

# PREpleat® AC

## CARBON PLEATED FILTERS



- Contains activated carbon
- Fast, easy remediation for minor odor problems
- Low resistance
- High Dust Holding Capacity (DHC)

PREpleat AC filters with activated carbon operates 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 and high DHC of a pleated filter with the odor removing abilities of activated carbon. The base filtration medium is polyester synthetic fiber, with a generous 100% add-on of activated carbon by weight (the 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 accordion pleat arrangement. This media pack is encased and sealed within a moisture resistant kraft board frame.

### Activity Level

The 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 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 generally varies 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 this activated carbon's typical effectiveness on various substances, with a ranking from 1 (low effectiveness) to 4 (high, typically adsorbs to a level of 20% or more of the carbon's weight).

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## Product Information – Effective Levels of Activated Carbon Adsorption

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

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