

MARKET SEGMENT BROCHURE: COMMERCIAL BUILDINGS

# ENVIRONMENTAL EXCELLENCE FOR YOUR BUILDING & TENANTS

GET LEED POINTS, IMPROVE YOUR AIR QUALITY AND  
SAVE ON ENERGY COSTS, ALL WHILE INCREASING  
TENANT SATISFACTION



**purafil**  
Filtration Group®



# ARE YOU GIVING TENANTS THE PLATINUM EXPERIENCE?



## IMPROVED INDOOR AIR QUALITY FOR A BETTER TENANT EXPERIENCE

Maintaining a clean and comfortable indoor environment for your occupants is essential to tenant satisfaction and retention, especially when you consider that one in three workers left a job due to building conditions. According to a Bloomberg work study, persistent, foul odors are the fourth most common complaint in commercial office buildings. This highlights why controlling airborne pollutants and contaminants is so important. But are you filtering for all the indoor sources of pollution? Odors can come from cleaning aerosols, printers, bathrooms, kitchens or other office supplies. These can all greatly reduce the indoor air quality. VOCs, furniture, formaldehyde, NO<sub>x</sub>, SO<sub>x</sub> and other harmful pollutants can not only create an unpleasant environment for tenants, it can compromise their health and safety, too.

***Purafil Solution: Odor Pleat, Purafilter HE, Purafil V-Bank, Bathroom Odor & Ammonia Blend***

## KEEPING OUTDOOR SOURCES OF POLLUTION OUTSIDE

You want your tenants to stay in your building, which is why you try to create an environment that is comfortable and conducive to their needs. You're keeping your building clean on the inside by addressing indoor pollution, but have you considered how outdoor pollution will impact your indoor air? Odors caused by pollution can come from traffic, loading docks or nearby industrial plants, which is both unpleasant *and* unhealthy.

***Purafil Solution: Outdoor Pollution Blend with Purafil V-Bank, Purafilter HE, Purafil Canisters***

## PURAFIL GETS YOU TO PLATINUM

Earning LEED® (Leadership in Energy and Environmental Design) certification requires buildings to be environmentally conscious and more energy efficient. One such way to do so is through improvements to HVAC systems and indoor environmental quality.

Implementing an effective HVAC strategy could net you more LEED points and allow you to save big on energy costs in the long run! This all works as a part of the overall design and creating a building that follows LEED guidelines.

***Purafil Solution: Front Access System (FSA), Side Access System (PSA), Drop-in Gas Phase Filters***

# BETTER BUILDINGS WITH PURAFIL



## DUKE ENERGY CENTER ACHIEVES PLATINUM STATUS

The Duke Energy Center in Charlotte, NC is a striking 48-story office building that sought out the prestigious LEED New Construction Platinum Certification. This is the best possible rating a commercial building can earn.

Purafil applied the Indoor Air Quality from ASHRAE Standard 62.1 (IAQP) procedure, which helped the center earn points towards its LEED certification for reducing energy use. By cleaning and recirculating the toilet exhaust with PuraGRID™ filters, they were able to reduce the amount of outside air required to replenish the air. This also allowed for cost savings on capital equipment expenses.

**The Duke Energy Center earned its LEED Platinum Certification while saving on capital equipment expenses and ongoing energy costs.**

Purafil, Inc. is the leading manufacturer of filtration media, scrubbers, and monitors that provide a safe and comfortable environment. Our products and solutions identify and remove harmful and unpleasant particles, gases, odors, bacteria, and viruses from the environment. The results are increased comfort levels, reduced energy costs, and confidence that your building will provide the ideal tenant experience.

# PURAFIL'S MEDIA ADVANTAGE

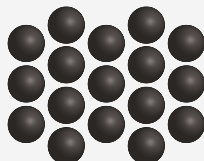
## WHEN ONE-SIZE-FITS ALL JUST DOESN'T WORK

Are you ready for a custom solution that thoroughly eliminates the gases that activated carbon leaves behind? A one-size-fits-all solution won't cut it, which is why Purafil specially engineered custom blends designed to address the unique problems you face while *permanently* removing gases—even the ones carbon can't remove. This is done through chemisorption, a process that chemically transforms gases into harmless solids that remain trapped inside the media.

### Problem Gases In The Air Stream



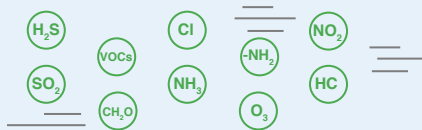
### Activated Carbon



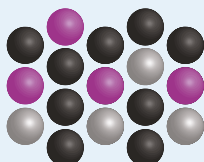
### Gases Carbon Fails to Eliminate:



### Problem Gases In The Air Stream



### Purafil Custom Media



### Purafil Peace of Mind



## JET & DIESEL EXHAUST BLEND:

Removes exhaust from local traffic and nearby vehicles, providing your tenants with a clean, healthy environment. The World Health Organization (WHO) shows that exposure to nitrogen oxides can cause irritation of the eyes, skin and respiratory system, headaches, difficulty breathing and asthma. This blend removes common exhaust gases including  $\text{H}_2\text{S}$ ,  $\text{NO}_2$ ,  $\text{SO}_2$ ,  $\text{HC}$ , VOCs and  $\text{CH}_2\text{O}$ .

## BATHROOM ODOR & AMMONIA BLEND:

Removes common bathroom odors—including urine, ammonia and chlorine—to protect occupants and provide an odor-free environment. The Center for Disease Control and Prevention cites coughing, eye irritation, burns on the throat, skin, eyes and lungs and even lung disease as common symptoms of ammonia exposure. This blend removes bathroom gases including  $\text{H}_2\text{S}$ ,  $\text{NH}_3$  and  $\text{-NH}_2$ .

## OUTDOOR POLLUTION & CORROSION BLEND:

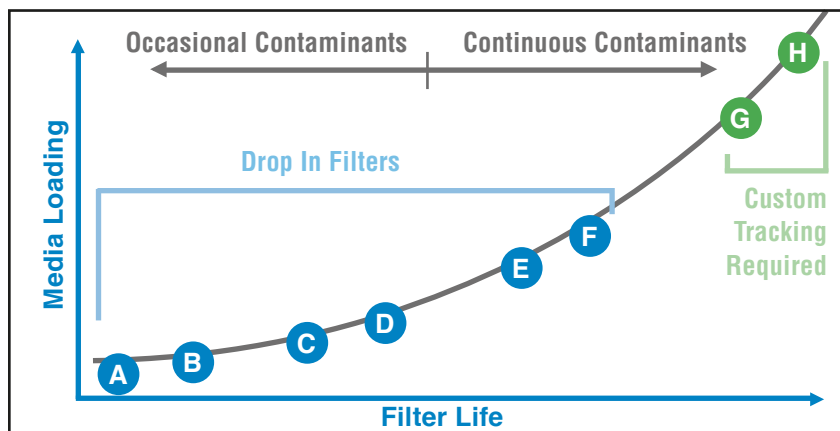
Eliminates pollution and contaminants to protect employees by ensuring a safe space, free from hydrogen sulfide. Hydrogen sulfide exposure can result in nausea, headaches, fatigue, coughing, eye and throat irritation and even unconsciousness, according to the US Department of Labor. This blend removes common gases including  $\text{H}_2\text{S}$ ,  $\text{NO}_2$ ,  $\text{SO}_2$ , VOCs and  $\text{O}_3$ .

## KITCHEN ODOR & SMOKE BLEND:

Captures smoke and common kitchen odors, including those resulting from burnt food, cheese, mold and tobacco. The EPA defines the effects of exposure to sulfur oxides as difficulty breathing, respiratory system problems and asthma irritation. It can also cause nose and throat irritation and excessive coughing. Fight against sulfur oxides with Purafil's custom media. This blend removes common kitchen gases including  $\text{H}_2\text{S}$ ,  $\text{NO}_2$ ,  $\text{SO}_2$ , VOCs and  $\text{Cl}$ .

## MEDIA LOADING BY FILTER

After you've decided which blend best suits your application, you can choose the media loading capacity that makes the most sense for your needs. We offer a wide range of filters to suit any filtration need.





# ADVANCED FILTERS FOR EVERY NEED

## Purafilter Odor Pleat



A

Excellent entry level gas phase filter for intermittent applications. Low Pressure drop keeps operating expenses down.

Media Loading up to	0.5 lb	0.2 kg
Pressure Drop 1"	N/A	N/A
Pressure Drop 2"	0.36 iwvg	89.7 pa
Pressure Drop 4"	0.21 iwvg	52.3 pa

## Purafilter Odor Pleat Plus



B

Low Pressure drop keeps operating expenses down. Get Purafilter Odor Pleat Plus for 50% more media loading.

Media Loading up to	1 lb	0.5 kg
Pressure Drop 1"	N/A	N/A
Pressure Drop 2"	0.52 iwvg	129.4 pa
Pressure Drop 4"	0.47 iwvg	116.9 pa

## Purafilter



C

Combination chemical and particulate filter that integrates Purafil® patented dry-scrubbing media. Easily replace current particulate filter and upgrade the air quality for your tenants.

Media Loading up to	12 lbs	5.44 kg
Pressure Drop 2"	0.51 iwvg	127 pa
Pressure Drop 4"	0.43 iwvg	107.1 pa
Pressure Drop 12"	0.47 iwvg	117.1 pa

## Purafilter HE



D

Combination chemical and particulate filter that integrates Purafil® enhanced carbon-loaded non-woven media using 100% synthetic fibers. Available in four specially blended combinations to address common air quality issues.

Media Loading up to	15 lbs	6.8 kg
Pressure Drop 2"	0.62 iwvg	154.4 pa
Pressure Drop 4"	0.46 iwvg	114.6 pa
Pressure Drop 12"	0.36 iwvg	89.7 pa

## PuraGRID Filters



E

A revolutionary filter designed to supply large amounts of chemical filtration with minimal pressure drop. Available in Puracarb IAQ and Puracarb AM (Ammonia).

Media Loading up to	21 lbs	9.53 kg
Pressure Drop 2"	0.29 iwvg	72.2 pa
Pressure Drop 4"	0.58 iwvg	144.5 pa

## Purafil V-Bank



F

The Purafil V-Bank uses a high-impact plastic frame with a built-in header for strong, lightweight housing. Ideal for use in odor control where higher levels of contaminants would overwhelm the particulate filter.

Media Loading up to	28 lbs	12.7 kg
Pressure Drop: PCB	0.51 iwvg	127 pa
Pressure Drop: CLR	0.36 iwvg	89.7 pa
Pressure Drop: Blend	0.36 iwvg	89.7 pa

## Purafil Canisters



G

For high concentrations of gaseous contaminants. Available in galvanized steel, stainless steel and high-impact plastic housing. Designed to fit existing holding frames or built into Purafil's custom equipment.

Media Loading up to	90 lbs	40.82 kg
Pressure Drop 9"	1.75 iwvg	435 pa
Pressure Drop 18"	0.42 iwvg	105 pa
Pressure Drop 24"	0.18 iwvg	45 pa

## Purafil Modules



H

Available in high-impact plastic or galvanized steel, the specialty construction is adhesive free with highly aerodynamic airfoil screens to increase contact time while reducing pressure drop. Sampling ports allow you to test media life before replacing.

Media Loading up to	200 lbs	90.72 kg
Pressure Drop CK	0.6 iwvg	149.5 pa
Pressure Drop PK12	0.6 iwvg	149.5 pa
Pressure Drop PK18	0.49 iwvg	102.1 pa

# HOW AIR FILTRATION IMPACTS LEED CERTIFICATION

## HOW PURAFIL HELPS EARN POINTS TOWARDS LEED CERTIFICATION

Environmentally and energy-conscious builders are utilizing LEED (Leadership in Energy and Environmental Design) guidelines to build green structures. This rating system provides a framework for creating efficient, sustainable buildings. LEED certifications are recognized worldwide.

### POINTS TOWARDS LEED CERTIFICATION

RATING CATEGORY	POINTS AVAILABLE	SUGGESTED AIR FILTRATION STRATEGY
Energy & Atmosphere Prerequisite: Minimum Energy Performance	Required	Quantify the energy implications of various filter selections
Energy & Atmosphere Credit: Existing Building Commissioning – Analysis	2	Perform a life cycle cost analysis and energy analysis on the HVAC filtration system
Energy & Atmosphere Credit: Existing Building Commissioning – Implementation	2	Choose air filters with lower resistance to air flow (such as PuraGRID and Purafilter) and follow an optimized change-out schedule
Materials & Resources Credit: Purchasing – Ongoing	1	Use extended-life filters (such as PuraGRID and Purafil V-Bank) to reduce changeouts and minimize waste generated while minimizing energy consumption
Indoor Environmental Quality Credit: Indoor Air Quality Management Program	2	Include all air filters in the I-BEAM-based IAQ management program & follow an optimized changeout schedule
Indoor Environmental Quality Credit: Enhanced Indoor Air Quality Strategies	2	Utilize MERV 13 GreenPleat filters for all systems supplying outdoor air to occupied spaces and follow an optimized changeout schedule

## PURAFIL CUSTOM EQUIPMENT



### FRONT ACCESS SYSTEM (FAS)

Modular frames are individually tracked for Purafil media modules. The FAS is specified in retrofit applications or custom air handling units.

Airflows up to 2,000 CFM per 24" frame



### COMPACT QUIET CABINET (CQC)

A compact recirculation unit with a sound level less than 60dB, making it exceptionally quiet. It has a sleek design that fits in anywhere and casters for easy portability.

Airflows up to 500 CFM



### PURAFIL® SIDE ACCESS SYSTEM (PSA)

The PSA is designed for both particulate and gaseous contaminant control and works in conjunction with the facility's air handling system.

Airflows of 250 - 50,000 CFM.