Project Report/December 2024

Car Parc of New S-Finanz -Campus Kassel with new StoCretec PUR / UREA-coating system OS 10

With its S-Finanz Campus (German savings bank finance campus in Kassel), the Kasseler Sparkasse has created its new headquarters in the northern Hessian city, Germany. The central new building consists of two separate above-ground structures and two continuous basement floors. In total, well over 500 employees from other branches will work together in the S-Finanz Campus. A modern customer hall and the service centre for private and corporate customers, event space and around 100 parking spaces in the underground car park were developed.

The parking spaces for employees and customers are located on around 3,000 square metres in the second basement. The application experts coated the traffic areas in the new underground car park with **StoFloor Traffic Elastic PM MultiBase**. The fast-curing PUR/UREA parking garage system with increased dynamic crack bridging is a surface protection system of class OS 10. The system is characterised by short application time as well as by its very high wear resistance. It is chemically resistant to oils, fuels and de-icing salt. In this way, it permanently protects the concrete substrate from the influence of damaging substances. It is also UV- and colour-stable, so that the parking areas do not yellow or fade.

StoFloor Traffic Elastic PM MultiBase permanently protects the building structure and extends the service life of the underground car park.

The PUR sealing membrane StoPur PM Multi Base meets the highest requirements for surface protection systems in terms of dynamic crack bridging at - 20 °C (class B 4.2, according to EN 1062-7). This system does not require time-consuming full-surface quartz sand broadcasting and subsequent sealing coat. The StoPur AC MultiCoat wear layer is applied in one application cycle. It is a highly abrasion-resistant and wear-resistant structural coating with integrated slip resistance (R11 - V10). Various wear simulation tests demonstrate the excellent resistance to traffic loads (Parking Abrasion Test / PAT, Aachener Raveling Tester / ARTe, the latter even with the load of studded tires).

The walls and support columns of the underground car park were also coated with the StoCretec car park system up to a height of around 50 centimetres in order to ensure surface protection on the horizontal surfaces as well as on the floor.

During application, **StoFloor Traffic Elastic PM MultiBase** does not produce any unpleasant odours or fumes that would require enclosure, extraction or air exchange. Furthermore, additional sand broadcasting, the introduction of fabric and the need for sealing coats are eliminated. These system advantages bring savings in working time, material transport and storage, but also make work much easier for the specialist applicators.

The ramp leading towards entrance and exit was built of mastic asphalt. Here, the applicators pulled the waterproofing about 10 centimetres onto the horizontal of the curbs, broadcasted quartz sand and then applied **StoFloor Traffic Elastic PM MultiBase**, overlapping the mastic asphalt.

After preparing the subsurface, the specialists made final adjustments to the existing floor slab of the underground car park. After a thorough crack analysis, they filled the existing cracks and crack flanks with StoJet IHS. The two-component epoxy resin from the **StoConcrete Inject IHS** system is low-viscosity and solvent-free. The StoCretec screed mortars **StoCrete TG 114** and **StoCrete TG 118** were used to create the gradient from the walls to the drainage channel. The concrete repair products are ideal for levelling unevenness in floor surfaces, creating a gradient and as a substructure for a coating on driveable surfaces in underground car parks. With their different layer heights of 10 to 40 or 20 to 100 millimetres, the desired height adjustments can be achieved without any problem. The screed mortars from the StoCretec system and product range are characterised by high early and final strength. They combine low-tension and low-shrinkage and are resistant to frost and de-icing salt.

Properties of **StoFloor Traffic Elastic PM MultiBase**

- StoCretec PUR / UREA multi-storey car park system with increased crack bridging
- Tested surface protection system class OS 10 in accordance with DAfStb*-RL SIB:2001-10
- On concrete, cementitious screed substrates
- For open decks, intermediate ceilings, ramps, and shafts of car parks

- Crack bridging at -20 ° class B 4.2, according to EN 1062-7 as well as class IV_{T+V} in accordance with ZTV*-BEL-B 3
- Suitable for rising damp
- Resistance to severe chemical attack
- High wear resistance
- Reaction to fire: Bfl -s1, limited combustibility system build-up
- Fast curing, also for lower temperatures
- Short application time
- No broadcasting (90 % saving of sand) and no separate sealing coat required = reduced material cost and reduced transport cost to the construction site
- Odourless application
- Plasticiser-free
- UV- and colour-stable
- No carbamate foundation
- Various test certificates regarding slip resistance available
- Tested system build-up with voluntary external monitoring
- In accordance with EN 1504-2 and EN 13813

Who & What

Project:	Floor coating underground car park, Kassel, DE
Investor:	Kasseler Sparkasse AöR, Kassel, DE
Planner:	ATELIER 30 ARCHITEKTEN GmbH, Kassel, DE
Applicator:	Otto Scheuerer Bautenschutz GmbH, Kassel, DE
Realisation:	8/2024
StoCretec Competence:	**StoFloor Traffic Elastic PM MultiBase (OS 10.4)**

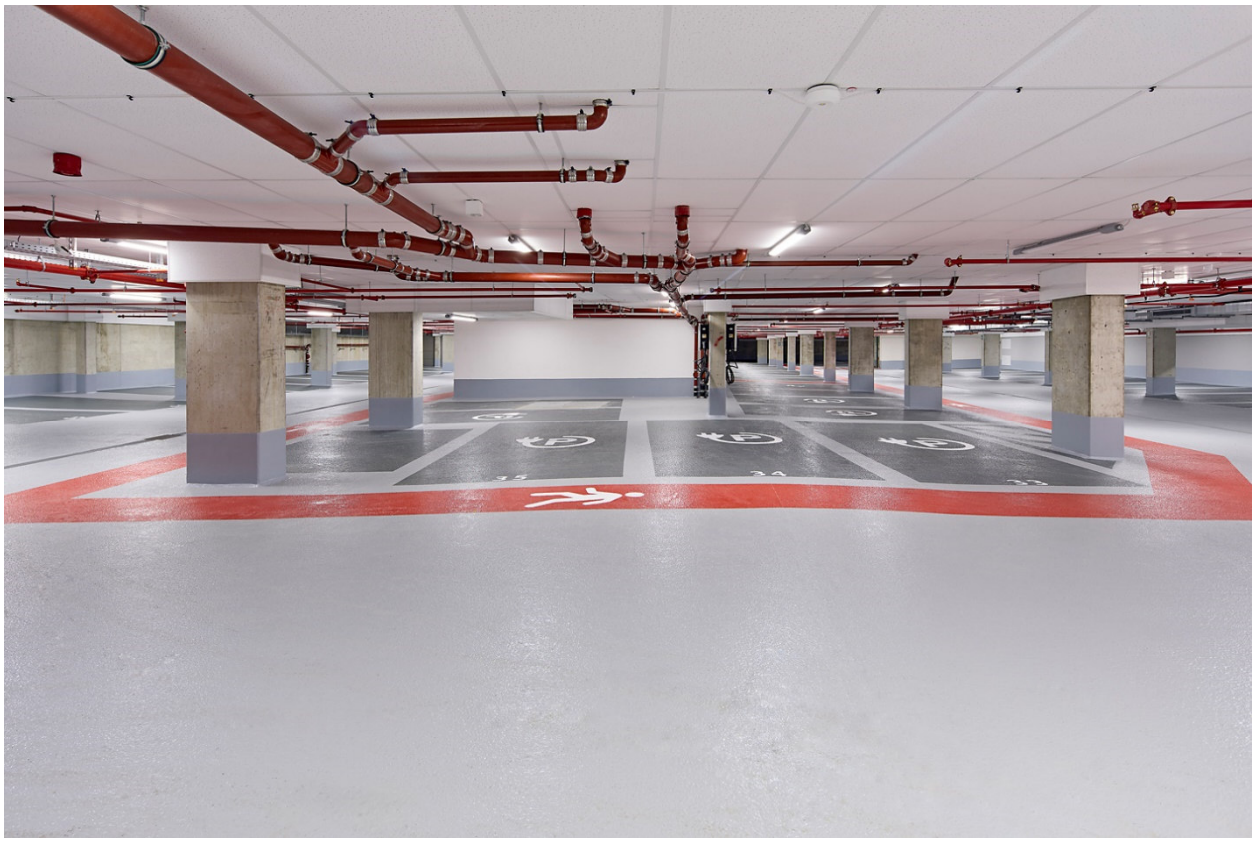
Primer	StoPox GH 500
Broadcasting	StoQuarz 0,3 - 0,8 mm
Elastic floating layer	StoPur PM MultiBase
Wearing coat	StoPur AC MultiCoat
Parking carpets:	
Sealing coat	StoPur DV 508

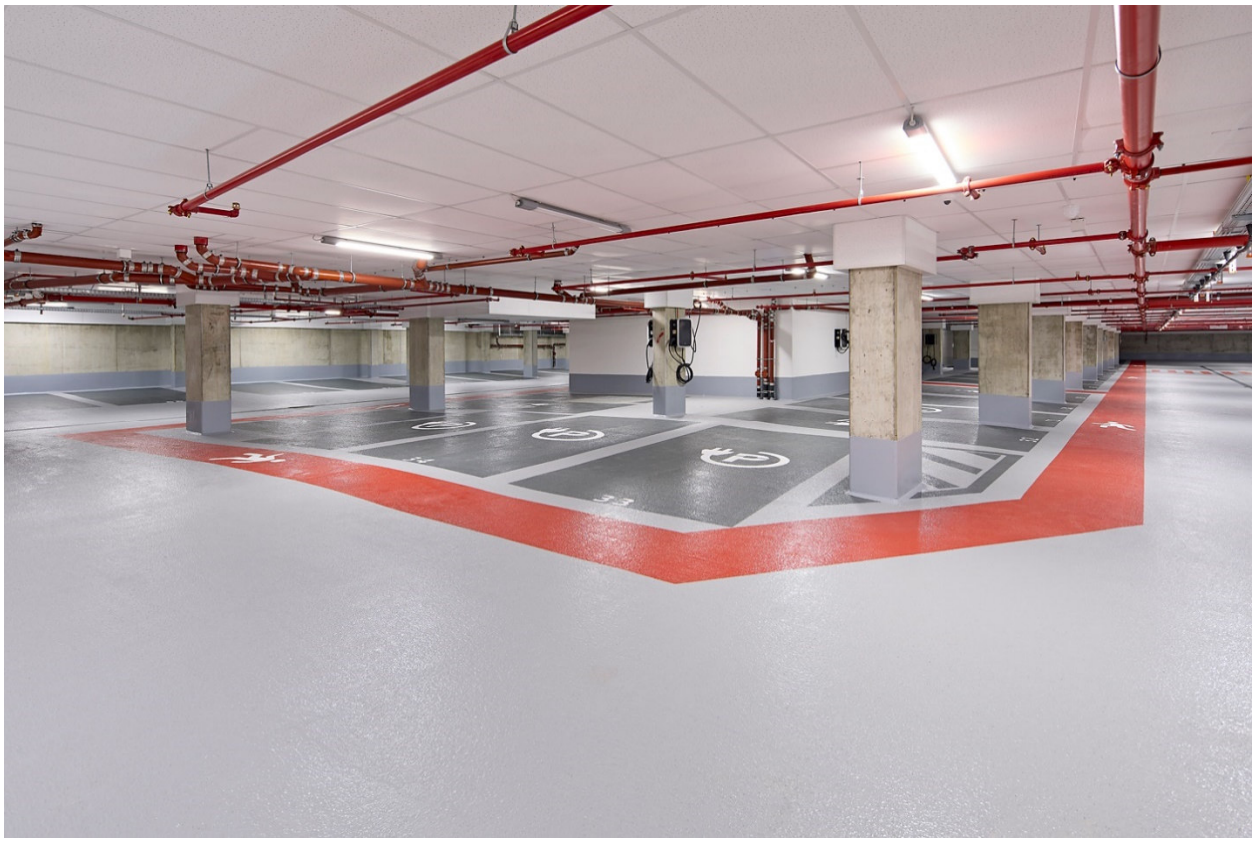
Concrete repair

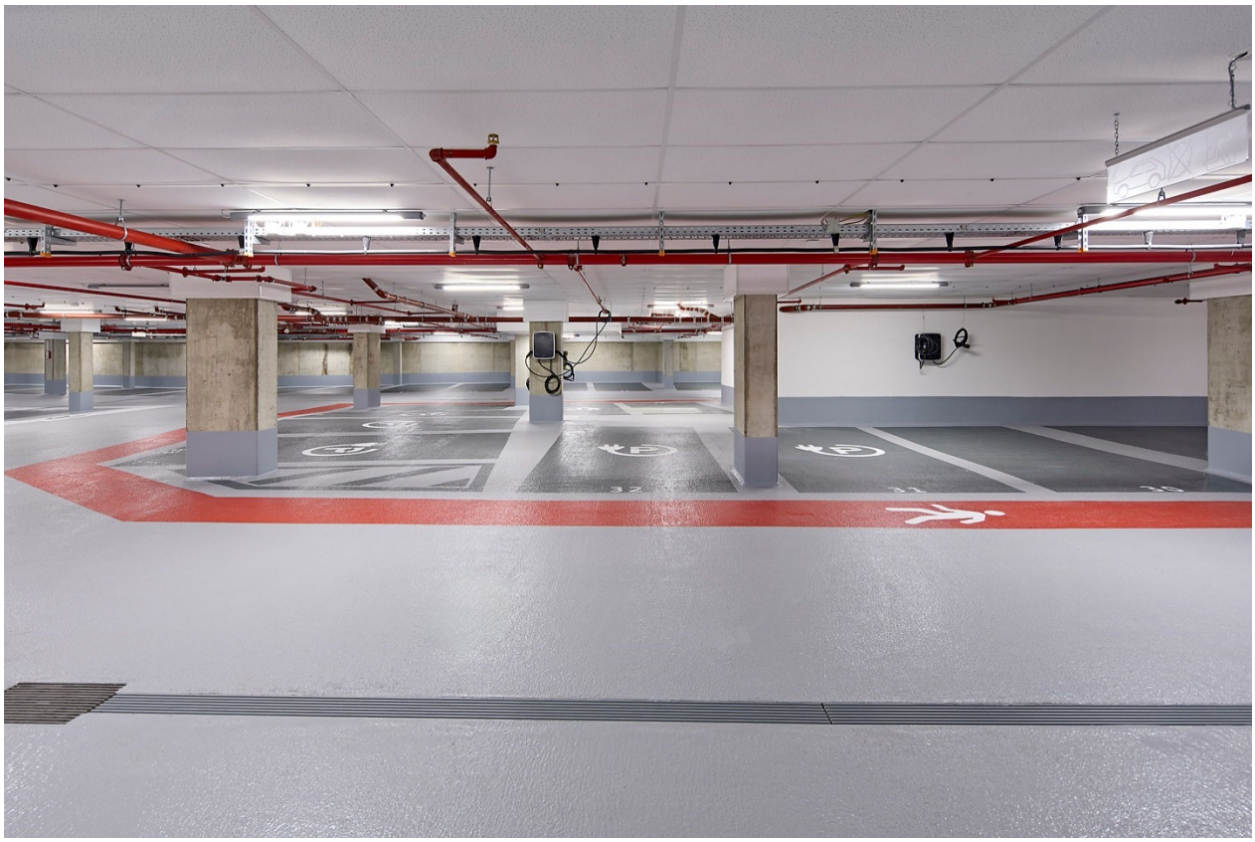
Screed material	StoCrete TG 114
Screed material	StoCrete TG 118
Injection resin	StoJet IHS

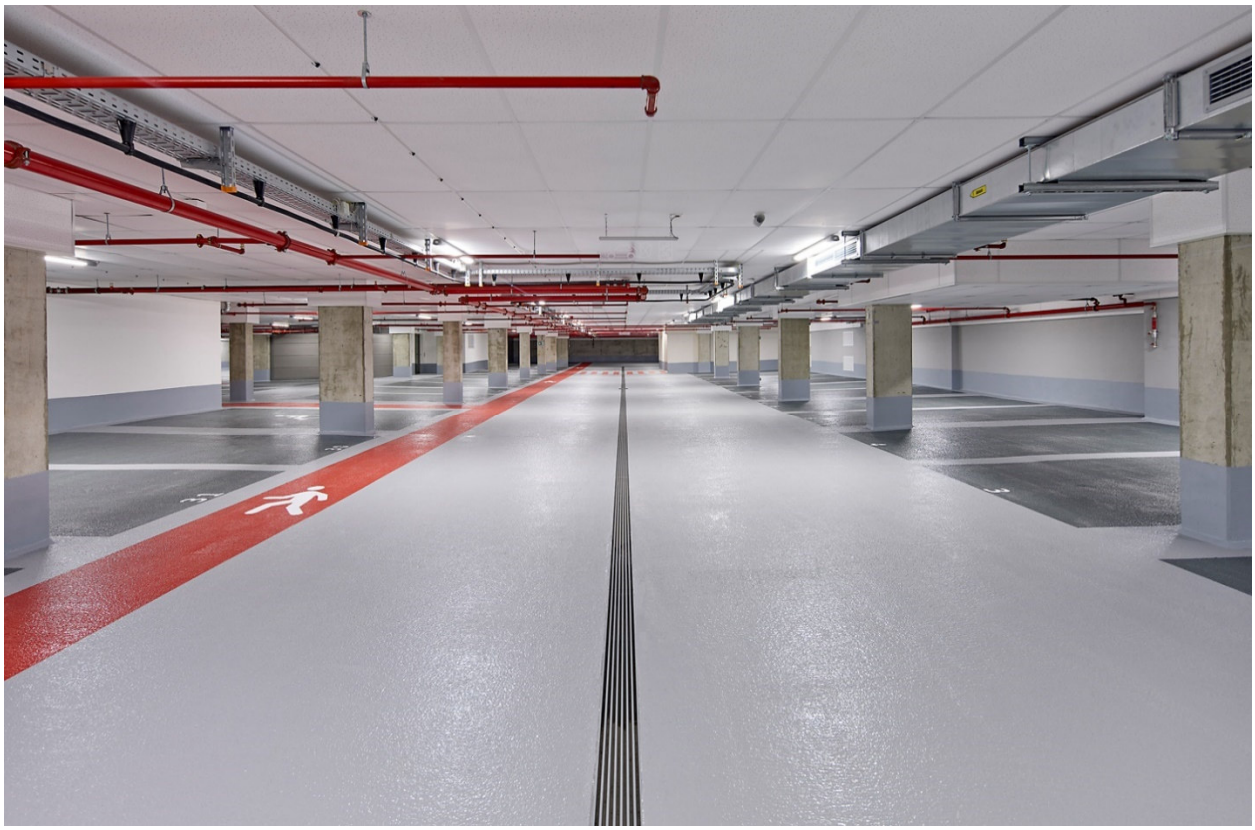
*DAfStb – German Committee for Reinforced Concrete

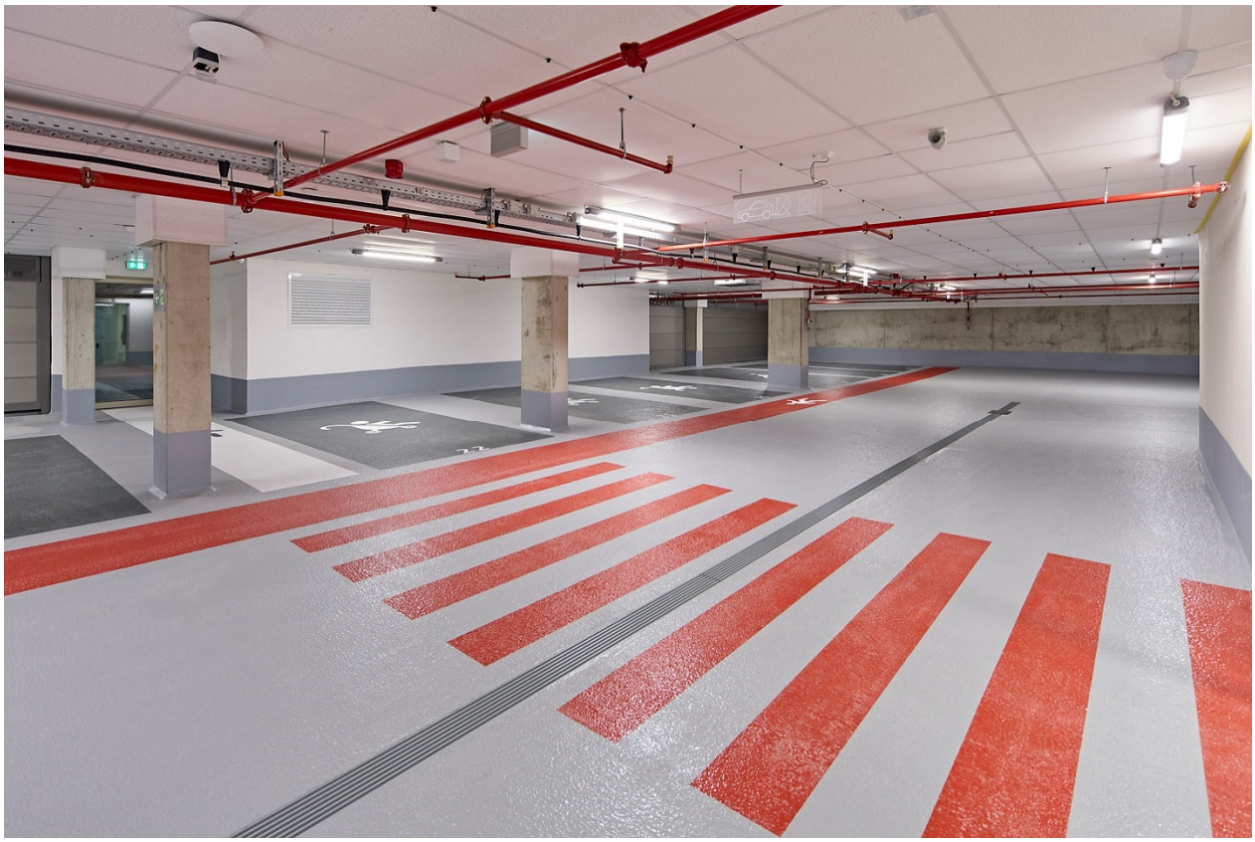
Photos: Guido Erbring











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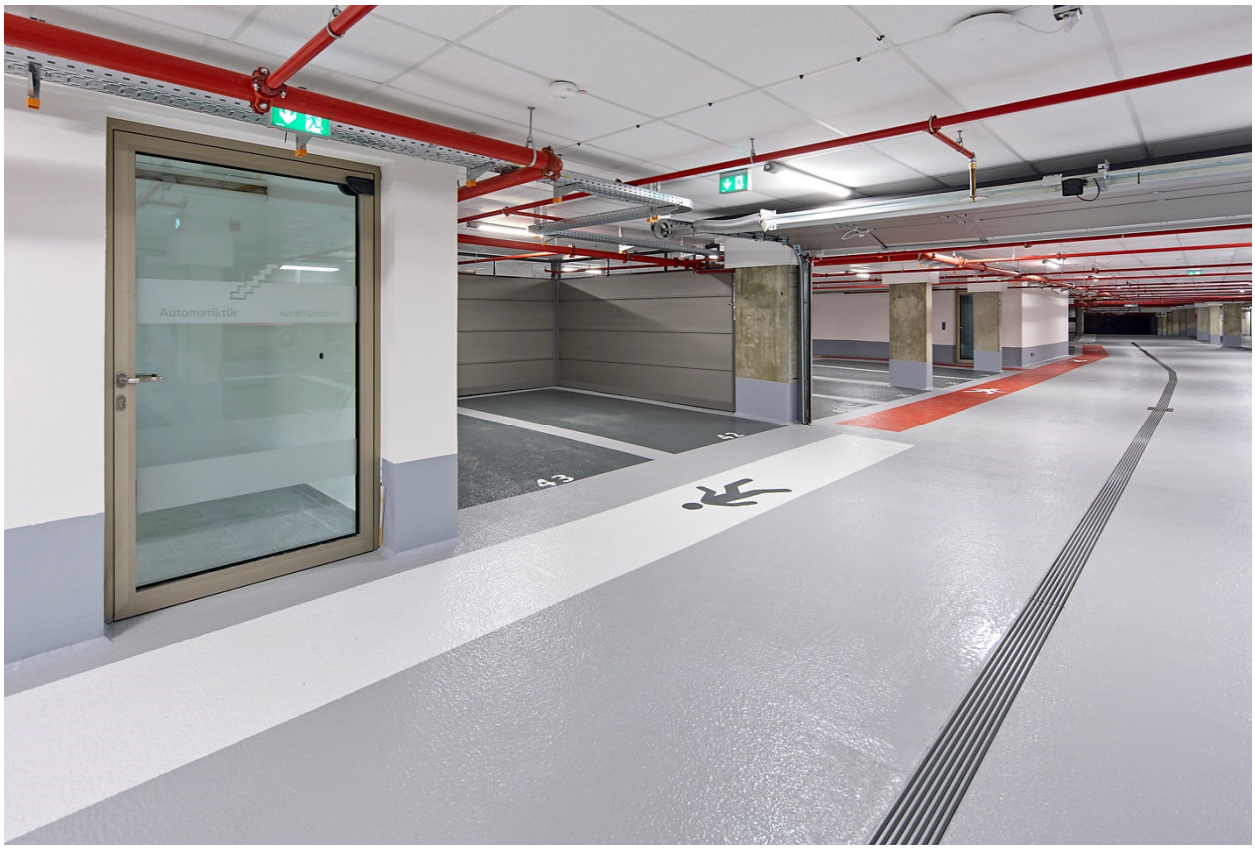
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