



PARKING GARAGE REPAIR YIELDS A HIGHLY DURABLE FINISH

Despite its subtle curves and dramatic angles, IBC Bank's new headquarters in Austin, Texas, is more than just a pretty building with some offices and a drive-thru. The 13-floor IBC Bank Plaza supports the city's "Great Streets" program by providing a warm and inviting street-level presence complete with restaurants, retail space and an elegantly landscaped streetscape. The mid-rise building is also Austin's first new downtown office tower in more than a decade.

The 203,400-square-foot building includes seven levels of rentable office space above six levels of parking for up to 450 cars. The building designers specified a rough, broom finish for the parking garage's concrete slab, to provide a good grip for vehicle tires and pedestrians during wet conditions.

However, in some cases, the concrete started setting before the finishers were able to get to it. This led to several areas of the garage having a smooth finish that would cause tires to slip when wet. The owners wanted the problem fixed—and fast.

Approximately 800 square feet of slab needed to be repaired, with the majority of repairs taking place on the ramp at the entrance to the garage. Because the building was still under construction, the crew had to work around heavy forklift traffic and needed a fast-setting cement material for the work. Austin-based subcontractor Querrey Concrete Construction opted to use Rapid Set® Cement All®, a fast-setting, high-strength, multipurpose repair material that sets in 15 minutes and is ready for traffic in one hour.

Cement All is a high-performance blend of Rapid Set® Cement and specialty sand. The multipurpose product is comparable in appearance to traditional concrete repair materials and can be applied using similar methods.

First, crew members used a scarifying machine to prep the areas to be repaired. They then vacuumed and washed the slab thoroughly, and saturated it with iced water. Ice water was used to lower the hot ambient conditions experienced on the slab. Next, they installed Cement All by trowel at ½-inch depth.

The contractor used more than 70 bags of product (one 55-pound bag yields approximately 0.5 cubic feet) and added Rapid Set® Dark to match the color of the new concrete to the existing slab. The Rapid Set Dark additive darkens the color of concrete and

grout mixes. Because the work took place during temperatures of 80° F and above, the product was mixed with ice water via mechanical mixer to increase the working time for the crew.

Querrey Concrete water-cured the repaired areas. The subcontractor then went over the surface with a sponge float before applying a broom finish. A relatively new technique, the sponge float brings up the sand to get a better and rougher broom finish.

The repaired areas were opened to traffic the very next day. The project, which is located at the heart of downtown Austin, is seeking LEED Silver certification from the U.S. Green Building Council.



The crew mixes a trial batch to test the color of the mix, to ensure the right amount of the Rapid Set® Dark additive is used to match the repairs to the concrete.



A crew member applies a scrub coat. This method is used to improve adhesion.

PROJECT PROFILE



Working Rapid Set® Cement All® deep inside the pores increases adhesion and prevents delamination.



A crew member builds Cement All to the desired thickness of ¼ inch.



A sponge rubber float was used to apply a broom-like finish.