

## **Improve Indoor Air Quality With Hard Floor Care**

CM/Spotlight: Hard Floor Care

By: Jessica Holmes

Thousands of microscopic pollutants exist in the air - especially indoors. The U.S. Environmental Protection Agency (EPA) states that indoor air can be 10 to 100 times more polluted than the air outside.

In large, high traffic buildings like offices, health care facilities and university classrooms, allergens such as microscopic dust mites, pollen, mold spores, cleaning chemical residues and other dust and pollutants are constantly being churned throughout the space.

Poor indoor air quality (IAQ) is often a leading factor in several short and long-term health and cost issues with building occupants, including absenteeism, asthma, fatigue and lost productivity.

The situation is even worse for janitorial workers who are on the frontlines of the battle to eliminate harmful particulates. Studies indicate that cleaning workers suffer from asthma at twice the rate of other occupations.

IAQ is a serious issue -- and nothing can improve or harm it more on a daily basis than maintenance -- especially in hard floor care.

Gravity, after all, causes particulates to land on any available surface. Carpets act as a dust sink, so pollutants stay trapped until removed by a high-filtration vacuum. With hard floors, any movement in airflow causes pollutants to fly back into the breathing zone.

Maintenance departments can improve IAQ in their hard floor cleaning routines in a way that cuts down on health risks for the cleaning staff and building occupants.

### **Maintaining Hard Floors for IAQ**

Cleaning the air in a high square footage building is a challenge. Because indoor pollutants affect each person differently, IAQ levels are difficult to pinpoint. Maintenance crews should track how soon dust bunnies form and how often dusting is needed. They should also evaluate the performance capabilities of each tool in their cleaning arsenal.

Commercial buildings typically utilize commercial carpeting and hard floor surfaces - including linoleum, resilient, tile, hardwood and other options - in nearly equal measure. Since the majority of dust, allergens and pollutants will concentrate on these floors, IAQ should be factored into the daily floor maintenance routine, especially on high-traffic hard surfaces.

One easy step to take is to incorporate heavy-duty entry mats. Studies indicate that 30 percent of outside dirt is deposited in the first three feet, and 90 percent is tracked off in the first 25 feet. A maintenance team should vacuum entry mats and all other high-traffic areas daily and rotate all other floor surfaces into a mix on a weekly basis.

Push brooms and dust mops never truly eliminate allergens from a building. Instead, they tend to move dust to new locations in the same space and send microscopic particles back into the air. They also redistribute dirt and fine particulate on and into the floor, leaving scratches and dulling a high-gloss finish.

The development of a suction-only, high-filtration vacuums is helping to maintain the appearance and longevity of hard surface flooring while improving IAQ as it relates to hard surface maintenance.

## **High Filtration Means Higher IAQ**

Not just for carpets anymore, vacuums are improving both building IAQ and the productivity of maintenance teams on hard floors. Instead of switching between brooms and dust mops on hard floors and upright vacuums on carpets, many high-performance cleaning teams are opting to use backpack vacuums on both. These machines operate using a high-powered motor for advanced suction and eliminate beater bars, brush heads and other moving parts near the floor so that hard surfaces don't become scratched or damaged. This powerful suction brings microscopic dirt into a multi-level filtration system, which traps 99.9 percent of particulates down to one micron in size.

High-efficiency particulate air (HEPA) filtration systems can boost this rate even further and capture 99.97 percent of particulates down to 0.3 microns in size. Dust bunnies typically appear within 24 hours after a floor has been dust mopped, compared to 72 hours with a high-filtration backpack vacuum. Backpack vacuums also clean 52 percent faster than dust mops.

In order for the vacuuming routine to work as effectively as possible, establish a cleaning program to train employees on proper vacuum use and ensure certain tasks and areas are completed with work logs. Frequent cleaning and proper replacement of vacuum cleaner filters is also essential for maintaining effectiveness and saving money on repairs.

When comparing vacuums and other floor cleaning tools, look for a third-party seal of approval or substantive research or additional information that explains why the product is indoor air friendly.

## **Asthmatic Custodian Makes the Switch**

Tina Enos, a custodian at the University of Michigan (UM), has a personal take on the effect of poor IAQ in the workplace. An asthmatic, Enos regularly suffered attacks from the dust and allergens that became agitated and airborne during and after cleaning. An asthma sufferer often acts as a human detector for poor IAQ. "I am a severe asthmatic and dust is the biggest factor that can trigger an asthma attack for me", says Enos. Recently, UM began the transition to a systemized Team Cleaning program; their equipment also transitioned.

UM was using traditional cleaning tools like Kentucky mops, upright vacuums and dust mops, which were replaced with high-powered, high-filtration backpack vacuums and micro fiber tools. Enos volunteered to be one of the four janitors in the pilot for the new cleaning program. She reports that since the switch, "asthma attacks from dust in the air have become almost nonexistent. And dust bunnies? Their a thing of the past. Air quality, in my opinion, has improved."

The new machines - combined with the systemized cleaning program - also gave the maintenance team the ability to clean up to 10,000 square feet an hour, saving time, improving thoroughness and increasing efficiency. In any scenario, improving IAQA takes daily concentration on the microscopic details of a maintenance routine - literally. By focusing on indoor air, however, you can boost cleaning standards, productivity and even the health of building occupants and your cleaning team.

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