



**Koch Filter Corporation**  
Filtration Products Crafted with Pride

# *DuraPURE™*

*Extended Surface Activated Carbon Filter*



- Provides effective removal of odors and Volatile Organic Compounds (VOC).
- Constructed with premium grade coconut shell carbon
- Two carbon capacity options
- Available with specially impregnated adsorption medias

**Koch Filter Corporation...Durable. Reliable. Versatile.**

Bulletin No. K-397-B

## DuraPURE Extended Surface Activated Carbon Filter



As worldwide Indoor Air Quality specifications become more demanding, gas phase adsorption is quickly becoming a major factor in commercial and industrial air filtration systems. The DuraPURE is an excellent high performance solution in applications such as airports, industrial facilities, chemical plants, office buildings, and a wide variety of other air filtration systems.

The Koch Filter Corporation DuraPURE is an extended surface carbon filter which utilizes premium grade granular 60% activated carbon. DuraPURE's unique V-shaped frame holds up to 26 pounds of activated carbon in a single 24x24x12 filter, which insures maximum VOC and odor removal in any commercial or industrial application.

### Two Capacity Levels and Three Standard Sizes

To meet the tough requirements of today's complex air filtration systems, DuraPURE is available in three standard sizes, and two media capacity levels, Standard Capacity and High Capacity.

### Specialized Carbon Media

DuraPURE is also available with specialized impregnated carbon media for removal of ammonia, hydrogen sulfide, and other difficult-to-remove compounds. Consult your Koch Filter Corporation representative to find the appropriate DuraPURE model for your system.

## DuraPURE Applications

With two capacity levels, three standard sizes and specially-impregnated carbons available, the DuraPURE can be used effectively in a wide variety of applications.



### Airports

*DuraPURE removes toxic compounds, such as aviation fuel emissions, and other airborne gases common to airport environments.*



### Hospitals

*DuraPURE provides effective control of undesirable odors and compounds such as fumes from parking garages.*



### Industrial Manufacturing Plants

*DuraPURE is useful in protecting people and processes from a wide range of gaseous emissions in source-capture or ventilation applications.*

### Commercial Office Buildings

*DuraPURE is an excellent choice for removal of food odors, and other harmful gases commonly found in urban settings.*



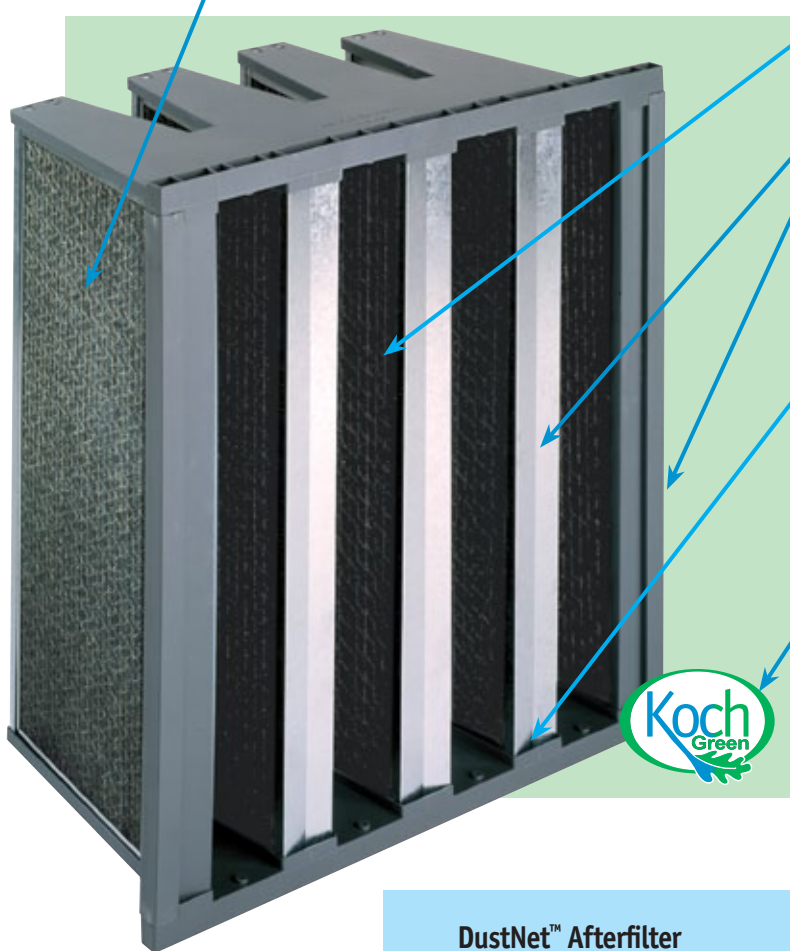
# DuraPURE Construction and Technical Data

## Activated Coconut Shell Carbon

Premium grade 60% activated carbon provides maximum adsorption of VOC's and odors (other specially impregnated medias are also available).

## Individual Media Cells

Moisture resistant honeycomb carbon cells offer high efficiency contaminant removal, with relatively low resistance to airflow.



## Plastic and Metal Frame Components

Rugged components make the DuraPURE extremely rigid and easy to install. Single or double header available.

## Thermoplastic Hot-Melt Adhesive

Specialized sealant eliminates air bypass and secures the individual carbon cells within the frame.

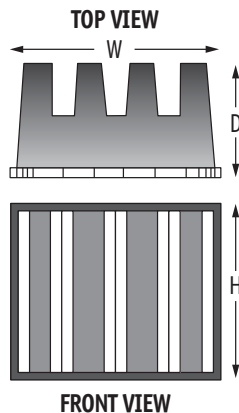
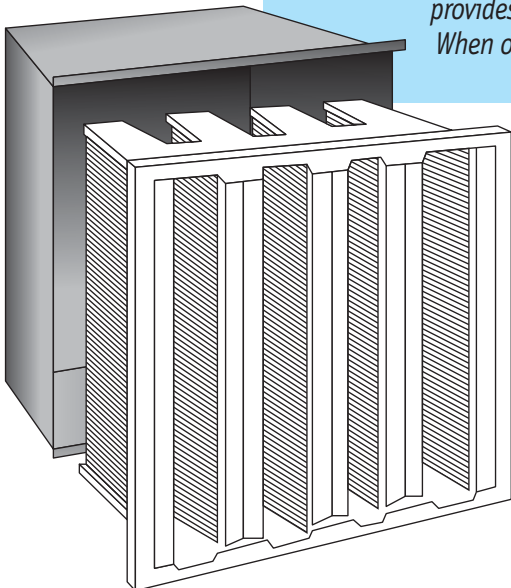
## Qualifies as a Koch Green Product

The Koch Green icon identifies the DuraPURE as a product that meets or exceeds our criteria in one or more of the following categories: Earns LEED Points, Reduces Energy Costs, Extends Filter Lifecycles, Conserves Resources and/or Improves Indoor Environmental Quality.



## DustNet™ Afterfilter

DuraPURE filters may also be furnished with an optional DustNet™, a cube-style afterfilter constructed with 100% polyester synthetic filter media. The DustNet™ provides enhanced efficiency and prevents carbon dusting downstream. When ordered, DustNet™ is shipped pre-installed on the DuraPURE filters.



## DuraPURE Dimensions\*

|   | NOMINAL | ACTUAL                           |
|---|---------|----------------------------------|
| H | 24"     | 23 <sup>3</sup> / <sub>8</sub> " |
|   | 20      | 19 <sup>3</sup> / <sub>8</sub>   |
|   | 12      | 11 <sup>1</sup> / <sub>2</sub>   |
| W | 24      | 23 <sup>3</sup> / <sub>8</sub>   |
| D | 12      | 11 <sup>1</sup> / <sub>2</sub>   |

## Metric Conversion Table

|                   |                     |
|-------------------|---------------------|
| 1.0 inches        | 2.54 cm             |
| 1 ft <sup>2</sup> | .093 m <sup>2</sup> |
| 1 FPM             | .005/m second       |
| 1 CFM             | 1.7 m/hour          |
| 1.0 in. w.g.      | 249 Pa              |

\* Dimensions do not include the DustNet™



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## DuraPURE Product Information

| DuraPURE Model No.                | Nominal Size (HxWxD) | Actual Size (HxWxD)  | Initial Pressure Drop (inch w.g.) | Carbon Weight Per Filter (lbs.) | Total Weight Per Filter (lbs.) |
|-----------------------------------|----------------------|--|-----------------------------------|---------------------------------|--------------------------------|
| <b>DuraPURE Standard Capacity</b> |                      |  |                                   |                                 |                                |
| DPC-442-SC                        | 24 x 24 x 12         | 23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .34                               | 18                              | 33                             |
| DPC-042-SC                        | 20 x 24 x 12         | 19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .34                               | 15                              | 30                             |
| DPC-242-SC                        | 12 x 24 x 12         | 11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .34                               | 8                               | 26                             |
| <b>DuraPURE High Capacity</b>     |                      |  |                                   |                                 |                                |
| DPC-422-SC                        | 24 x 24 x 12         | 23 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .74                               | 26                              | 41                             |
| DPC-042-SC                        | 20 x 24 x 12         | 19 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .74                               | 24                              | 36                             |
| DPC-242-SC                        | 12 x 24 x 12         | 11 <sup>3</sup> / <sub>8</sub> x 23 <sup>3</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>2</sub> | .74                               | 12                              | 32                             |

### Additional DuraPURE Information

Solvent Capacity of Standard Capacity DuraPURE: 5 lbs.

Solvent Capacity of High Capacity DuraPURE: 8 lbs.

Carbon Activity Rating: Minimum 60% on carbon tetrachloride (CCl<sub>4</sub>) at 25° C.

## Partial List of Contaminants Best Controlled by Activated Carbon

|                      |                     |                             |                         |                               |
|----------------------|---------------------|-----------------------------|-------------------------|-------------------------------|
| Acetic acid          | Ethyl benzoate      | Chloroethane                | Tetrachloroethane       | Methyl propyl ketone          |
| Allyl acetate        | Ethyl sulfide       | Cineole                     | Toluene                 | Cyclohexanone                 |
| Benzyl acetate       | Ethylene dichloride | Heptane                     | Trichloroethylene       | Decane                        |
| Butyl acetate        | Formic acid         | Indene                      | Triethylhexane          | Dichloroethane                |
| Butyl ethyl ether    | Octane              | Isoamyl butrate             | Mineral Spirits         | Dimethyl disulfide            |
| Butyric acid         | Pentachloroethane   | Limonene                    | Nitroethane             | Ethanol                       |
| Carbon tetrachloride | Phenol              | LimoneneMethylallyl alcohol | Vinyl Pyridine          | Ethynl lactate                |
| Chloroform           | Styrene             | Methylallyl Butanol         | Acrylic acid            | Ethynl oxalate                |
| Chlorophenol         | Thiophenol          | Methyl ethyl ketone (MEK)   | Benzonitrile            | Ethylcyclohexane              |
| Furan                | Trichloroethane     | Cyclohexanol                | Bromoform               | Ethylene glycol diethyl ether |
| Hexane               | Trimethylpentane    | Cymene                      | Butylbenzene            | Nonane                        |
| Isoamyl alcohol      | Methylsilylate      | Dibutylamine                | Butyl sulfide           | Octene                        |
| Isopropyl alcohol    | Nitroanisole        | Diethyl ketone              | Carbon disulfide        | Pentyl ether                  |
| Linalyl format       | Valeric acid        | Dodecane                    | 2-Chloroethanol         | Pyridine                      |
| Methyl benzoate      | Xylene              | Ethyl acetate               | Chlorotoluene           | Tetrachloroethylene           |
| Methyl oxyethanol    | Acetone             | Ethyl methyl ketone         | Cresol                  | Tributylamine                 |
| Cyclohexane          | Benzaldehyde        | Ethylbenzene                | Heptene                 | Tridecane                     |
| Cyclohexylbenzene    | Bezene              | Ethylene glycol             | Isoamyl acetate         | Methyl pentanone (MIBK)       |
| Decene               | Butyl alcohol       | Nitrogen dioxide<100ppb     | Isobutyl propinate      | Naphtha                       |
| Dichlorotoluene      | Butyl mercaptan     | Octanoic acid               | Lynalyl acetate         | Undecane                      |
| Dimethyl disulfide   | Camphor             | Pentylamine                 | Methyl acetylsalicylate | Vinyl toluene                 |
| Ethoxyethanol        | Chlorobenzene       | Propionic acid              | Methyl cyclohexanol     |                               |



### Corporate Offices

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### Regional Sales Offices/Distribution Centers

Atlanta, GA • Detroit, MI • East Greenville, PA\* • Houston, TX\* • Indianapolis, IN

Kansas City, MO • Louisville, KY\* • Madbury, NH • Nashville, TN • Rancho Cucamonga, CA\*

\*Denotes manufacturing site.

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Koch Filter Corporation maintains a policy of continuous product research and improvement, and retains the right to change product specification and design without notice.



Look for the Koch Green icon! Whenever you see the Koch Green icon, we are identifying a product that meets or exceeds our criteria in one or more of the following categories: Earns LEED Points, Reduces Energy Costs, Extends Filter Lifecycles, Conserves Resources, and Improves Indoor Environmental Quality.

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