



## The Hard Questions

### Highlights of a presentation on sustainable hard-surface flooring and caring for hard-surface floors.

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One of the many benefits of my career is that I occasionally get to make presentations to cleaning professionals, building managers, green advocates and others regarding green cleaning: How to make cleaning healthier for people and more effective while reducing its impact on the environment. One of the things I value most is that while those attending these talks typically come to learn things that will help them green their facilities, I too can learn quite a bit — especially about their cleaning needs and challenges.

Typically, this occurs during the question-and-answer period after my presentation. And the topics that now tend to get the most queries and generate the most concern are often about green floors and green floorcare.

Here are some of the key points from a recent presentation regarding green floors and floorcare, along with some of the questions and answers that followed.

#### **What are green floors?**

When I talk about green floors, I am typically referring to hard-surface floors.

Some of the key components of a green floor include the following:

- The floor is made from renewable or recycled content.
- The floor is itself recyclable.
- No environmentally harmful ingredients are used to manufacture the floor; additionally, the manufacturing process itself is environmentally responsible.
- The floor is durable and long lasting; in most cases, it should last as long as a conventional hard-surface floor covering.
- The floor is installed in an environmentally responsible manner; specifically, installation uses products that have few, if any, volatile organic compounds (VOCs) that can negatively impact indoor air quality.

Additionally, because the categories of green and sustainable are now merging, the green floor should be manufactured in an “enlightened” company that is socially responsible and embraces environmentally sound practices in its own operations. Further, packaging and distribution of the product should address sustainability issues. For instance, some end users now prefer to work with local vendors to reduce the amount of fuel necessary to transport flooring materials.

#### **What are some examples of green floors?**

There are many types of green floors, and it often depends on how innovative the facility wishes to be as far as which one to choose. For instance, one very high-tech building in Chicago installed restroom floors made from reprocessed broken glass and floor tiles. It then used recycled egg cartons for partitions and to form the molding along the base of the walls. However, typically when I discuss green floors I am referring to the following:

- Bamboo, which is actually made from a grass and considered to be exceptionally durable; moreover, it often looks very similar to traditional hardwood flooring.
- Cork, which has a softer feel and is fire, rot and termite resistant.
- Conventional hardwoods that have been grown in managed forests, where new trees are planted when older trees are cut down.
- Rubber, often obtained from recycled tires.
- Concrete, a somewhat controversial green flooring since it often requires considerable fuel and energy to make and transport.

### **Can you use conventional floorcare products on green floors?**

The answer is yes, but should be a very big no. Yes, in most cases you can use conventional floorcare strippers, restorers and finishes when or where necessary. However, this can defeat the whole purpose of installing a green floor.

Several years ago, Dr. Greg Norris of the Harvard School of Public Health reported that “the amount of VOCs emitted using [conventional floorcare chemicals] from a single application is comparable to the total amount of VOCs a green floor will emit over its entire lifetime.”

This is why green floorcare — in fact, all green cleaning — is only as effective as its weakest link. Green cleaning requires that all products and materials used in the cleaning process, including the maintenance of floors — strippers, sealers, finishes and restorers — be proven green by being green certified.

Why? What is in conventional floorcare products that make them so detrimental to the environment?

Before answering this, I want to say that conventional floorcare products have served us well. Several are high performing and have helped maintain floors exceptionally well over the years, and the finishes can provide the high-gloss shine that many end customers insist on.

However, many do contain high levels of VOCs, as Dr. Norris referenced earlier; 2-butoxyethanol, now considered a carcinogen; zinc and other metals to produce that high-gloss shine; petroleum by-products and other nonrenewable ingredients; along with other ingredients that can be potentially harmful to human health.

This definition from Stephen Ashkin, one of the cleaning industry’s leading green cleaning advocates, will possibly clarify what green floorcare is all about: Green floorcare involves cleaning, polishing and maintaining floors with chemicals, products, tools and equipment designed to have a reduced impact on health and the environment when compared to conventional products used for the same purpose. Tools, chemicals and other floorcare equipment that do not meet these criteria should not be used on a green floor.

### **Are there green equivalents to these conventional ingredients?**

I would have said yes had I been asked this question five years ago. However, I would’ve been forced to admit many green products can be more costly and the performance levels, compared to conventional floorcare chemicals, can vary. However, this is not necessarily the case today. Some green cleaning chemical manufacturers have invested considerable time, energy and funds into not only improving the performance level of these products but, in the process, have lowered the costs to produce the products and passed the savings on to the end customer.

## **How can I select green floorcare products?**

I am asked this frequently, and there are actually two simple answers.

First, look for products that are green certified by an established, respected certification organization. This means the product has been independently tested to meet specific standards that prove it is green. Once certified, the certification mark will be proudly posted on the product's label.

Second, find a green-astute janitorial product distributor. Would you purchase a high-definition television from a salesperson who specializes in selling washing machines? How about a car from a travel agent? Clearly not. In the same vein, a green-knowledgeable distributor will know what green cleaning is all about, including what products work best in which situations, meet your specific needs and perform best on different types of surfaces. Very often these distributors work with manufacturers that make only green cleaning products as opposed to manufacturers that market green products as a sideline.

## **What about tools and equipment? What roles do they play in green floorcare?**

Excellent question. Remember earlier I said that green cleaning requires all products to be green. This applies to the tools and equipment as well.

One way to select green floorcare tools and equipment is to see if they meet the requirements of LEED-EBOM 3.7. In general, this refers to equipment that uses less water, chemicals and energy compared to older or conventional machines.

The floor machine specifically should have a vacuum system and other features to capture and hold impurities generated in floor cleaning so they do not become airborne. Additionally, it should be quiet — the noise level must not exceed 70 decibels — and ergonomically designed with reduced torque and vibration. Remember, green cleaning is as much about protecting the health of the cleaning worker, the building occupants and visitors as well as the environment.

## **What's on the horizon for green floors and floorcare?**

I honestly believe we are seeing a new industry blossom. Nearly all of the floorcovering manufacturers are getting much more environmentally conscious. They realize the old ways of manufacturing products are not only unsustainable, but also they no longer make economic sense. Alternatives that are greener and more sustainable are becoming the only options available for these manufacturers.

Further, I believe the cleaning industry, and specifically floorcare, is going to grow much further and faster than anyone anticipated a few years back. Now end-use customers are going to look for and select proven green cleaning products for all purposes and only accept non-green products when none are available or their performance or costs are unacceptable. Fortunately, there are fewer and fewer situations where this is necessary.

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