

TRI-SORB™ Gas Phase Filters ...
... for a secure environment



**INNOVATIVE FILTRATION
SOLUTIONS**



Gas Phase Filtration has taken on a more significant role in HVAC filtration. This has escalated due to the increase in IAQ issues and with the concerns of bioterrorism. Gas Phase Filtration is certainly not the sole solution to these and other related complex issues, but it can be a significant component in a prevention program. Tri-Dim Filter Corporation offers a full range of products, solutions and expertise.

TRI-SORB™ MEDIA, TRAYS, MODULES AND HOUSINGS

Tri-Dim offers a complete line of bulk carbon medias. TRI-SORB Bulk Carbon ranges from our standard carbon to impregnated carbons and blends.

Tri-Dim also has a full line of refillable carbon trays in both standard and custom sizes. In addition Tri-Dim offers disposable modules and refillable modules to fit most OEM systems.

TRI-MET™ Carbon is a full line of carbon housings for retrofit and new construction projects. TRI-MET housings are offered with a wide range of options to meet the requirements of any application.



TRI-SORB™ CARBON FILLED BULK MEDIA ROLLS

TRI-SORB Carbon Filled Bulk Media Rolls are available in four carbon loadings (15, 25, 45 and 90 grams per square foot) and with a 50/50 blend at a loading of 55 grams per square foot. TRI-SORB Media offers an excellent solution to the problem of reoccurring 'sudden' odors - and can be blanketed over HVAC system intakes or exhausts to remove odors.



TRI-SORB™ CARBON PAD AND DIE CUT FRAME FILTERS

TRI-SORB filters are available in either pads or triple stage filtration configurations and are designed to remove gas phase contaminants. Carbon loadings are available from 55, 100, 200, 300 and 600 grams per square foot.

The TRI-SORB line of filters is a unique blend of gas phase and particulate filtration that utilizes the CarbonWeb® media in 100% Granular Activated Carbon and a 50/50 blend of Granular Activated Carbon and impregnated alumina.



CONTAINS
CARBONWEB®
FLEXIBLE CARBON FILLED FIBERS
Patent Number 6,878,193

TRI-SORB™ XL PLEATED FILTERS

TRI-SORB XL Pleated filters are offered in three levels of effectiveness and in three filter depths – 1", 2" and 4". TRI-SORB XL filters utilize carbon size rather than weight to increase the removal efficiency. TRI-SORB XL filters include particulate filtration.

TRI-SORB™ XL DIESEL PLEATED FILTERS

TRI-SORB XL DIESEL filters utilize the same technology as the TRI-SORB XL Pleated filters but are specifically targeted for diesel and formaldehyde odors.

TRI-SORB™ 50/50 PLEATED FILTERS

TRI-SORB 50/50 Pleated filters utilize the CarbonWeb® 50/50 blend media comprised of granular activated carbon and impregnated alumina. TRI-SORB 50/50 filters also provide particulate filtration for easy retrofit.



TRI-DEK® C PANEL AND LINK FILTER

TRI-DEK C filters are available in both individual ring panels as well as in linked panel configuration to provide a custom fit for side access applications. TRI-DEK C filters are available in 45, 300, 345 or 600 grams per square foot carbon loadings.

TRI-DEK C filters utilize the unique CarbonWeb® media inserted between two layers of polyester media that provides MERV 8/9 particulate efficiencies.

TRI-SORB™ CUBE FILTER

TRI-SORB CUBE filters are a unique solution designed to remove both gas phase and particulate contaminants. The cube has a MERV 7 removal efficiency per ASHRAE 52.2 and contains 60% activate granular activated carbon. TRI-SORB CUBE is available in three standard depths - 10", 15" and 20". The TRI-SORB CUBE offers over 400 grams of carbon in a 24x24x10, over 500 grams in a 24x24x15 and 630 grams of carbon in a 24x24x20 cube filter.

TRI-SORB™ R EXTENDED SURFACE RIGID FILTER

The TRI-SORB R offers both gas phase and particulate filtration and offers header and box style frame configurations. The TRI SORB R also utilizes the CarbonWeb® media and is available in either granular activated carbon or 50/50 blend.

TRI-SORB™ XL HEAVY DUTY FILTER

TRI-SORB XL is available in either single or double header frame styles. TRI-SORB XL filters utilize the carbon's surface area rather than weight to increase the removal efficiency.

TRI-SORB™ V CELL GAS PHASE FILTER

The TRI-SORB V filter is a V-Cell gas phase filter that has it all – a large quantity of carbon (36 lbs in a 24x24x12), low operating resistance (0.50" W.G. @ 500 FPM) and allow for easy retrofit into current systems with three frame styles to choose from.



Tri-Sorb R (top), Tri-Sorb V (lower left) and Tri-Sorb XL (lower right)

GAS PHASE CAPACITY GUIDE

SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX	SUBSTANCE	INDEX
Acetaldehyde	2	Cellosolve	4	Ethyl Amine	3	Isophorone	4	Nitromethane	4	Sewer Odors	4
Acetic Acid	4	Cellosolve Acetate	4	Ethyl Benzene	4	Isoprene	4	Nitropropane	4	Skatole	4
Acetic Anhydride	4	Chemical Materials	4	Ethyl Bromide	3	Isopropyl Acetate	4	Nitrotoluene	4	Stagnant Odors	4
Acetone	3	Chemical	4	Ethyl Chloride	3	Isopropyl Alcohol	4	Nonane	4	Smog	4
Acetylene	1	Chemicals	3	Ethyl Ether	3	Isopropyl Ether	4	Noxious Gases	3	Smoke	4
Acids	1	Chlorine	3	Ethyl Formate	3	Kerosene	4	Oxylene	4	Soaps	4
Acrolein	1	Chlorobenzene	4	Ethyl Mercaptan	4	Kitchen Odors	4	Oxane	4	Solvents	4
Acryaldehyde	3	Chlorobutadiene	4	Ethyl Silicate	4	Lactic Acid	4	Odors	4	Sour Milk	4
Acrylic Acid	4	Chloroform	4	Ethylene	1	Lingering Odors	4	Odorants	4	Sour Milk	4
Acrylonitrile	4	Chloro Nitropropane	4	Ethylene Chlorhydrin	4	Liquid Fuels	4	Onions	4	Spilled Beverages	4
Adhesives	4	Chloropirin	4	Ethylene Dichloride	4	Liquid Oils	4	Organic Chemicals	4	Spilled Food Stuffs	4
Aged Manuscripts	4	Cigarette Smoke	4	Ethylene Oxide	3	Lubricating Oils	4	Ozone	4	Stale Odors	4
Air Wick	4	Citrus and other fruits	4	Essential Oils	4	Lubricating Greases	4	Packing House Odors	4	Stoddard Solvent	4
Alcohol	4	Cleaning Compounds	4	Eucalyptole	4	Masking Agents	4	Paint Odors	4	Stiffness	4
Alcoholic Beverages	4	Coal Smoke	3	Exhaust Fumes	4	Medicinal Odors	4	Palmitic Acid	4	Styrene Monomer	4
Amines	2	Combustion Odors	3	Fabric Finishes	3	Melons	4	Paper Deteriorations	4	Sulfur Compounds	3
* Ammonia	4	Cooking Odors	4	Fecal Odors	4	Menthol	4	Paradichlorobenzene	4	Sulfur Dioxide	2
Amyl Acetate	4	Corrosive Gases	3	Female Odors	4	Mercaptans	4	Paste and Glue	4	Sulfur Trioxide	3
Amyl Alcohol	4	Cresote	4	Fertilizer	4	Mesityl Oxide	4	Pentane	3	Sulfuric Acid	4
Animal Odors	4	Cresol	4	Film Processing Odors	4	Methane	4	Pentane	3	Tar	4
Anesthetics	3	Crotonaldehyde	4	Fish Odors	4	Methyl Acetate	4	Pentylene	3	Tarnishing Gases	4
Aniline	4	Cyclohexane	4	Floral Scents	4	Methyl Acrylate	4	Perchloroethylene	4	Tetrachloroethane	3
Antiseptics	4	Cyclohexanol	4	Fluorochloromethane	3	Methyl Bromide	4	Perchloroethylene	4	Tetrahydrofuran	4
Asphalt Fumes	4	Cyclohexanone	4	Food Aromas	4	Methyl Butyl Ketone	4	Perfumes, Cosmetics	4	Theatrical Makeup Odors	4
Automobile Exhaust	3	Dead Animals	4	* Formaldehyde	2	Methyl Chloride	4	Perspiration	4	Tobacco Smoke	4
Bacteria	3	Decane	4	Formic Acid	3	Methyl Chloroform	4	Persistent Odors	4	Toilet Odors	4
Bathroom Smells	4	Decaying Substances	4	Freon	3	Methyl Chloride	4	Pet Odors	4	Toluene	4
Benzene	3	Decomposition Odors	4	Fuel Gases	2	Methyl Cellosolve Acetate	4	Phenol	4	Toluene	4
Bleaching Solutions	4	Deodorants	4	Fumes	3	Methyl Chloride	4	Phosgene	4	Trichloroethylene	4
Body Odors	4	Detergents	4	Gangrene	4	Methyl Chloroform	4	Pitch	4	Turpentine	4
Bromine	4	Dibromomethane	4	Garlic	4	Methyl Ether	4	Plastics	4	Urea	4
Burned Flesh	4	Dichlorobenzene	4	Gasoline	4	Methyl Ethyl Ketone	4	Poison Gases	3	Uric Acid	4
Burned Food	4	Dichlorodifluoromethane	4	Heptane	4	Methyl Formalde	4	Popcorn and Candy	4	Valeric Acid	4
Burning Fat	4	Dichloroethane	3	Heptylene	4	Methyl Isobutyl Ketone	4	Poultry Odors	4	Valeric Aldehyde	4
Butadiene	2	Dichloroethylene	4	Hexane	3	Methyl Mercaptan	4	Propane	2	Vapors	4
Butane	2	Dichloroethyl Ether	4	Hexylene	3	Methylal	3	Propionaldehyde	3	Varnish Fumes	4
Butanone	4	Dichloromethyl Ether	4	Hexyne	3	Methyldichloroethane	4	Propionic Acid	4	Vinager	4
Butyl Acetate	4	Dichloromethyl Ether	4	Hospital Odors	4	Methyldichloroethanol	4	Propyl Acetate	4	Vinyl Chloride	4
Butyl Alcohol	4	Dichloronitroethane	4	Household Smells	4	Methyldichloroethane	4	Propyl Alcohol	4	Viruses	3
Butyl Chloride	4	Dichloropropane	4	Hydrogen	1	Methylene Chloride	4	Propyl Chloride	4	Volatile Materials	3
Butyl Ether	4	Dichlorotetrafluoroethane	4	Hydrogen Bromide	2	Mildew	4	Propyl Ether	4	Waste Products	4
Butylene	2	Diethyl Ketone	4	Hydrogen Chloride	3	Mixed Odors	4	Propyl Mercaptan	4	Waterproofing Compounds	4
Butyne	2	Dimethylamine	4	Hydrogen Cyanide	3	Mold	3	Propylene	2	Wood Alcohol	3
Butyraldehyde	4	Dioxane	4	Inorganic Chemicals	3	Monochlorobenzene	4	Propyne	2	Xylene	4
Camphor	4	Disinfectants	4	Incomplete Combustion	3	Methoxychloromethane	3	Purifying Substances	3		
Cancer Odor	4	Embalming Odors	4	Iodine	4	Methyl Chloride	4	Putrescine	4		
Caprylic Acid	4	Ethane	3	Iodine	4	Methyl Chloride	4	Pyridine	4		
Carbolic Acid	3	Ethyl Acetate	4	Iodine	4	Methyl Chloride	4	Radiation Products	2		
Carbon Bisulfide	1	Ethyl Alcohol	4	Irritants	4	Methyl Chloride	4	Rancid Oils	4		
Carbon Dioxide	1	Ethyl Acetate	4			Methyl Chloride	4	Refrigerating Odors	4		
Carbon Monoxide	1	Ethyl Acrylate	4			Methyl Chloride	4	Resins	4		
Carbon Tetrachloride	4	Ethyl Alcohol	4			Methyl Chloride	4	Ripening Fruits	4		

The capacity index has the following meaning:

- 4 - High Capacity for all materials in this category. One pound takes up about 20 to 50% of its own weight - average about 1/3 (33-1/3%). This category includes most of the odor causing substances.
- 3 - Satisfactory capacity for all items in this category. These constitute good applications but the capacity is not as high as Category 4. Adsorbs about 10 to 25% of its weight - average about 1/8 (16.7%).
- 2 - Includes substances which are not highly adsorbed but which might be taken up sufficiently to give good service under particular conditions of operation. These require individual checking.
- 1 - Adsorption capacity is low for these materials. Activated Carbon cannot be satisfactorily used to remove them under ordinary circumstances.

* For the asterisked compounds, impregnated carbon or activated alumina with KMnO_4 will greatly increase the adsorption ability.

Tri-Dim Filter Corporation is committed to continual product development - all descriptions, specifications and performance data are subject to change without notice.

Tri-Dim products are manufactured to exacting criteria - there can be a $\pm 5\%$ variance in filter performance.

Tri-Dim® and Tri-Dek® are Registered Trademarks of Tri-Dim Filter Corporation. Tri-Sorb™ is a Trademark of Tri-Dim Filter Corporation.



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