



Ask the Expert

How much do air filters impact a building and its occupants?

Air filters have two big jobs to perform: Protect HVAC equipment and protect people. If your main priority is protecting equipment, you'll probably use an air filter with a MERV rating between 8 and 10. These remove most of the bigger particles that can clog up and damage HVAC coils over time, but they miss essentially all of the dangerous sub-2.5-micron particles.

If you're serious about protecting

the people within your building, you'll use air filters with a MERV rating of 15 or higher, like the GeoPleat® or the FP V-Bank Minipleat from Filtration Group. Air filters like these filter the air more completely, removing approximately 85% of sub-2.5-micron particles. This means they do a much better job of removing the dust, bacteria, and smoke particles that can carry viruses and otherwise damage occupants' health.



Michael Bruce,
Vice President of Marketing and Engineering, Filtration Group

While many HVAC professionals are used to thinking about their systems' efficiency, many don't think enough about indoor air quality, according to **Michael Bruce**, vice president of marketing and engineering for **Filtration Group-HVAC**. Filtration Group ensures customers understand the full picture, especially the effect of particles that are 2.5 microns in diameter and below. These particles, common in smoke and other substances, are so small they bypass the body's natural respiratory filters and can remain in the lungs forever or even reach the bloodstream. Either destination has been linked to long-term health problems. Bruce recently talked with us more about some of air filters' impacts.

The USGBC recognizes the importance of high-quality air filtration by awarding LEED points for HVAC systems using MERV 13 or higher filters.

For even more demanding applications, HEPA and ULPA filters are able to remove at least 99.97% of sub-2.5-micron particles. For locations where nuisance odors need to be removed (like restaurants and hotels), gas phase filters use activated carbon to remove the volatile organic compounds that cause many unwanted smells. Targeted gas phase filters can even be used to remove specific unwanted gases like the formaldehydes in diesel exhaust with the addition of impregnated

chemistry to the activated carbon.

Beyond the health of building occupants, air filters can affect the wider environment as well. A high-quality air filter conserves precious energy over the course of its life because the air pressure required to push air through starts lower and stays lower. Filtration Group even offers sustainable filter options like the self-supporting NOVAPLEAT®, which, because it is made without metal or plastic, can be fully incinerated to eliminate landfill waste.



Read more from Filtration Group in the fall issue of *gb&d* when they **explore why you should rethink your commercial air filters.**

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