

breathe easier FILTRATION

improving indoor air quality with Filtrete™ Filters from 3M



3M is proud to be
an educational
partner with the
American Lung
Association Health
House® program



improve indoor air



Filtrete™ Filters are recognized by the American Lung Association Health House® program

The American Lung Association Health House® program develops guidelines for designing and constructing homes that are healthier and more energy efficient. Through its Health House program, the American Lung Association has established indoor air quality guidelines in an effort to help people choose products that will help improve the quality of the air in their homes.

3M is proud to make an annual contribution to the American Lung Association in order to help fund an educational campaign designed to generate awareness and educate people about indoor air quality issues. This exclusive educational partnership recognizes the American Lung Association's mission of preventing lung disease and promoting lung health as well as 3M's goal of developing innovative technologies to address indoor air quality concerns.

The American Lung Association does not endorse products.



think about it



What's in our air and why should we care?

The Environmental Protection Agency (EPA) has identified indoor air quality as one of the top five most urgent environmental risks to public health. This is because indoor air pollution levels may be 2–5 times higher than outdoor levels and people are spending up to 90% of their time indoors.

Today's tighter, better insulated homes can limit natural ventilation and can trap airborne contaminants, such as dust, pollen and smoke inside, creating a compelling need for better filtration.

The need is even greater for the 15 million Americans with asthma, and the more than 35 million with hay fever and other allergies, as estimated by the American Lung Association (ALA) and the American Academy of Allergy, Asthma and Immunology. Further, the ALA and the National Center for Health Statistics say that between 1982 and 1994, asthma rates rose 61% in adults, and for children it climbed 72%.

With the increasing concern and awareness of indoor air quality, 3M developed Filtrete™ brand Air Cleaning Filters

These one-inch disposable filters have permanent electrostatically charged fibers that capture more microparticles other filters can miss—as much as 30 times more—for up to three months of performance! Changed regularly, Filtrete filters have the optimal balance of air flow and capture rate.

Whether they're allergy sufferers, pet owners, smokers, or non-smokers, people want cleaner air and less dust in their homes. The Filtrete filter line of high-end electrostatic filters is a market leader in the one-inch disposable filter industry.

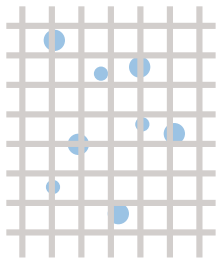
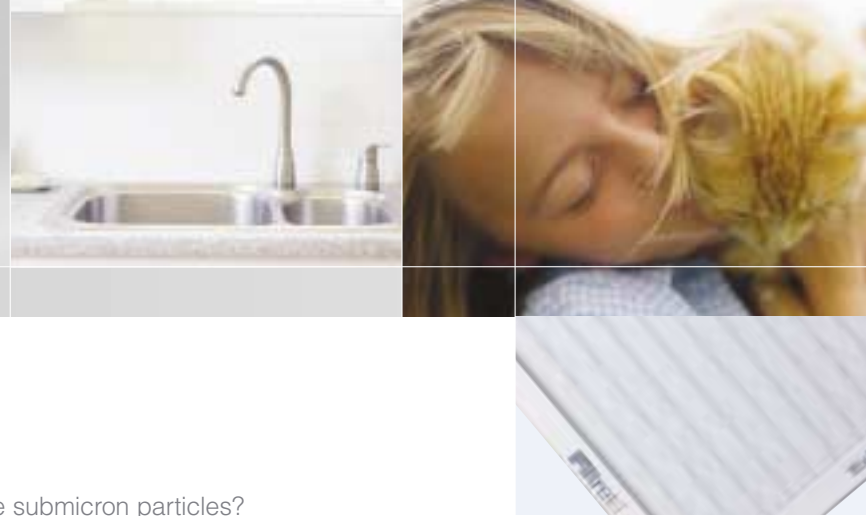
Before choosing a filter, you may want to consider:

- Type of Filter
- Filter Performance Ratings
- Pressure Drop
- Efficiency
- Frame Strength
- Disposability

Here's why...



consider this...



ORDINARY
FIBERGLASS FILTER

Type of Filter

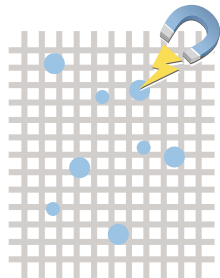
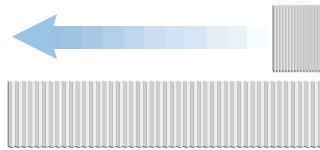
Different types of filters have different capabilities:

Is it an ordinary fiberglass filter?

Fiberglass filters have less media than pleated filters. The media is also loosely woven making them ineffective at trapping smaller particles.

Is it pleated?

Pleats increase the amount of media in the frame of the filter. More media means more surface area where particles can be captured.



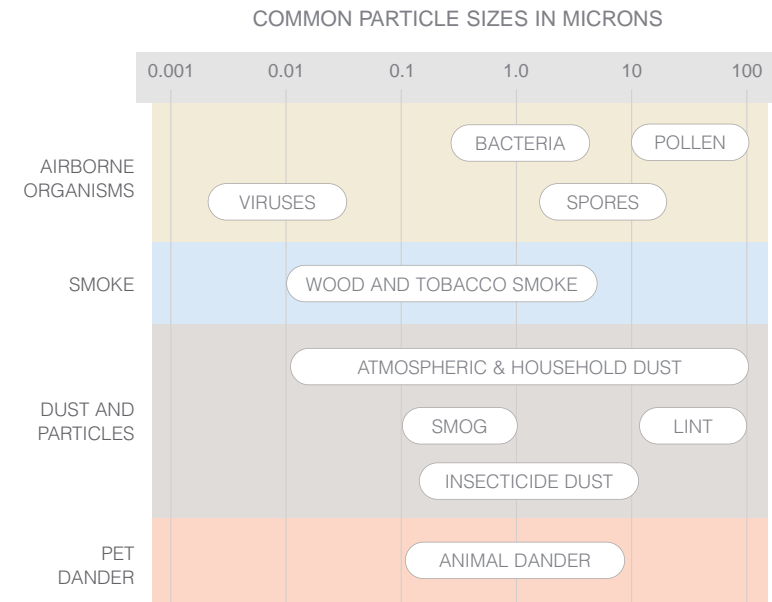
ELECTROSTATICALLY
CHARGED FILTER

Is it electrostatically charged?

Electrostatically charged fibers act like tiny magnets to attract and capture particles that can pass right through fiberglass filters or other noncharged pleated filters.

What are submicron particles?

Those which are smaller than one micron. Of all particles in the air, 99% are less than one micron in size.



see the difference



Filter Performance Ratings

What is a filter rating?

A filter performance rating compares one filter to another and describes a filter's ability to capture particles from the air.

Filtrete™ Filters are highly efficient at capturing particles between 3 and 10 microns.*

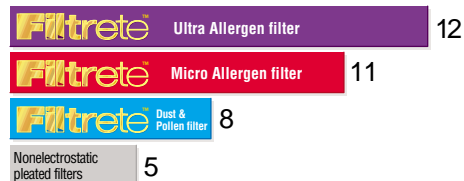


* Based on ASHRAE 52.2 E3 (3 to 10 microns) Minimum Composite Efficiency

MERV

The Heating, Ventilating and Air Conditioning (HVAC) industry uses the ASHRAE 52.2 Standard, which assigns a Minimum Efficiency Reporting Value (MERV) to a filter.

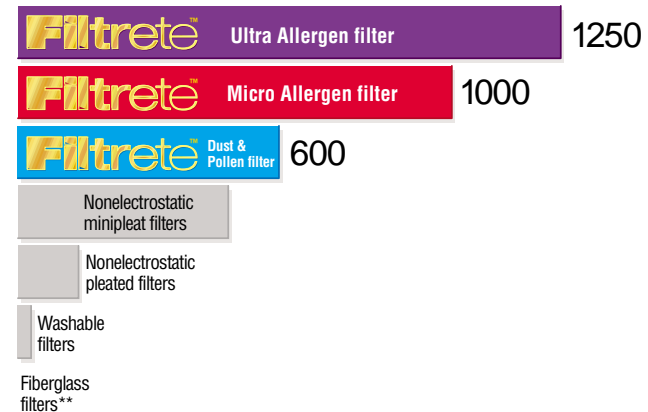
One part of MERV, the E3 rating, reports a filter's ability to capture large particles between 3 and 10 microns. A larger MERV means better filtration efficiency. This value is helpful in comparing the performance of different filters but it is not adequate alone because particles greater than one micron make up only about 1% of the contaminants in your indoor air.



3M MPR

Another part of MERV, the E1 rating, addresses submicron particles. 3M calls this the MPR or Microparticle Performance Rating. It measures a filter's ability to capture particles between 0.3 and 1.0 micron. Based on independent laboratory tests, 3M's MPR measures a filter's ability to capture submicron particles that make up 99% of the particles in the air, such as bacteria, smoke and smog.

FILTRETE™ FILTERS CAPTURE MORE PARTICLES THAN ANY OTHER ONE-INCH, THREE-MONTH FILTER.*

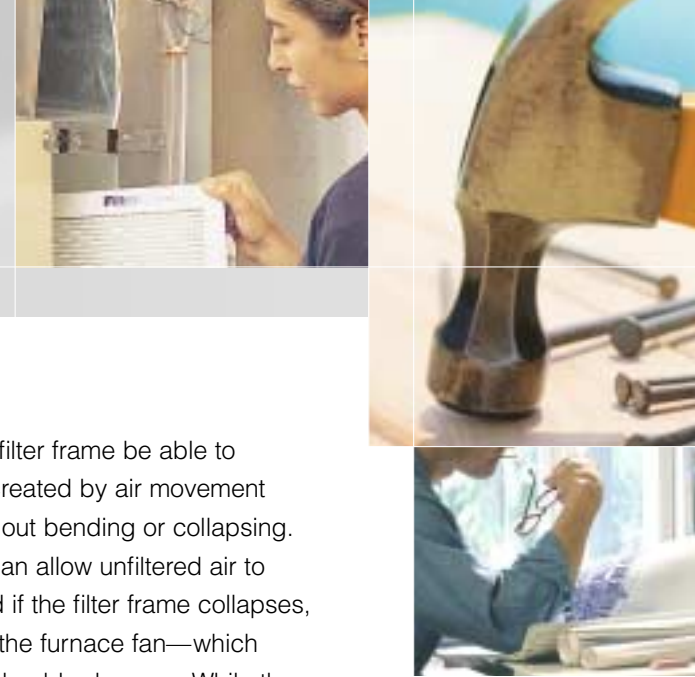


* Based on ASHRAE 52.2 E1 (0.3 to 1.0 micron) Minimum Composite Efficiency.

** Due to their poor performance, fiberglass filters cannot be measured by ASHRAE 52.2.

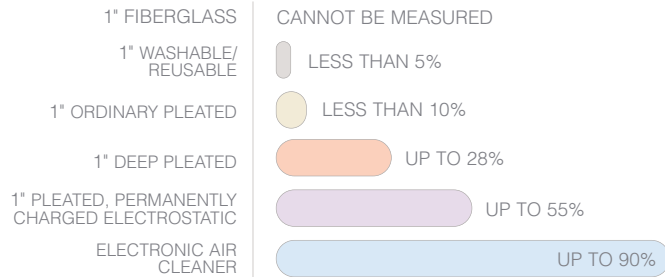
The Filtrete™ Ultra Allergen Filter provides the highest level of filtration of any one-inch, three-month product.

what to look for



Efficiency of Different Types of Filters

The chart below shows how 1" disposable filters compare to deep pleated and electronic air cleaners at capturing particles 0.3 to 1 micron in size.*



*Based on ASHRAE 52.2 E1 (0.3 to 1.0 micron) Minimum Composite Efficiency.

Pressure Drop

When evaluating air filters, it is important to consider pressure drop. Pressure drop is a measure of the filter's ability to allow air flow through the filter media and is also an indicator of filter life. A lower pressure drop number means better air flow. The following chart shows the filter types and range of pressure drops.

FILTER TYPE	PRICE RANGE	PRESSURE DROP**
FIBERGLASS	\$.50 – \$2	.05 – .08
WASHABLE/REUSABLE	\$25 – \$100+	.14 – .29
ORDINARY PLEATED	\$3 – \$6	.14 – .24
DEEP PLEATED	\$20 – \$50+	.08 – .10
PLEATED, PERMANENTLY CHARGED ELECTROSTATIC	\$8 – \$20	.13 – .35
ELECTRONIC AIR CLEANER	UP TO \$600	.03 – .05

**Pressure drop measured in inches of water at 300 fpm.

Frame Strength

It is important that a filter frame be able to withstand pressure created by air movement through the filter without bending or collapsing. If a frame bends, it can allow unfiltered air to bypass the filter. And if the filter frame collapses, it can be drawn into the furnace fan—which could result in considerable damage. While the true test of a filter's frame strength would be in your furnace, a simple inspection at the store should give you an idea of a filter's sturdiness.

Disposability

Factors that should be considered include:

- How long the filter will last
- What type of maintenance it will require

Filters are generally disposable, washable or vacuumable. Follow the manufacturers' guidelines for how often to change, wash or vacuum your filter. Note that cleaning a washable filter requires you to handle the dirty filter—exposing you to dirt and any captured allergens*. A disposable filter results in much less exposure—just put it in the trash.

*Vacuuming a filter can redistribute the captured particles back into the air via the vacuum's exhaust system.

filter comparison



Built Into Furnace
ELECTRONIC
AIR CLEANER

1" FIBERGLASS
OR POLYESTER

1" PLEATED

1" WASHABLE/
REUSABLE

1" PLEATED,
ELECTROSTATIC,
HIGH PERFORMANCE

4" to 6"
DEEP PLEATED

CAPTURES

- Large particles such as lint and dust

- Large allergens such as pollen, pet dander and mold
- Large particles such as lint and dust

- Large allergens such as pollen, pet dander and mold
- Large particles such as lint and dust

- Bacteria and particles that can carry viruses
- Microscopic allergens such as smoke, dust and smog
- Large allergens such as pollen, pet dander and mold
- Large particles such as lint and dust

- Large allergens such as pollen, pet dander and mold
- Large particles such as lint and dust

- Bacteria and particles that can carry viruses
- Microscopic allergens such as smoke, dust and smog
- Large allergens such as pollen, pet dander and mold
- Large particles such as lint and dust

BENEFITS

- Inexpensive
- Disposable
- Protects furnace motor
- Traps large particles

- Inexpensive
- Disposable
- Protects furnace motor
- Typically captures slightly more particles than fiberglass or washable filters

- Designed to be washed and reused
- May last a few years before needing to be replaced
- Protects furnace motor
- Traps large particles

- Disposable
- Surpasses efficiency of all other 1" air filter types
- Electrostatically charged fibers act like tiny magnets, attracting and capturing small particles that other filters miss
- Alternative to costly, permanent electronic air cleaners
- Protects furnace motor

- Replace only once or twice a year
- Some brands approach the performance of permanently charged electrostatic filters

- Permanent fixture
- Very effective at removing particles

CONSIDERATIONS

- Requires changing monthly
- Ineffective at trapping smaller particles that can be inhaled

- Changing every month recommended
- Ineffective at capturing microscopic allergens

- Expensive
- High-maintenance
- Ineffective at trapping smaller particles
- Particles removed during filter cleaning can end up back in the home environment

- Requires changing every three months
- More expensive than traditional disposable filters

- Heating and cooling system must be specially adapted to accept filter
- Broad range of efficiency levels between brands

- Very expensive
- Must be disassembled and cleaned regularly
- Requires electrical connection
- May emit ozone

the right choice



The Filtrete™ Ultra Allergen Reduction Filter has been recognized as the number one electrostatic filter in a leading consumer publication.



Filtrete™ Ultra Allergen Reduction Filter

For people who want a superior performing filter and who may suffer from respiratory illness, asthma and/or allergies.



Filtrete™ Micro Allergen Reduction Filter

For people who want a filter that will help make the air in their home cleaner by reducing allergens and microparticles.



Filtrete™ Dust & Pollen Reduction Filter

For people who are interested in reducing the amount of dust in their home. It can also be used seasonally to reduce allergy aggravating pollen.

The Filtrete™ Filter program starts with an offering of electrostatically charged filters designed to meet your individual needs.

PERFORMANCE CHARACTERISTICS	3M MPR 1250 MERV 12	3M MPR 1000 MERV 11	3M MPR 600 MERV 8
OUTPERFORMS ALL OTHER 1" FILTERS	■		
25% MORE EFFICIENT THAN THE FILTRETE MICRO ALLERGEN FILTER	■		
BETTER AIRFLOW THAN THE FILTRETE MICRO ALLERGEN FILTER	■		
90% EFFECTIVE AT CAPTURING LARGE ALLERGENS LIKE MOLD SPORES AND PET DANDER FROM THE AIR PASSING THROUGH THE FILTER	■		
CAPTURES BACTERIA AND THE PARTICLES THAT CAN CARRY VIRUSES	■		
OUTPERFORMS ALL COMPETITORS' 3-MONTH, 1" FILTERS	■	■	
MEETS THE AMERICAN LUNG ASSOCIATION HEALTH HOUSE* INDOOR AIR QUALITY GUIDELINES	■	■	
CAPTURES MICROSCOPIC ALLERGENS LIKE DUST, SMOKE AND SMOG	■	■	
OUTPERFORMS WASHABLE AND NONELECTROSTATIC 1" FILTERS	■	■	■
CAPTURES LARGE ALLERGENS LIKE POLLEN, PET DANDER AND MOLD	■	■	■
CAPTURES LARGE PARTICLES LIKE LINT AND DUST	■	■	■
LASTS 3 MONTHS	■	■	■

more helpful tips

FOR ADDITIONAL
INFORMATION
ON AIR QUALITY
AND RELATED
ISSUES, VISIT:

www.lungusa.org
www.healthhouse.org
www.filtrete.com

For more helpful tips on improving the air quality in your home, the American Lung Association Health House® program and 3M offer two additional booklets: *Tips for Creating a Healthier Home* and *Tips for Healthier Home Remodeling*.

Both booklets can be obtained free-of-charge by:

Sending an e-mail with your name and address to:
3mfiltrete@3mservice.montagenet.com

Or calling 1-800-388-3458.

3M

**Construction and
Home Improvement
Markets Division**

3M Center,
Building 223-4S-02
St. Paul, MN 55144-1000
1 800 388-3458
www.Filtrete.com

*Your Authorized Filtrete
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*www.Filtera.com
888-933-0100 toll-free phone*

*Filtera stocks all sizes of 3M
Filtrete Filters for prompt delivery*



*Minimum 10%
Post-Consumer Fiber*

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