

CASE STUDY:

A Food & Beverage Factory
in the Greater Atlanta Area



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A product manufacturer contracted CPC Floor Coatings with an unusual flooring dilemma. Their food manufacturing plant outside of Atlanta had previously had an epoxy floor coating installed, but it wasn't holding up under the plant's day-to-day conditions. They wanted to know if CPC could determine the issues and fix the problem.

One of CPC's representatives arrived at the facility and spent an hour walking with the facility's maintenance manager, noting the conditions, asking questions, and listening to employees describe their issues and needs regarding the floor surface.

CHALLENGES

During our tour of the factory, CPC discovered several reasons that the old epoxy floor coating had failed:

- Chemical reactions: The binding used in the creation of the product was being tracked through the facility on a regular basis, and it actually weakened the epoxy's bond with the floor.
- Moisture: Unresolved moisture issues had compromised the ability of the epoxy to perform well, and contributed to the delamination of the coating.
- The concrete itself: The factory's flooring is an enhanced type of concrete called Masterplate, which contains steel shavings for added strength. Unfortunately, this makes it nearly impossible to achieve the proper surface preparation needed to ensure the optimal bonding for an epoxy coating.

In addition to the challenges above, the manufacturing plant had major restrictions on downtime. It could only shut down operations completely three or four times a year, and this downtime was dedicated to machine maintenance, not floor coating. So if at all possible, the new coating had to be installed during production—but not compromise the safety of the product or impede production.



PROPOSED SOLUTIONS

While epoxy is generally a great solution for the manufacturing environment, it was clear that a coating had a low chance of success in this case.

CPC recommended a radically different solution: remove the epoxy and polish the concrete instead. Polished concrete would serve the factory just as well, and it would avoid the bonding problems altogether.

This solution offered another major advantage: the ability to avoid having to shut production down at all. CPC recommended the wet polish method for polishing concrete, which is 100% dust-free and eliminated any chance of product contamination.

After a short test run, the plant supervisors were convinced that this solution would give them the results they wanted with no disruption to the factory's routine, and they went ahead and hired CPC for the job.



BENEFITS

When the project was completed, the factory managers were pleasantly surprised by many unforeseen benefits of the polished concrete solution. These included:

- **Significant cost savings.** The final price came in at about half of the company's original budget for flooring.
- **No downtime.** The work was completed during work hours with no chemical fumes, no dust, and no drying time.
- **Easier maintenance.** Once the damaged epoxy was removed and a slight change in cleaning maintenance implemented, the areas with polished concrete were much easier for maintenance crews to clean.
- **Better aesthetics.** Not only does the glossy finish improve the look of the concrete, it actually improves the floor's light reflectance value (LRV), making the interior brighter without requiring extra energy.

Does your facility have an unusual flooring challenge? Talk to one of our flooring experts for a free consultation!