

How do MERV ratings affect Indoor Air Quality?

By Jon Sader

Poor indoor air quality inside the home can cause or aggravate health problems, especially in children and the elderly. Indoor air quality problems are caused by products that off-gas VOC's and other contaminants into the home, as well as dust and particles such as pet dander or pollens that become airborne. If you have a home with a central air conditioning system, chances are you can reduce some of these airborne contaminants by better understanding the differences between existing air filters on the market. Three things are important to remember about improving indoor air quality:

1. Remove sources of airborne contaminants by choosing products that don't off-gas harmful chemicals.
2. Making sure that fresh air is exchanged in the house, helping to dilute contaminants and carrying pollutants out of the house.
3. Use high quality air filters on your HVAC system, and change them out as recommended.

The most important thing to know about an air filter, other than its size, is its Minimum Efficiency Reporting Value rating, or simply MERV. The higher a filter's MERV rating, the smaller the particles that will be removed from air circulation. MERV ratings are between 1-20.

- MERV 1-4
 - Will prevent circulation of: pollen, dust mites, sanding dust etc.
 - Typically used in window air conditioning units
- MERV 5-8
 - Will prevent circulation of: mold, spores, pet dander, etc.
 - Very common in homes and commercial buildings
- MERV 9-12
 - Will prevent auto emissions, lead dust, welding fumes, etc.
 - A very good residential and commercial air filter
- MERV 13+
 - Will prevent all bacteria, tobacco smoke, paint pigments, etc.
 - Will keep the air quality nearly pristine
 - Can be used in homes but it is more common in hospitals and surgery areas



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The air in your home may be causing harm to you and your family without notice. Help thwart this issue by installing properly sized MERV filter(s) throughout your home.

****Some higher MERV filters may hinder the performance of HVAC systems. Make sure you verify your HVAC system's maximum MERV filter requirement before installing it. If you have questions, contact your HVAC contractor, or the manufacturer of your HVAC system.**

