

Project Report/July 2023

StoFloor Traffic Elastic BA 2000: Car park repair with permanent elastic spray-on waterproofing

The “Colosseo” underground car park on the Sachsenhausen side of Frankfurt/Main, Germany, is one of the 24/7 parking options in the city's “Brückenviertel” district. 109 parking spaces are available over a total of around 7,000 square metres below shops and apartments. The entire building complex was built in 1999. After 24 years of intensive use, the underground car park has now been refurbished.

For the refurbishment of the driveways and parking areas, the planners, in consultation with the client, opted for a system solution with permanent elastic spray-on waterproofing: the proven OS 10 system for traffic areas StoFloor Traffic Elastic BA 2000. As a preparatory measure, appropriate concrete tests were carried out, the substrate prepared using appropriate mechanical methods and re-profiled with StoCretec concrete repair products.

The high degree of crack-bridging of the StoFloor Traffic Elastic BA 2000 surface protection system was ideal for use in the underground car park. It reliably prevents damage to the building substance caused by splashing water and de-icing salts, which are carried by vehicles entering the underground car park, especially in winter.

Two inherent "surface protectors"

The inherent PUR protective layer, StoFloor Traffic Elastic BA 2000 permanently waterproofs the concrete components. This extends the maintenance-free service life of the underground car park. The permanent elastic StoPur BA 2000 spray-on waterproofing consists of an unfilled, two-component polyurethane resin and is applied as a separate waterproofing layer using a time-saving spray process. The wearing course StoPox TEP MultiTop with its special hybrid formulation of epoxy and polyurethane resin combines high wear resistance with increased dynamic crack-bridging. It also withstands crack width changes due to high temperature and load change stress. With simultaneous exposure to mechanical, moisture and UV stress, no serious degradation of the EP/PU binder can be observed.

Properties of **StoFloor Traffic Elastic BA 2000**

- StoCretec PUR waterproofing system with native protection layer
- StoCretec surface protection system OS 10.2
- For intermediate ceilings and for open decks in multi-storey car parks
- On concrete and cementitious screed substrates
- Crack-binding
- Resistant to severe chemical attack
- Very good wear resistance
- Limited combustibility system build-up
- In accordance with EN 13813 und EN 1504-2
- Tested system build-up with voluntary external monitoring
- Tested for raising damp (German RILI-SIB/DAfStb)
- Various test certificates available for skid resistance
- Large number of long-term references

Who & What

Project:	Multi-storey parking, Frankfurt/Main, DE
Planner:	KuA-Consult – Ingenieurgesellschaft für das Bauwesen mbH, Darmstadt, DE
Applicator:	Wayss & Freytag Ingenieurbau AG, Frankfurt/Main, DE
Realisation:	6/2023
StoCretec-Competence:	StoFloor Traffic Elastic BA 2000 Primer StoPox BV 100 Bonding agent StoPur VS 70 Scattering StoQuarz 0,3 - 0,8 mm Waterproofing StoPur BA 2000 Coating StoPox TEP MultiTop Scattering StoQuarz 0,3 - 0,8 mm Sealing coat StoPox DV 100

(Photos: StoCretec)







