

SUPERMARKET DAZZLES WITH INTEGRALLY COLORED OVERLAY FLOOR



Fig 1 - The colors on the floor of the Hi-Lo supermarket merge in "waves" mimicking the look of the nearby beach.

In Trinidad, the Hi-Lo food stores make up the country's largest supermarket chain. When the store in Maraval was looking for an alternative to vinyl composition tile (VCT) for their facility, a decorative polished concrete floor was suggested.

"We sold them on the idea of decorative polished concrete based on the lower cost of maintenance, a better looking, more attractive floor, and use of environmentally friendly material, which is a future floor industry trend," said Ryan Ali of Concrete Genius, the concrete floor contractor.

The floor used color to highlight the various departments of the store. For example, green was used for produce, and red was for meats. Additionally, since the store is in the Caribbean, beaches and sand dominate the outdoor scenery.

The supermarket is located near the most popular beach in the country, and it was decided that the colors on the floor would merge in "waves," mimicking the look of the beach. Trinidad is also the birthplace of Carnival and during this time the country is overwhelmed with vibrant colored costumes and masqueraders.

Incorporating this color theme into the supermarket design reflected the Trinidad culture. No other system available offered this flexibility in design.

CONSTRUCTING THE FLOOR

The project was completed at a fast pace. Concrete Genius was involved in the design after the project was given the green light and then had less than a month to arrange the product, manpower and machinery.

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Fig 2 - TRU^{\otimes} Self-Leveling was mixed with Ameripolish OS Dye to produce the green color for the produce section.



During the construction, Concrete Genius followed these steps:

- 1. Existing VCT tile was removed.
- Glue was removed and cracks were filled.
- 3. The entire surface was shot blast.
- 4. An epoxy primer with sand broadcast was applied.
- 5. The surface was then vacuumed and sand was removed.
- 6. Divider strips were installed. according to the design layout
- CTS Cement's Rapid Set TRU was mixed with Ameripolish OS Dye and poured into sections.
- 8. The surface was ground and polished.
- 9. Stain protector was applied.
- 10. The surface was burnished with twister pads.

There were some challenges during the process, but they were all resolved through communication and determination.

"Failure was not an option and we literally didn't sleep for the duration of this project," said Ali.

CHALLENGES ENCOUNTERED

Working on a floor of this nature was new for the general contractor and the project team. Because they did not have the experience of working around a floor of this type, the team encountered frequent jobsite contamination. Work schedules would clash, but most conflicts were rectified through meetings.

The very hot temperature of the area was a challenge. Because of the heat, the product would set faster than anticipated.

To avoid this, more than 1,000 pounds of ice were used to chill the mix water and extend the work time of the product. The temperature and humidity caused the product to rapidly gain strength. The floor was much harder to cut than expected, which slowed down the process.

"We literally ran two shifts of 12 hours for seven nights to grind and polish the floor," said Ali. "All the while having man lifts, refrigeration equipment, ceiling tiles, gypsum board and electrical work going on around us."

The store had already announced a grand opening date so delay or downtime were not options.

A VISUAL SUCCESS

"The owners were extremely happy with the final result," said Ali. "Apart from it being the first of its kind in the English-speaking Caribbean, no one had ever seen polished concrete and more importantly colored concrete. The response has been much more rewarding than expected, especially from their customers. Strangely enough, the floor was the talking point by most customers during the first week of opening - much to our delight.

"I honestly don't think that we would have been able to achieve such spectacular results without our friends Jose Ruiz of CTS Cement and Heath Harkin of Ameripolish, both of whom were on-site throughout the duration of the job, providing tremendous technical and physical support," Ali said.



Fig 3 - Using divider strips, the floor could be divided and poured an several colors, indicating the various departments.

"Understanding and maintaining this type of surface brings with it special challenges and addressing them is a continuous learning process, but it's a challenge we're thrilled to accept."

The project began July 19, 2012 and was completed on time on Sept. 15, 2012.

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