

Seeing Green In Concrete Floors

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Feature

Concrete is a low-maintenance floor covering that, with regular maintenance, will shine for years.

CM/Spotlight: Hard Floor Care

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At the 2009 ISSA/INTERCLEAN® North America Trade Show in Chicago, William R. Griffin, one of the industry's leading cleaning consultants, said that the floor care industry is in for some big changes — in fact, many have occurred already.

Among those mentioned was that fewer facilities are demanding a "wet-look" shine on their floors due to both economic and environmental reasons.

Griffin noted that the types of floors installed are changing as well.

Although there still will be plenty of vinyl composition tile (VCT) floors in commercial facilities — along with different types of stone — many facilities are opting for concrete or what is often termed polished or "decorative concrete" floor coverings — polished or decorative concrete that has been finished, painted, stained, textured or had color particles added.

Before exploring the use and maintenance of concrete floors, we should have an understanding of what they are.

Concrete is typically made up of cement, aggregate — sand, gravel, crushed stones — and water.

The combination of materials used to make concrete can vary depending on where it is used and its application.

Traditionally, a basic type of concrete has been used as the subfloor under finished flooring; however, in more and more settings, concrete is the finished flooring.

It has long been the flooring in industrial-type facilities, but it is possible that its installation in "big-box" stores has increased its acceptance and pace of installation elsewhere.

The reasons for this, which go far beyond it being a new fashion in commercial facilities, include that concrete flooring is:

- **Environmentally preferable:** Concrete is often viewed as an environmentally responsible and sustainable floor covering, and using concrete can increase the number of points awarded to a building seeking Leadership in Energy and Environmental Design (LEED) certification.

- **Cost-effective:** Compared to many other types of hard and soft floor coverings, concrete is considered cost-effective to install and to maintain.
- **Durable:** One reason concrete floors are installed in big-box stores is that concrete is one of the most durable floor coverings available.
- **Low maintenance:** Concrete floors are typically easy to clean and maintain. If no finish has been applied, they generally just need to be vacuumed or dust mopped/damp mopped using a neutral-pH cleaner; there are usually no grout areas requiring special cleaning and, in larger areas, an automatic scrubber can easily clean concrete floors.

Concrete Care

Although concrete flooring can be relatively easy to maintain — especially when compared to many other floor types — facility managers, service providers and building service contractors (BSCs) should know that decorative concrete floors can become more complicated and involved to maintain.

In some cases, a stain has been applied to the floor.

Although the stain will not flake off as paint might, it penetrates only the top layer of the concrete surface.

In time, it can wear away due to foot traffic or weather exposure.

To prolong the life of the stain, manufacturers recommend applying multiple coats of a clear sealer or floor finish to the concrete.

However, once a sealer or finish has been applied, the floor may need more restorative attention such as scrubbing to remove surface-level soils — just as with other types of hard surface floor coverings.

Further, the floor may eventually need to be stripped and refinished to deep clean and revive its appearance.

Unfortunately, this not only increases the costs to maintain a concrete floor but — because of the powerful chemical strippers, cleaners, polishes and glosses that must be used — it can minimize or eliminate the environmental benefits as well.

To avoid this, managers, service providers and BSCs can institute a regular maintenance program using diamond polishing pads or tools.

Typically, pad systems are used for existing polished floors that have been ignored but still have a surface that may be brought back up to a high-gloss luster.

In most cases, service providers and BSCs may work progressively through a system, beginning with an 800-grit pad and then moving along to 1,500- and 3,000-grit pads during regular maintenance programs, ultimately reviving the shine.

Conversely, some managers, service providers and BSCs may face a situation where the concrete flooring is not revivable using a pad system.

In this case, they would use a progressive diamond-grit-blade system.

Through this process, cleaning professionals begin with a 25- or 100-grit diamond-impregnated concrete tool to grind down the top layer of concrete.

After revealing the substrate, they will then work through a system comprising five polymer blades ranging from 100 to 2,000 grit.

Once this stage is complete, the concrete floor will have a shine similar to what customers typically see in a retail environment.

From here, cleaning professionals may maintain the polished concrete floor using a 3,000-grit diamond-impregnated pad with either water or a neutral cleaner to encourage more efficient green cleaning.

In the past, these systems were available only for use with heavy and often costly machinery designed specifically for concrete floor care.

These machines were large and complicated to use, and usually required specialized training.

Today, diamond-grit blades have been developed that can be used with a conventional floor machine, making this a more cost-effective option that requires less training and — because it eliminates the use of harsh chemicals and polishes — is more environmentally preferable as well.

Lucrative Add-on Service

The use of concrete as a finished flooring material is growing and, due to its many cost and environmental benefits, we can expect its use to increase in the future.

Although on a daily basis it can be easy to clean and maintain, facility managers and service providers should realize that concrete floor care, especially for a decorative concrete floor, can become much more involved.

New technologies such as diamond-grit blades are making concrete floor care easier and more cost-effective.

And, for astute BSCs, this can be a lucrative add-on service as well.

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