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Hard Transformation

Eneref Institute examines why the choice of eco-friendly polished concrete flooring was adopted in the Los Angeles Architecture and Design Museum.

The Architecture + Design (A+D) Museum in Los Angeles celebrates and promotes an awareness of progressive architecture and design in everyday life through exhibits, educational programs and public outreach.

So when planning its new building, the museum team wanted a distinctive look that was easy to maintain and impervious to the red wine that sometimes spills during art openings.

While exploring its flooring options, the museum team found polished concrete was a recurring theme. "Walking through some designer and architect offices, we kept seeing some really interesting polished concrete floor," says Tibbie Dunbar, executive director of the museum.

Polished concrete flooring is a relatively new technology, and industrial facilities have been among the first to utilize it. More recently, the flooring technology has found its way into locations as diverse as grocery stores and airplane hangars. Particularly because of its distinctive look and ease of maintenance, polished concrete is now specified in offices, exhibit centers and, most recently, in the A+D Museum.

Initially, when polished concrete was specified in industrial buildings, it was seen as an affordable upgrade to a straight, bare concrete floor. Tradition-

al straight concrete floors in warehouses need constant maintenance to stay clean and dust free.

However, advances in concrete floor polishing helped create a new floor that was far easier to keep clean. Grocery stores especially report that the cost of maintaining a polished concrete floor is less than a quarter the cost of maintaining tile. More recently, the retail industry has discovered the benefits of polished concrete for which a sparkling clean floor is crucial to sales.

Few flooring options are as environmentally friendly as polished concrete – especially if the concrete floor already exists under a carpet or vinyl composition floor that needs to be removed. And improving upon an existing floor offers many practical benefits, as well.

"We wanted to do things as sustainable as possible" Dunbar says. "And we were pleased to find a sustainable product that satisfied our aesthetic desires as well."

The museum opted to use Quest-Mark Flooring's DiamondQuest – a multistep fine-grinding process that uses specialized high-tech resin diamond tooling. The concrete floor is first prepared by removing buildups of glue or coatings. Then, special liquid chemical densifiers are applied to ensure the floor is hardened to resist stains. Polishing the floor with increasingly finer



The smooth and glossy finish of polished concrete gives aesthetic satisfaction to A+D Museum

diamond tooling ultimately produces a high-shine floor like the type desired by the museum.

The flooring process for the museum, roughly a 4,000-square-foot facility, took about two days. Quest-Mark reports that in retail locations, the process is usually completed while the store remains open by marking off a few sections at a time. And the polished concrete can immediately handle foot traffic once the polishing process is complete.

Although more and more green buildings are taking advantage of polished concrete, most install the floor because of its ease of maintenance.

But for a museum, whose very purpose is to exhibit design ideas, the floor's aesthetic was the top priority, and polished concrete met the standard.

"It's beautiful," Dunbar says, "and people have commented about how beautiful the floor looks." ●



This article is an excerpt of the future Eneref report which assesses the impediments to building zero-energy urban communities in the US. A companion film documentary, The Eneref Project, will seek to demonstrate to key decision-makers how zero-energy communities can be commercially viable.