

The Problem with Stamped Concrete

By Mark Celebuski a partner in Trinic LLC

It's been about 30 years since I ran a stamped concrete crew. I needed a job at the time and I knew a little bit about concrete so I answered an ad in the paper and ended up running a crew in short order.

I was not the best finisher on the team, nor the top laborer. I did the planning, layout, ordered concrete, and filled in as needed. We had a six man crew at the time, two labors, three finishers, and me. We'd use all six on the larger pours and break into teams for smaller projects. A lot of the projects we did were stamped with ridged metal stamps, sometimes we'd fill the grout joints in after the concrete was cured for a very labor intensive but authentic look.

One project in particular sticks in my mind. It was on public property so I'd stop by every few years post cast to take a look at it when I was in the neighborhood. It was about 20,000 sq. ft. total with about 10,000 sq. ft. of exposed aggregate and 10,000 sq. ft. of a slate type pattern. The stamped and exposed aggregate were laid out in alternating 15 ft. wide bands in a courtyard. We would cast 10 cy in the morning and another 10 cy in the afternoon, carefully adjusting the dosage of retarder so we always had concrete of about the same firmness as we stamped regardless of the temperature.

We used surface retarder on the exposed aggregate, pressure washing the surface off the next day. It would not be considered state of the art by today's standards but it was workmanlike for the time and I know the concrete quality was ok as we had inspectors testing every load.

I recall using a thick build sealer at the time although I don't remember the brand. We rolled it on the stamped pattern and exposed aggregate until everything was well coated. The project looked fine, was accepted by the architect and life moved on.

The first time I re-visited the project was a few years later. UV light had taken its toll on the sealer fading it considerably, hiding the highlights in the stamped pattern and giving the exposed aggregate a pale pasty look. I recall the next visit a few more years down the road when a fresh coat of sealer had been applied. The surface now looked shinny with a thick coat of sealer just about hiding the details. I think it was about year 8 when things started to really go south for the project. The sealer was peeling like skin after a bad sunburn, exposing the raw concrete in places and holding tight in other spots.

I don't exactly know when they finally ripped out the stamped portion of the project but one year it had been replaced with concrete pavers. I'm sure the paver salesman had an easy time selling against stamped concrete, after all "just look at it after 10 years; pavers would last much longer".

Today's stamped concrete is far more advanced, but today's stamped concrete is doomed to the same cycle of eventual failure due to sealer failure as projects poured 30 years ago. I see it on a daily basis. Thick whited out and yellow sealer. Projects re-sealed with yet another thick coat of sealer when there is already way too much sealer build. Even projects where the sealer is removed though chemical or mechanical means are being re-sealed with thick build failure prone sealer: Why? So the sealer can be removed by mechanical or chemical means in another 3 years? If this is not the definition of insanity, it's real close.

Another recent trend is the use of urethanes outside. They may be UV tolerant but eventually they will fail and when they do they are just about impossible to fix or remove (ever seen sand blasted sand bounce of a coating?). I had to grind urethane off six outdoor kitchens; the experience was enough to teach me my lesson.

A callback costs you three times, once in the lost revenue of sending a man (or crew) out to attempt a repair, once in the revenue the man (or crew) could be generating on another project, once in the

goodwill you've lost by screwing up a project. If you've ever had an angry homeowner about ready to kill or sue you you'll want to eliminate call-backs as soon as possible.

The answer is simple: A high quality, low build, color enhancing sealer that can be repaired and re-coated (in 4 or 5 years, not every year) - It would have to be very tolerant of temperatures and moisture; after all this is the real world where concreters can't wait for 65 degree overcast days with no wind and a bone dry slab to apply sealer sometimes its 90 and sunny – It would have to be moisture tolerant: sometimes the wash and seal guy does not let the pad get totally dry before sealing - It would not blister, it would not whiteout, it would not turn yellow - It should be tested to the equivalent of 8 years UV exposure with no problems. Doesn't exist? - We beg to differ.

At Trinic we developed a sealer we believe will change the world of stamped concrete. **Stamp Shield** It's intended for professionals who are in the industry for the long haul, contractors that want phone calls thanking them for their work, not sealer call-backs, contractors that want to work towards a 100% sealer success rate.