



MIGRATING CORROSION INHIBITORS  
FROM GREY TO GREEN



**CORTEC**  
CORPORATION

Environmentally Safe VpCl®/MCI® Technologies



## MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE

# Case History Spotlight #734: Best PT Mix Ever!



In 2021, a new mixed-use complex in Nebraska called for the construction of a four-level post-tension (PT) parking garage with a 100-year design life (before the first corrosion-related repair). Adding a corrosion inhibitor was essential because of the high corrosion risk from frequent winter freeze-thaw cycles, excessive ice, and heavy deicing salts.

Shortly before the first concrete pour, the contractor had a bad experience using a calcium nitrite corrosion inhibitor (CNI) in another PT parking garage. The PT mix had been difficult to place and finish because of set acceleration, stiffness, and a low slump. As a result, the contractor decided to try [MCI®-2005 NS](#) as an alternative in the next project.

The first pour took place in the middle of a July heat wave, with the heat index at 100 °F (38 °C) at 9:30 in the morning. Since heat can accelerate set time, the contractor wondered if they should wait until evening to pour the mix. Their Cortec® MCI® regional sales manager reassured them that they could go ahead and treat the mix as they normally would under these temperatures. They did so, and soon noticed how much easier it was to consolidate and place the mix than their last CNI batch. Even an interruption in the placement job left them with great results when they resumed and made their first finishing pass.

At the end of the pour, the contractor's general superintendent commented that this was the best PT mix he had ever placed and that he never wanted to go back to CNI. In less than a week, his prediction that other local ready-mix suppliers would want to switch over, as well, came true when all ready-mixer bids for another parking garage included MCI®-2005 NS as their corrosion-inhibiting admixture.

To read more details in the full case history, please visit:

[https://www.corteccasehistories.com/?s2member\\_file\\_download=access-s2member-level1/ch734.pdf](https://www.corteccasehistories.com/?s2member_file_download=access-s2member-level1/ch734.pdf)

**Keywords:** Case History Spotlight, Cortec, MCI, CNI, corrosion inhibiting admixture, set acceleration problems, corrosion, calcium nitrite alternative, deicing salt corrosion, pouring concrete in heat wave

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