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A Key Component to Green

Staff Writers

Stopping dust, soils and contaminants before they enter a facility helps reduce the need for cleaning and enhances indoor environmental quality.

Last October, a jan/san focused buying group announced they had developed a "Green Program" to help educate their members on Green cleaning and what it entails. In collaboration with several of the industry's leading experts on the use of environmentally preferable products and practices, the program is designed to help distributors - and their customers - take a "big picture" approach to Green cleaning.

"We want our members to clearly understand what Green cleaning is all about so that they can advise their customers on how to incorporate Green cleaning into their facilities and take advantage of its health, productivity and cost-saving benefits," says Mike Nelson, vice president of marketing for Pro-Link, Canton, Mass. "But, some components or strategies involved in Green cleaning are often mis-understood or simply not realized. That's the reason for the big picture approach."

According to Nelson, an often underemphasized area is the need for high-performance matting systems, which is a key component in Green cleaning. "Stopping dust, soils and contaminants before they ever enter a facility helps reduce the need for cleaning, helps enhance indoor environmental quality, and should be at the heart of any Green cleaning program," he says. "This is why high-performance matting systems are often referred to as a 'source control' strategy."

Often, distributors and their customers overlook the immense impact that outdoor sidewalks, parking lots, entries and other surrounding areas can have on the health and appearance of the indoor environment. But, as much as 90 percent of the dust and dirt that enters a facility "walks in" through building entries, Nelson says. And, studies show that up to 24 lbs. of dirt can be tracked in by just 1,000 people coming through an entrance over a 20-day work period.

In addition, facility managers that successfully implement a high-performance matting system as part of a Green cleaning program can lower their overall maintenance costs and keep their facilities cleaner and healthier for longer periods of time. Very simply, effective matting helps keep chemical use to a minimum, according to Nelson. However, to better understand how this source control strategy works, he adds, an education on high-performance matting systems is required.

Steps to success

"Entry mats have been around for literally decades," says Christopher R. Tricozzi, vice president of sales and marketing for Crown Mats & Matting, Fremont, Ohio. "However, in many ways, it has just been in the past few years that they have been viewed as a source control system to help protect the indoor environment and an integral part of Green cleaning."

According to Tricozzi, distributors should stress matting systems as a facility's chief line of defense against contaminants. Following this analogy, the line of defense can be broken down into three core regiments: scraper mats, wiper-scraper mats and wiper mats.

- **Scraper mats:** These are the first line of defense. Scraper mats should be placed outside a facility and at all major entry points. Approximately five feet of scraper matting is required to effectively trap as much as 50 percent of the soil and moisture found on shoes. Scraper mats serve as the first five feet of matting at a building entry.
- **Wiper-scraper mats:** These mats are the second line of defense to further remove soils and moisture that are not captured by the scraper mats. They are typically found directly inside entry doors of a facility. These can be used alone, without a scraper mat; however, they need to be of greater length in order to be effective. Approximately five feet of wiper-scraper matting is required.
- **Wiper mats:** The final line of defense is the wiper mat, which further removes light soils and dust and helps to dry moisture from shoes. Wiper mats include five feet of matting. If used alone, wiper mats are less effective.

"One of the questions that almost always comes up is how many total feet of matting a facility needs," says Tricozzi. "That's where the 'Rule of 15 ft. comes in."

Tricozzi explains that the Rule of 15 ft. is based on the following three principles:

- Fifteen feet of matting is normally required to prevent the majority of soils from entering a facility.
- Fifteen feet of matting allows each foot to contact the mat at least three times.
- At least 15 ft. of matting is required to ensure that soil and moisture are stopped at the door.

"Often, facility managers think this is a lot of matting," adds Tricozzi. "But just remind them that preventing a single pound of soil from entering a facility can save them as much as \$500 in cleanup costs, and it is estimated that 1,500 people walking in an entry without a high-performance matting system will likely remove 42 percent of a floor's finish."

Maintenance from day one

Once a customer invests in a high-performance matting system, the distributor must take the time to show them how to install and maintain each type of mat, according to Tricozzi. For instance, he suggests that mats be unrolled and flattened out a few days before they are delivered to the customer. "This helps flatten edges and corners to prevent accidents," he says. "They should also be vacuumed to remove the shedding and 'fuzzing' that is normal on new mats."

Additionally, Tricozzi says that some rubber matting systems may have an oily or sticky film. However, this is not a defect; it is a releasing agent inherent to these mats. "Simply hand-wash using a water-based carpet detergent or shampoo," he says.

Once installed, high-performance matting systems must be regularly vacuumed - often several times per day in heavily trafficked areas - to keep them working effectively, according to Tricozzi. Periodically, they should also be inspected for tears and cleaned with a carpet extractor to remove deeply embedded soils. "Remind your clients to always follow the [mat] manufacturer's instructions," he adds. "Certain types of chemicals may need to be avoided as should solvent-based cleaners."

Safety, too

As essential as high-performance matting systems are to a Green cleaning system, it must always be remembered that effective matting systems provide ample safety as well. Slips and falls continue to be one of the leading causes of injury in the workplace setting. According to Wausau Insurance, over 30 percent of workplace injuries are slip-related and can be prevented by an effective matting system. The average cost for these injuries, in health and work-related costs, exceeds \$12,000 per occurrence, according to the insurance company.

"Incorporating a matting 'line of defense' into your customers' facilities helps protect their health and safety," says Tricozzi, "and without question, makes you - their distributor - a much more central part of [their] daily business operations." CFM

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Disposal Issues

One of Green cleaning's goals is to protect the environment, not only regarding the use of cleaning chemicals and products, but their disposal as well to help reduce the need for landfills. The key issue with mats is a mat's performance life. High-performance matting systems, such as those described in this article, can have a performance life of many more years than conventional mats.

Some manufacturers of high-performance products have extended warranties of up to six years. This compares to conventional and some less-

expensive mats that may have only a 90 to 180 day performance life and will need to be replaced much more frequently, adding to landfills. This means high-performance matting systems are not only Green when used, but environmentally preferable at the end of their life cycle as well.

- Christopher R. Tricozzi

The Dirt on Dust

- It is estimated that nine out of 10 computers fail due to indoor dust.
- At least one in five Americans are allergic to some components of dust.
- A buildup of less than a tenth of an inch of dust in a heating and cooling system can decrease efficiency by more than 20 percent.
- Eighty-six billion pounds of dust settles on the United States every year.
- Studies show that 1 sq. yd. of commercial grade carpeting can accumulate 1lb. of dust in one week.
- The estimated cost to remove 1 lb. of dust is \$500.
- Studies indicate that people working in dusty environments have a greater risk of lung cancer, heart attack, chronic asthma, allergy problems, depression, nervous problems and skin problems.
- Dust particles on floors and other surfaces absorb or can react to many toxic gas matters, which cause the transfer of these toxic materials.

- Mike Nelson

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