





MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE

Case History Spotlight #678: Swedish Water Tower Repair



The water tower in Höganäs County, Sweden, was built in 1978 with a 50-year service life design. By 2020, chlorides and carbonation had caused reinforcement corrosion, and pieces of concrete were breaking apart and falling off. Although bearing capacity was not yet affected, some damage that could potentially cause problems was found on tension cable fastenings. Large areas still had high levels of chlorides, and there was the danger that concrete damage could progress rapidly. The municipality wanted to repair the structure and extend its service life by at least 20 years.

The chosen repair method involved removing all paint by sandblasting. They water jetted local damage and repaired it with a corrosion inhibiting repair mortar. Next, they treated all concrete surfaces (3,000 m² [3588 yd²]) with Cortec® MCI®-2020 V/O. The last step was to repaint the water tower.

Everyone involved with the project was satisfied with the renovation. Although other methods had been proposed, the MCI® repair plan made the most sense compared to other methods that offered a shorter expected service life or cost more because of demolition and new construction requirements.

Log in to read the full case history: http://www.corteccasehistories.com/

Keywords: Case History Spotlight, water tower repair, Cortec, MCI, rusted rebar in concrete, chloride induced corrosion, carbonation corrosion, SACI, surface applied corrosion inhibitors, concrete repair

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