



Commercial

Product Benefits

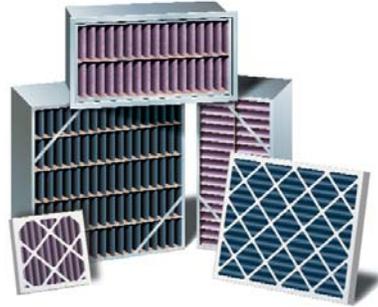
- Contains more than 10 times the media of activated carbon filters.
- Removes more gaseous chemicals and odors than activated carbon.
- Removes gaseous chemicals and solid particulates.
- Adhesive - free filter design
- Minimized by-pass and high removal efficiency.
- Purafil Select Media will not desorb.
- Low pressure drop.
- Long filter life.
- Reduced maintenance.
- Improved IAQ.



PURAFIL®
First...in clean air

2654 Weaver Way Doraville, GA 30340 U.S.A.
(Phone) 770-662-8545 • (Toll-Free) 1-800-222-6367
(Fax) 770-263-6922 • www.purafil.com

Purafilter® - Heavy Duty



Magnified Purafilter cross-section

Product Description

The Purafilter®-Heavy Duty (HD) is a combination chemical and particulate filter designed to replace existing particulate filters in retrofit or rework applications. Purafil engineers are the first to successfully suspend potassium permanganate adsorbents in a bi-component fiber matrix. Chemical filtration systems utilizing potassium permanganate remove a broader range of contaminants than carbon-only filters and exhibit higher efficiencies. Because of the Purafilter-HD's broad-spectrum removal capabilities, it is the only chemical filter capable of meeting the stringent requirements of ASHRAE 62's Indoor Air Quality Procedure.

The bi-component fiber matrix, or filter, does not require the use of adhesives, so adsorbents are fully exposed for reaction with gaseous chemical contaminants and odors. Adsorbents are evenly distributed throughout the filter structure to assure the highest filtration efficiencies. The Purafilter-HD offers a higher media loading than other chemical filters, allowing for a longer service life and reduced maintenance.

Product Applications

Commercial environments, including hotels, airports, office buildings, schools, casinos, restaurants, museums, and athletic stadiums.

System Advantages

Longer Service Life: The Purafilter-HD offers a higher media loading capacity and up to ten times the removal capacity of other chemical filters.

Superior Efficiency: The Purafilter-HD removes a broader range of odors and common indoor pollutants than activated carbon alone.

Easy Life Testing: The Purafilter-HD can be tested to determine remaining service life. Purafil's filter monitoring program assures ongoing compliance with ASHRAE 62's Indoor Air Quality Procedure.

Permanent Odor Removal: The Purafilter-HD will not desorb like traditional activated carbon filters and removes gases through an irreversible chemical reaction process.

Standard Features

- » Purafil Select (potassium permanganate) and Purakol (activated carbon) media
- » Bi-component fiber matrix filter
- » Galvanized or Aluminum frames
- » Factory sealed filter to insure integrity
- » Highest available removal efficiencies
- » Particulate removal efficiency: ≤ MERV 15
- » Airflow: up to 500 ft./min (2.54 m/sec)
- » Temperature Rating: -4° F to 125° F (20° C to 45° C)
- » Filter weight: dependent upon filter
- » All filter sizes available

Optional Features

- » Purafil media types
- » Filter size
- » Media loading
- » Frame type
- » Pleat count
- » Particulate filter efficiencies



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Purafilter® - Heavy Duty Data Sheet

Purafil vs. Competition

Charts

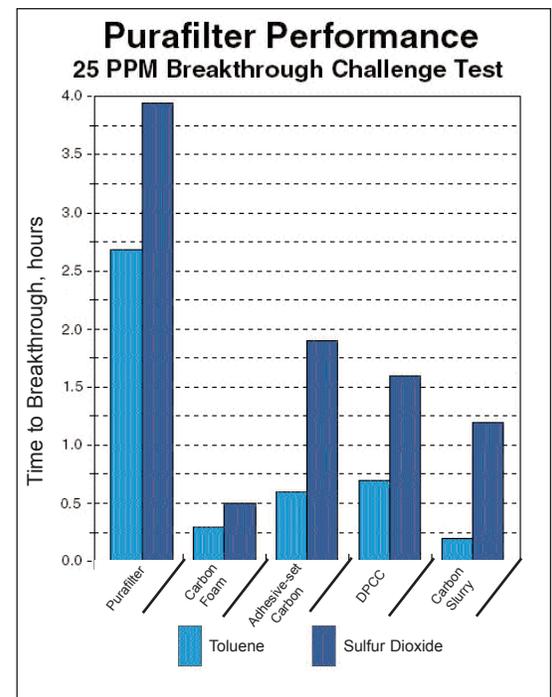
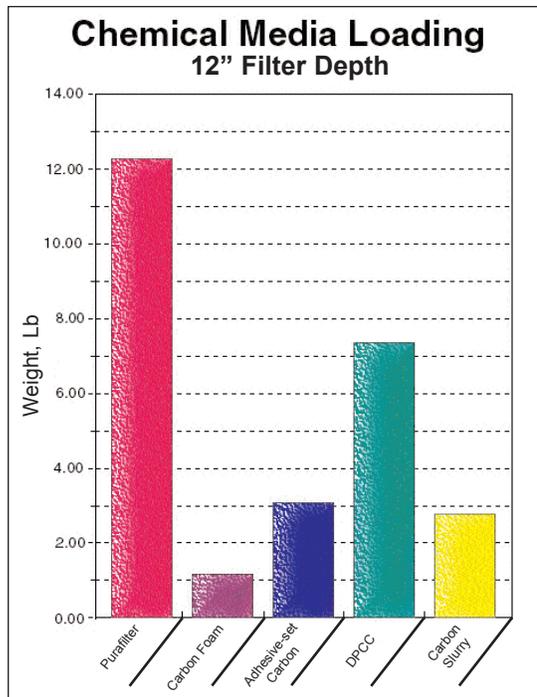
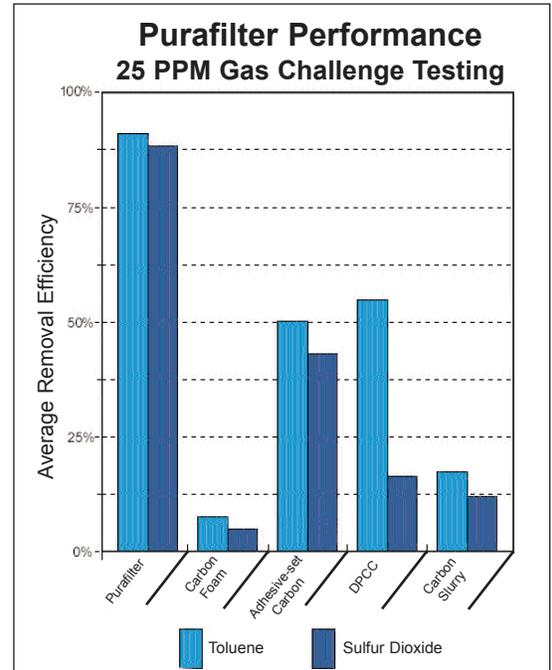
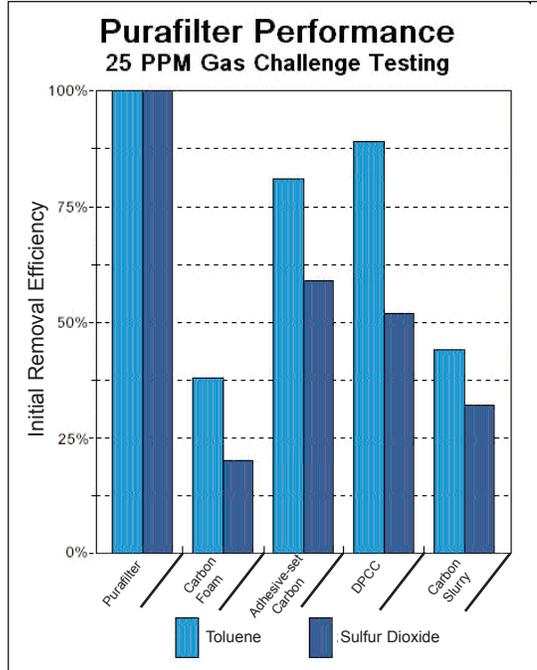
- Initial removal efficiency
- Average removal efficiency
- Media loading
- Breakthrough test

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Purafilter®-Heavy Duty

Suggested Specifications

Pressure Drop Performance

No particulate filter media

Size	$\Delta P/IWG^*$
24x24x12"	0.26
12x24x12"	0.26

With particulate filter media (MERV 15)

Size	$\Delta P/IWG^*$
24x24x12"	0.46
12x24x12"	0.46

* Pressure drop at 492 fpm
(2.5 m/s)

1. General

- 1.1. The Purafilter, Heavy Duty, Commercial Grade air filters, as manufactured by Purafil, Inc. Doraville, GA, shall be high performance, 12" deep pleated, rigid, disposable, gas-phase (chemical) filters supplied with or without an integral particulate filter.

2. Filter Media

- 2.1. Purafilter-HD medium shall be an adsorbent-loaded non-woven medium containing a combination (50:50 by volume) of Purafil Select potassium permanganate granular media and Purakol activated carbon granular media.
- 2.2. This media combination shall not only remove gaseous contaminants by physical adsorption, but also utilizes chemisorption to react with contaminants in the airstream. Thus, it is not to be replaced with a filter whose gas-phase medium is activated carbon.
- 2.3. These adsorbent-loaded non-woven media may be combined with an integral particulate filter media having a Minimum Efficiency Reporting Value (MERV) of up to 15.

3. Frame Enclosure (Filter Construction)

- 3.1. The filter frame shall be constructed galvanized or aluminum.
 - 3.1.1. 12" deep filters shall be equipped with individual die cut or prefabricated contour stabilizers (fingers) or other approved devices to ensure uniform separate and parallel pleats and to stabilize each pleat.
- 3.2. All materials of construction - especially adhesives - shall be of low- or non-emitting materials so as not to adversely affect the media.

4. Labeling

- 4.1. All Commercial Grade, Heavy Duty Purafilters will be listed by their nominal dimensions.
- 4.2. Airflow directional arrows must point in the proper direction to assure the correct orientation of the combination media.

5. Packaging requirements

- 5.1. Purafilters shall be placed individually in a non-porous bag (HDPE, LLDPE, etc.) and each bag shall be taped or otherwise sealed to inhibit exposure to atmospheric contaminants during transit and storage.
- 5.2. There shall be no more than 2 filters packaged in a shipping box for the 12" deep filters, respectively, (min 250 lb test).

6. Performance

- 6.1. The Purafilter-HD air filter shall have the capacity, via oxidation, adsorption, absorption, and chemical reaction to remove contaminants from the airstream, including but not limited to: formaldehyde, nitrogen dioxide, ozone, sulfur dioxide, and toluene.
- 6.2. Resistance at 492 fpm (2.5 m/s) shall be the following values (see left).



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