Flanders®
FOREMOST IN AIR FILTRATION

Pre Pleat AC

Carbon Pleated Filter

PB1201-1104

General

Pre Pleat with activated carbon works almost like an odor "sponge." This versatile filter is an excellent choice in commercial/industrial settings for remediation of minor odor problems.

This filter combines the low resistance, high dust holding capacity of a pleated filter with the odor removing abilities of activated carbon. The base filtration medium is polyester synthetic fiber. It has a generous 100% add-on of activated carbon by weight. (Weight of activated carbon equals the weight of the media to which it is adhered.) As odor producing gases come in contact with the activated carbon in the filter, they are adsorbed...trapped and held in millions of microscopic carbon pores.

Construction

The filter medium is comprised of a polyester synthetic fiber felt with an add-on of powdered, activated carbon. This medium is adhered with hot-melt adhesive to an expanded metal backing, then folded into an accordian pleat arrangement. This media pack is encased and sealed within a moisture resistant kraft board frame.

Activity Level

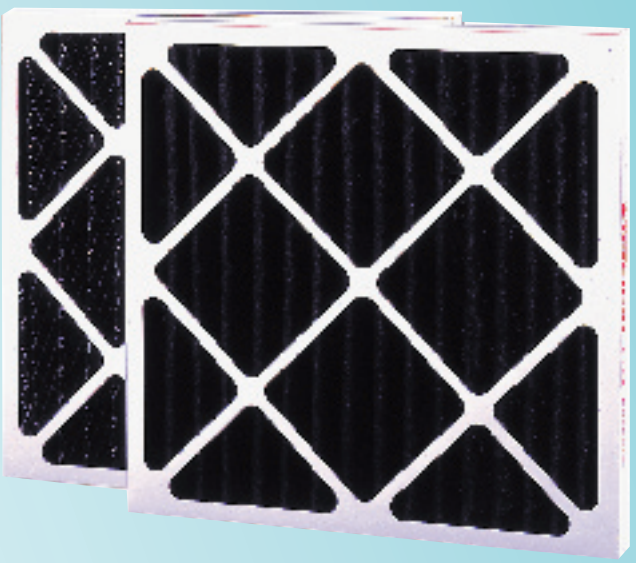
Ability of activated carbon to catch and hold a gas or vapor is referred to as its level of "activity." The higher the activity level, the higher its adsorption level. The activated carbon used in the in this filter is a coconut shell material with an activity level of 60% or more when subjected to the most common test, using carbon tetrachloride.

However, the effectiveness of activated carbon will actually vary considerably depending upon the odor or vapor to be removed. Typically, the adsorptive capacity of activated carbon is higher for those adsorbates with higher molecular weights and boiling points. A chart on the back side of this sheet lists activated carbon's typical effectiveness on various substances with a ranking from 1 (low effectiveness) to 4 (high, typically adsorbs to level of 20% or more of the carbon's weight).

The effective life of activated carbon depends upon the type and quantity of substances to be adsorbed and their dwell time in contact with the activated carbon.

Key Features

- With activated carbon
- Fast, easy remediation for minor odor problems
- Low resistance
- High dust holding capacity



Effective Levels of Activated Carbon Adsorption

Substance	Molecular Weight	Approx Activity
Methane Series		
Methane	167.04	1
Ethane	30.07	1
Propane	44.09	2
Butane	58.12	2
Pentane	72.15	3
Hexane	86.17	3
Heptane	86.17	3
Heptane	100.20	4
Octane	114.23	4
Nonane	128.25	4
Decane	142.28	4
Acetylene Series		
Acetylene	26.04	1
Propyne	40.06	2
Butyne	54.09	2
Pentyne	68.11	3
Hexyne	82.14	3
Ethylene Series		
Ethylene	28.05	1
Propylene	42.08	2
Butylene	56.10	2
Pentylene	70.13	3
Hexylene	84.16	3
Heptylene	98.18	4
Octalene	112.21	4
Benzene Series		
Benzene	78.11	4
Toluene	92.13	4
Xylene	106.16	4
Other substances		
Isoprene	68.11	3
Turpentine	136.23	4
Naphthalene	128.16	4
Phenol	94.11	4
Methyl Alcohol	32.04	3
Ethyl Alcohol	46.07	4
Propyl Alcohol	60.09	4
Butyl Alcohol	74.12	4
Amyl Alcohol	88.15	4
Cresol	108.13	4
Menthol	156.26	4
Formaldehyde	30.03	1
Acetaldehyde	44.05	2
Propionaldehyde	58.09	3
Acryladehyde	56.06	3
Butyraldehyde	72.10	4
Valericaldehyde	86.13	4
Crotonaldehyde	70.09	4
Forrmic Acid	46.03	2
Lactic Acid	90.08	3
Acetic Acid	60.05	4
Proplonic Acid	74.08	4
Butyric Acid	88.10	4
Valeric Acid	102.13	4
Acryllic Acid	76.06	4
Capryllic Acid	144.21	4
Pamitic Acid	256.42	4
Methyl Acetate	74.08	3
Ethyl Acetate	88.10	3
Propyl Acetate	102.13	4
Butyl Acetate	116.16	4
Amyl Acetate	130.18	4
Acetone	58.08	3
M.E.K.	72.10	4
Diethyl Ketone	86.13	4
Dipropyl Ketone	114.18	4
Methyl Ether	46.07	3
Ethyl Ether	74.12	3
Propyl Ether	102.17	3
Butyl Ether	130.23	4
Amyl Ether	158.28	4
Methyl Acrylate	86.09	4
Ethyl Acrylate	100.11	4
Methyl Mercaptan	48.10	4
Ethyl Mercaptan	63.13	4
Propyl Mercaptan	76.15	4
Eucalyptol	154.25	4
Camphor	155.23	4
Methyl Chloride	50.49	3
Ethyl Chloride	64.52	4
Propyl Chloride	78.54	4
Butyl Chloride	92.57	4
Methylene Chloride	84.94	4
Chloroform	119.39	4
Carbon Tet.	153.84	4
Iodoform	393.78	4
Phosgene	98.92	4
Pyridine	79.10	4
Indole	117.14	4
Skatole	131.17	4
Nicotine	162.23	4
Nitrobenzene	123.11	4
Urea	60.06	3
Uric Acid	168.11	4
Putrescine	88.15	4
Chlorine	70.91	3
Bromine	159.83	4
Iodine	253.84	4
Hydrogen Fluoride	20.01	1
Hydrogen Chloride	36.47	2
Hydrogen Bromide	80.92	2
Hydrogen Iodide	127.93	2
Nitrogen Dioxide	46.01	2
Nitric Acid	63.02	2
Sulfur Dioxide	64.08	2
Sulfur Trioxide	80.06	3
Sulfuric Acid	98.08	4
Adhesives		4
Ammonia		2
Asphalt fumes		4
Auto Exhaust		3
Bathroom smells		4
Bleaching Solutions		3
Cleaning Compounds		4
Cooking Odors		4
Hospital Odors		4
Household Smells		4
Jet Fuel Fumes		4
Kitchen Odors		4
Mildew		3
Mold		3
Ozone		4
Paint & Redecorating Odors		4
Smog		4
Stale Odors		4

4: High adsorptive capacity with the substance listed.
Activity of activated carbon typically will run 20% or more of the activated carbon's weight.
3: Satisfactory adsorptive capacity with substance listed.
Activity of activated carbon typically will run 10% or more of the activated carbon's weight.
2: Borderline adsorptive capacity with substance listed.
Activity of activated carbon typically will run 5% or more of the activated carbon's weight.
1: Low adsorptive capacity with substance listed.
Activity of activated carbon will typically run less than 5% of the activated carbon's weight.