of just under 40,000. Alongside several large apartment buildings, the charming new urban quarter will include a hotel and shopping centre. Various superstores, service outlets and restaurants are also planned.

Benefits offered by ceramic facades

The Liebigstraße residential buildings comply with up-to-the-minute standards and practice – not only in terms of their aesthetic design, but above all with regard to energy efficiency. The street frontage of a multi-storey housing complex completed in May 2021 duly incorporates an external thermal insulation composite system (ETICS), albeit with two different finishes: a white render for the upper storeys and a ceramic covering, fixed to the thermal insulation layer, on the two lower floors. This brings obvious technical advantages given that ceramic tiles meet practically all demands placed on the ideal building envelope. They are long-lasting, non-combustible, frost-resistant, colour- and light-fast, easy to clean and energy-efficient. Moreover, they are made from natural raw materials and can be recycled. As an added benefit, their availability in a wide variety of sizes, colours and surface finishes offers designers and clients enormous creative scope.

High requirements placed on tile-laying products

The project in Langen involved the use of Villeroy & Boch (V&B) fully vitrified stoneware tiles in diverse sizes as the facade cladding material. In addition to the necessary workmanship skills, their application to the previously installed ETICS necessitated the use of purpose-designed tile-laying materials. Here, the project team opted for the use of products from Sopro Bauchemie's trade range – the individual selection process being based on detailed consultations between the experts of V&B and Sopro. The key requirement placed on the tiling products was the achievement of a highly reliable, weatherproof adhesive bond between the fully vitrified stoneware tiles and the substrate.

Prior to installing the tiles, Sopro TDS 823, a high-performance, two-component sealing slurry, was applied as a barrier coat to protect the ETICS against moisture infiltration. This vapour-permeable, fibre-reinforced, mineral product offering low-temperature flexibility is used to install crack-bridging waterproof membranes. The product used for reliable installation of the fully vitrified stoneware tiles was Sopro MEG 667, a highly flexible, sag-resistant, two-component, cementitious tile adhesive (meeting C2 FTE S2 requirements to DIN EN 12004). The stress-relieving effect of the mortar matrix and the product's high, long-term frost resistance due to its very low water absorption make it ideal for bonding applications outdoors and on facades. The ceramic coverings were grouted with another system product, Sopro FL plus, a flexible, frost-resistant tile grout for both wide and narrow joints, indoors and outdoors. Its lime-film-free finish ensures a brilliantly coloured joint pattern with lasting appeal. Moreover, the inherent water-beading effect and Hydrodur® technology vouch for water- and dirt-repellent joint surfaces.

Arcadia Stern, Düsseldorf

Project

- » New, 11-storey office building as extension of Arcadia Parc development
- » Natural stone finishes to stairwells, lifts, lift lobbies, toilets and window sills
- » Special epoxy resin adhesive used for installation in lifts
- » Light-coloured, rapid-set Sopro thin-bed adhesive used to fix natural stone window sills

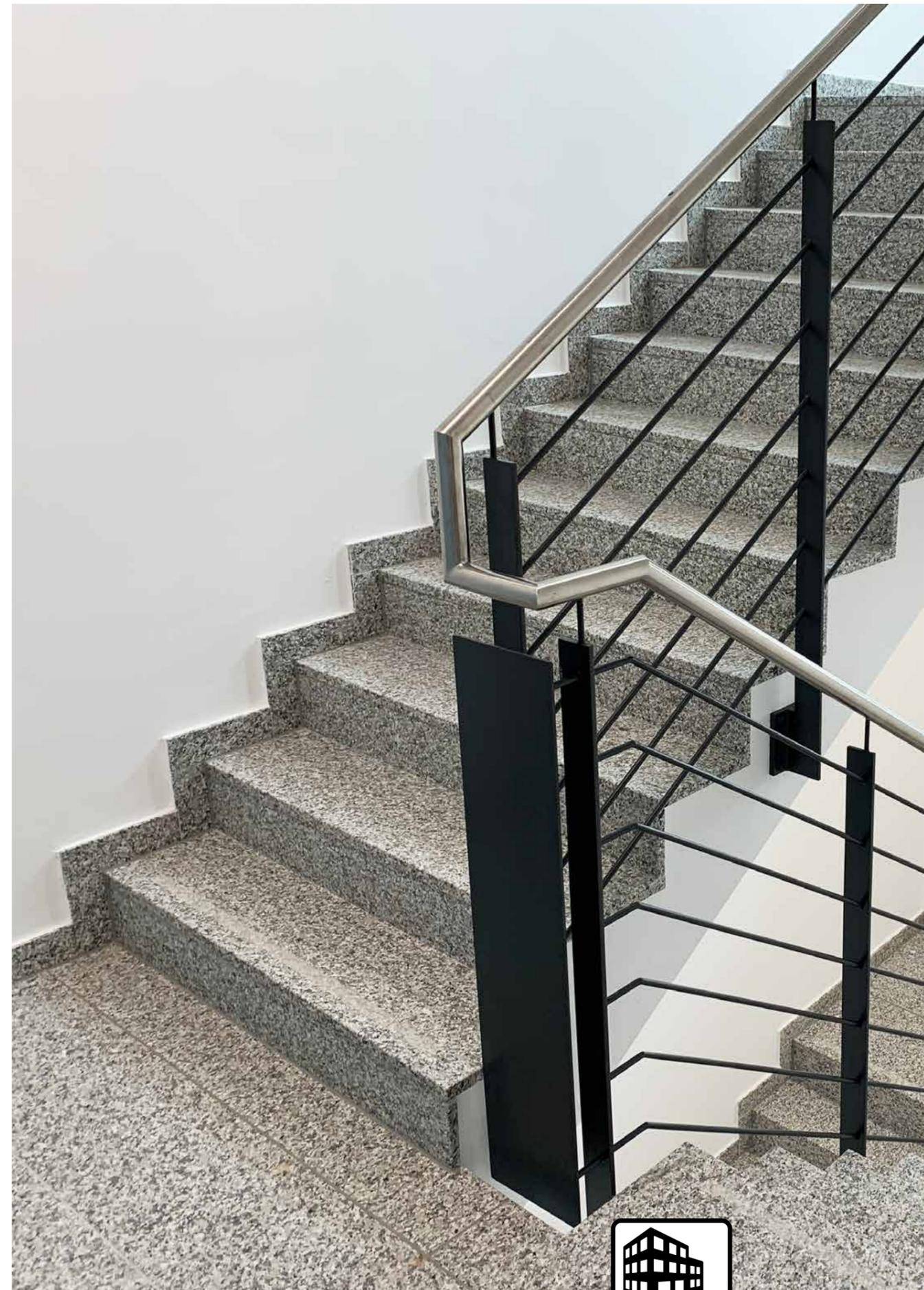
Signboard

Applicator	Steinmanufaktur Puzicha, Essen
Client	Brune Real Estate AG & Co. KG, Düsseldorf
General contractor	Rotterdam Bau GmbH, Langenfeld
Contract volume	Approx. 1,500 m ² of tile and natural stone coverings
Completion	December 2020



Products

- Sopro GD 749 primer
- Sopro RAM 3 454 renovation and levelling mortar
- Sopro FDF 525/527 flexible sealing compound
- Sopro DSF 523 one-component flexible sealing slurry
- Sopro GH 564 casting resin
- Sopro's No.1 Silver flexible tile adhesive (order no. 403)



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Arcadia Stern, Düsseldorf

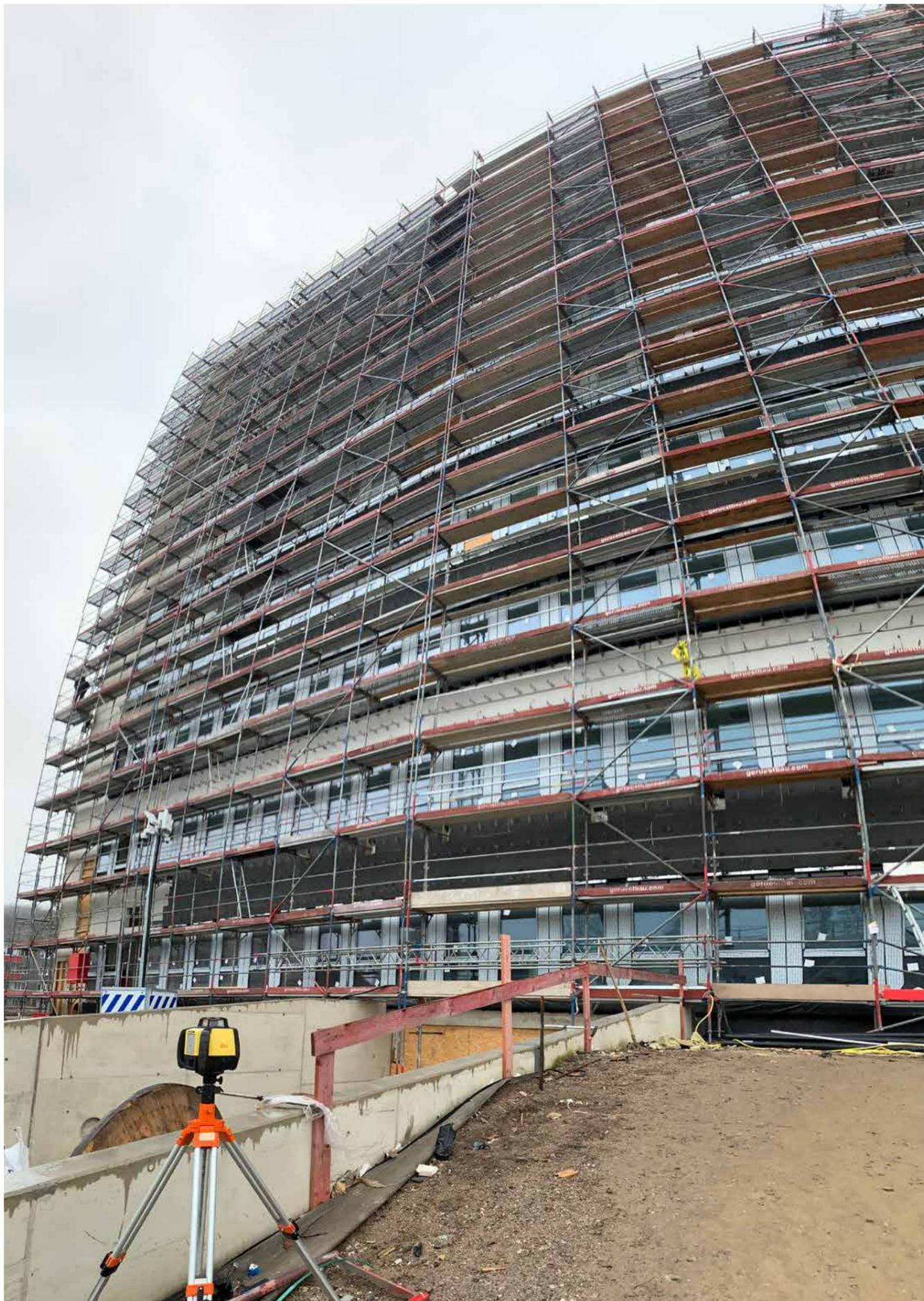


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Arcadia Stern, Düsseldorf



CONSTRUCTION
P H A S E

Exclusive office spaces with stunning views

Natural stone coverings as key design feature

The concept for the Arcadia Stern, a modern, 11-storey office building in Düsseldorf's Rath district, provided for the generous use of natural stone finishes as a central design element, for example in the stairwells, lifts and lift lobbies. Tailored products from Sopro's trade range were specified to ensure good-practice installation of these coverings.

The imposing Arcadia Stern office building, which occupies a prominent location in the north of Düsseldorf, constitutes a new addition to the Arcadia Parc office and service centre. Completed in 2020, the new block directly adjoins the 16-year-old complex and, through its semi-circular massing, emulates the curvilinear forms of the existing development. The office high-rise has 11 above-ground storeys providing some 11,500 m² of ultramodern, flexible office space that is easily adaptable to individual space planning concepts – e.g. cellular and team office layouts, open-plan arrangements or spacious meeting and conference zones. This is complemented by an approx. 220-space basement car park. Structurally, the building comprises a reinforced-concrete frame with heavily constructed stair cores and two sanitary areas per storey. As with the previously completed parts of the development, the design team at Brune Real Estate AG & Co. KG set out to combine a modern, highly appealing architectural scheme with a fit-for-future, sustainability-driven energy concept.

Dependable stone laying workmanship using Sopro system products

Among the most striking design features in the new office high-rise are the natural stone coverings, which feature prominently in heavily frequented areas, such as the stairwells, lifts and lift lobbies, and even on the window sills. Granite coverings were widely specified as the ideal solution for these areas on account of their hardness, abrasion and chemical resistance. Moreover, natural stone ranks as a particularly sustainable material and, as such, is perfectly in keeping with the above-mentioned sustainable design concept. All natural stone laying works were performed by Steinmanufaktur Puzicha from Essen. On its website, the family business, established in 1961, cites "experience, reliability

and supreme natural stone craftsmanship" as its key credentials. The company adds that its "practised stonemasons are masters in the art of transforming the choice raw material into a design feature of lasting value for contemporary living environments". The variations in colour, texture, compressive strength, flexural tensile strength and deformation resistance between different stone types make the installation of natural stone finishes generally more demanding than that of industrially manufactured ceramic products. The choice of suitable tile-laying products is thus paramount for preserving the visual appeal of stone finishes over years and decades.

An expertly laid covering always necessitates a perfectly prepared substrate. The product specified for this purpose on the Düsseldorf contract was Sopro RAM3 454, a sag-resistant, fibre-reinforced render and filler for levelling and smoothing wall and floor surfaces. Wherever required under German standards, e.g. for the floors in sanitary spaces, the surfaces were additionally waterproofed. The necessary membranes were installed using the dispersion-based Sopro FDF 525/527 one-component flexible sealing compound and the cementitious Sopro DSF 523 one-component flexible sealing slurry.

The natural stone coverings in the lifts and lift lobbies were laid using the thin-bed method, e.g. with Sopro's No.1 Silver, a silver-grey, highly polymer-modified flexible tile adhesive (meeting C2 FTE S1 requirements to DIN EN 12004). The material's extended open time and rapid-setting properties, a result of its high crystalline water binding capacity, make it ideal for the trouble-free installation of natural stone units. The granite coverings in the stairwells were laid using Sopro MDM 888, a flexible, rapid-set, polymer-modified medium- and thick-bed tile adhesive for up to 30 mm bed thicknesses. It is particularly suitable for laying large-format natural stone and cast stone units as well as dark-coloured, deformation-resistant natural stone coverings using the medium- or thick-bed method. At the same time, its Rhenish trass content reduces the risk of discoloration and efflorescence.

cube berlin Berlin

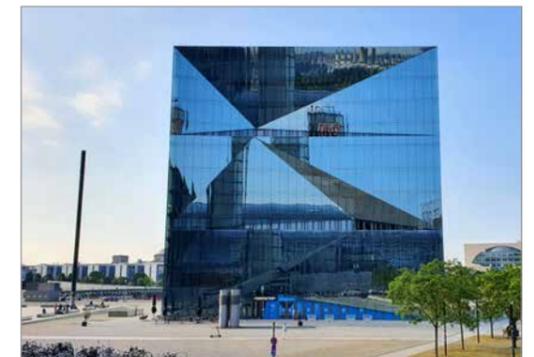
Project

- » Modern office building with restaurant facilities
- » Cubic massing (42.5 m side length) with folded glass facade
- » DGNB (German Sustainable Building Council) gold certification
- » High-spec tiling works to foyer, office storeys, stairwells and toilets
- » Installation of high-grade, custom-manufactured fully vitrified stoneware tiles



Signboard

Design practice	3XN Architekten, Copenhagen, Denmark GRAEF GmbH, Berlin
Applicator	Fliesendesign BFD GmbH, Berlin
Client	CA Immo, Berlin
Contract volume	Restaurant areas, corridors and toilets
Completion	January 2020



Products

- Sopro DSF 523 one-component flexible sealing slurry
- Sopro FDF 525/527 flexible sealing compound
- Sopro AEB 640 waterproofing and separating membrane
- Sopro FF 450 flexible tile adhesive
- Sopro FKM XL 444 multi-purpose eXtraLight flexible tile adhesive



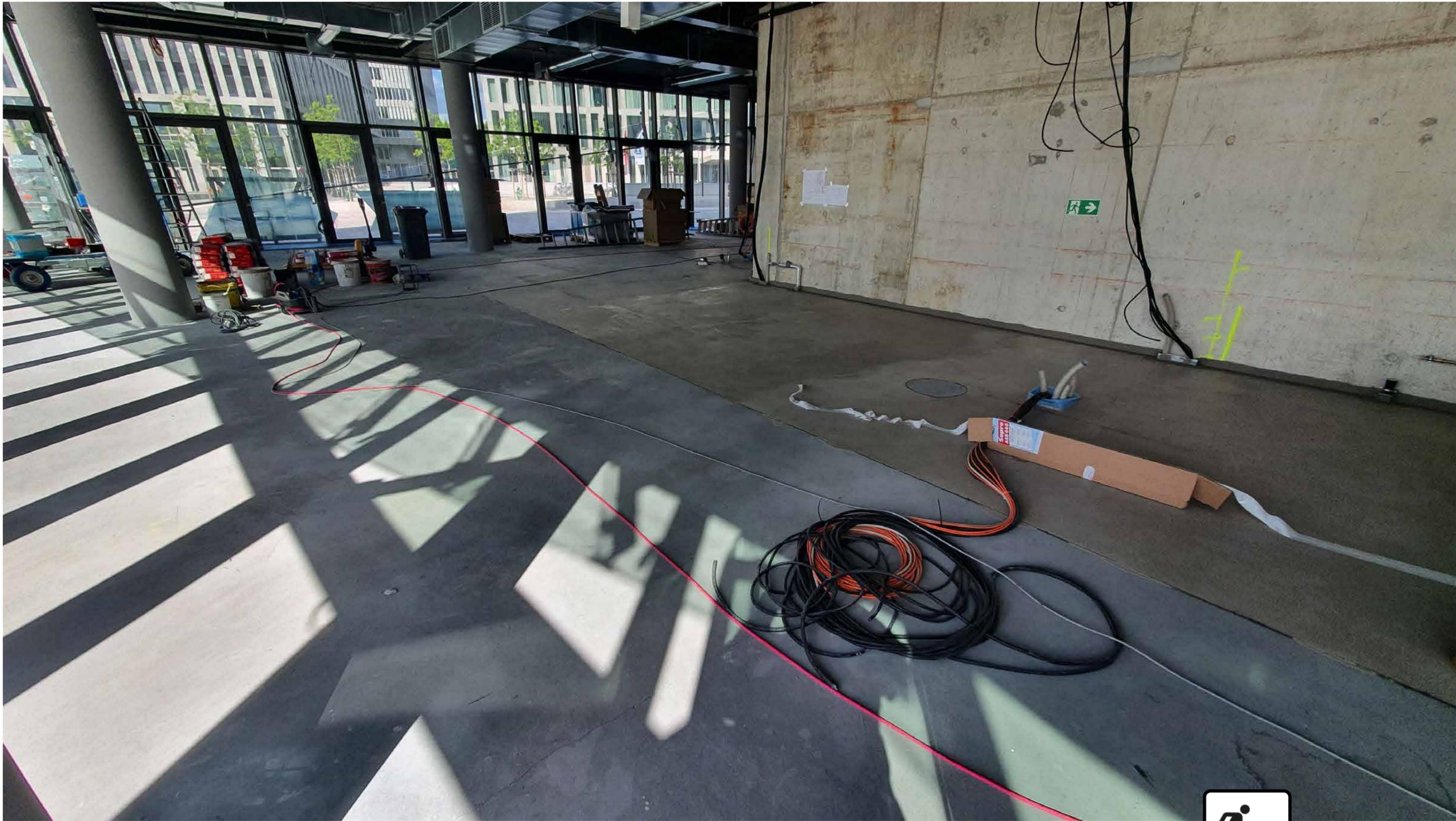
COMPLETED



cube berlin, Berlin



CONSTRUCTION
P H A S E



CONSTRUCTION
P H A S E

cube berlin Berlin

Office building with brains

The new office building on Berlin's Washingtonplatz square is a true spectacle, both inside and outside.

Cube berlin ranks as one of Europe's most intelligent office buildings. The kaleidoscopic external skin of the 11-storey, 42.5 m x 42.5 m glass box, occupying a prominent site on Washingtonplatz square next to Berlin Central Station, is not its only attention-grabbing feature. Its inner life is every bit as interesting. Given that it was developed as a green building, strict sustainability criteria were observed throughout – from design through to operation. In all tiling works, Sopro system products make a significant contribution in meeting the special requirements placed on the designers' architectural and sustainability concept – which was ultimately rewarded by DGNB (German Sustainable Building Council) gold certification.

Quite apart from its breathtaking architecture, cube berlin also excels by a single-minded commitment to environmental sustainability. Designed by Copenhagen architectural practice 3XN Architects, the kaleidoscopically reflective box offers an exemplary demonstration of how innovative architectural design can be married with complex structural and energy performance demands. Here, the fully glazed, double-skin facade is a crucial factor in that it admits daylight while simultaneously preventing the interior from overheating. Moreover, thanks to individually openable windows, it provides for natural ventilation on the ten office storeys. This, in conjunction with a series of technical solutions including energy generation from heat, allows cube berlin to operate as a highly energy-efficient building.

Digitalized energy efficiency

Cube berlin is a fully digitalized building, controlled by a kind of self-learning "brain", that collects and analyses data on environmental conditions and tenant behaviour from 6,000 sensors located throughout the building. The "brain" and its functions – e.g. access control, indoor climate control, lighting, room and parking space reservation, and electric car/bicycle charging – can be operated via smartphone and app. The resulting interaction between building and users allows each to learn from the other.

Cubeberlin's interior is designed to cater for flexible office layouts and easy adaptation to changing organizational requirements. The ground floor houses a 1,000 m² culinary marketplace with trendy catering facilities offering everything from a quick coffee on the way to the office to an evening dinner with friends. One of the scheme's main challenges was to reconcile 3XN's design and aesthetic concept with the technical requirements placed on the building. Having been developed as a green building, cube berlin was subject to strict sustainability criteria throughout the construction process, from design and product selection through to operation.

Intelligent sustainability

The tiling works for all premium office tenants and the memorably styled ground-floor restaurant were expertly performed by contractor Berlin Fliesendesign BFD GmbH using Sopro's reliable, time-tested products and systems. These played a key role in meeting the balanced mix of ecological, economic and social sustainability criteria prescribed for gold certification of the new-build project by the DGNB. All specified waterproofing products, such as Sopro DSF 523 one-component flexible sealing slurry, the one-component dispersion-based Sopro FDF 525/527 flexible sealing compound or Sopro AEB 640 waterproofing and separating membrane as well as the cementitious flexible tile adhesives Sopro FKM XL 444 and Sopro FF 450 achieve the highest rating under the DGNB scheme (quality level 4, Line 9, based on the criterion "ENV1.2 Local Environmental Impact", 2018 version). With their very-low-emission and low-odour properties (achieving a EC1^{PLUS} rating under GEV's Emicode system), these waterproofing and tile-laying materials contribute to a pleasant, low-contaminant working environment.

In the ground-floor street food market, open to both tenants and the general public, the tiling specialists installed a vibrant floor covering featuring white, black and grey hexagonal tiles that perfectly complements the adjoining sections of parquet flooring. In showpiece areas, such as the foyer, meeting rooms and corridors, the geometric design principle informing the facade is echoed by large-format tiles in elegant shades of anthracite and light-grey. The wall and floor areas in the sanitary and toilet facilities add a minimalistic note with their dark-grey, mosaic-

look tile covering. Apart from their stunning visual impact, the interior finishes in cube berlin were also required to meet criteria such as high robustness, loadability and durability. Here too, the high quality and reliability of Sopro products have paid dividends. They also facilitated the trouble-free installation of tile coverings over hollow floor constructions. The short construction time and inner-city location posed stiff logistical challenges for contractor Berlin Fliesendesign BFD GmbH. Sopro's Project Consulting team was directly involved to clarify all details regarding DGNB certification, the suitability of products and the certificates needed for their use.



International Business

Sopro Bauchemie GmbH
PO Box 42 01 52
D-65102 Wiesbaden

Fon | +49 611 1707-239
Fax | +49 611 1707-240
E-mail | international@sopro.com

Subsidiaries

Switzerland

Sopro Bauchemie GmbH
Swiss branch
Bierigutstrasse 2
CH-3608 Thun

Fon | +41 33 33400-40
Fax | +41 33 33400-41
E-mail | info_ch@sopro.com

Austria

Sopro Bauchemie GmbH
Lagerstraße 7
A-4481 Asten

Fon | +43 7224 67141-0
Fax | +43 7224 67181
E-mail | marketing@sopro.at

Netherlands

Sopro Nederland B.V.
Kruyderlaan 21 A
NL-3431 BM Nieuwegein

Fon | +31 306 05 02 14
Fax | +31 306 05 08 96
E-mail | info@soprobv.nl

Poland

Sopro Polska Sp. z o.o.
ul. Komitetu Obrony
Robotników 45 A
PL-02822 Warszawa

Fon | +48 223 352 300
Fax | +48 223 352 309
E-mail | buiro@sopro.pl

Hungary

Sopro Hungária Kft.
Bianka utca 14
H-2092 Budakeszi

Fon | +36 23 458 045
Fax | +36 23 458 048
E-mail | info@sopro.hu