

Case study

Monitoring solution for car parks (Repair)

August 2014



New car park project

Client:
Private builder

Initial situation:



As a result of high loads (mechanical / chloride), damage (cracks / spalling) became visible on the floors of the underground car park. In order to get an exact picture of the damage, the underground car park was inspected, and the damage was catalogued. The client commissioned a trial repair to verify the repair calculation and to determine a repair technology appropriate to the object and the damage. The "W" repair principle was to be used, as well as the removal of salts from the columns. Moisture and corrosion monitoring systems from BS2 were used as a safeguard.

Solution:

Installation of humidity and corrosion sensors (standard version) in the Crack area of the construction joint. Connection to the old concrete by means of coupling mortar

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Installation of humidity sensors in the unloaded area (reference) of a pitch, as well as in the repair area





The data was read out manually by a handheld reader, whereby the selection of the readers (10 cm / 30 cm) must correspond to the installation depths of the sensors. In addition, remote interrogation of the sensors is possible, e.g., to control the inspection periods.

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Added value:

- ✓ Uncomplicated visualisation of the building condition
- ✓ Significant cost reduction in subsequent concrete repair due to early detection of damage
- ✓ Proof of the success of the repair
- ✓ Differentiated repair in case of OS system failure
- ✓ Targeted control of the inspection intervals by querying the humidity values
- ✓ Reduced blocking times for subsequent repairs