

THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# VariSorb® XL

## HIGH-EFFICIENCY GAS-PHASE FILTERS

- Highest activity carbon
- Energy efficient mini-pleat design
- Corrosion-free, non-metal construction
- Easy to retrofit particulate installations
- Fully incinerable

VariSorb XL high-efficiency filters are designed to improve Indoor Air Quality (IAQ) through the effective removal of indoor and outdoor gaseous contaminants typically found in the urban environment.

This includes Volatile Organic Compounds (VOCs), SO<sub>x</sub>, NO<sub>x</sub>, and Ozone.

The VariSorb XL filter is suitable for retrofit into existing HVAC systems, for specification in new construction, or for direct replacement of single header filters.



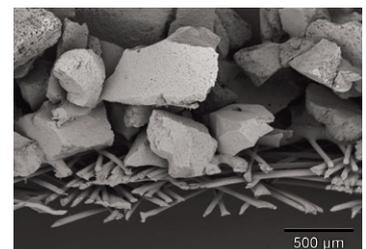
### Construction

VariSorb XL filters consist of filter elements assembled in a V-bank configuration in High Impact Polystyrene (HIPS) cell sides. The header and cell sides provide a sturdy construction that resists damage during shipping, handling, and operation. Constructed of plastic, the VariSorb XL filter is fully incinerable. The pleated filter elements provide a high media area and low resistance.

### Media

The VariSorb XL filter features a pleated media comprised of very high activity carbon particles bonded into a matrix of mini carbon granulate embedded between two non-woven synthetic layers. The very small carbon granules, unlike traditional granular bed chemical filters, provide a granular microstructure that ensures a much higher effective area per pound of media, resulting in a high spontaneity of adsorption. Combined with the dense packing of the microstructure, this creates a tortuous path for the contaminant, resulting in a high yield for the filter. The fiber matrix maximizes the exposure of the sorbent to the gas while securely bonding it within the media. Dusting is nearly eliminated, and pressure drop is minimized.

*Microphotograph of filter media showing fiber-carbon matrix used to maximize available carbon surface area.*



# VariSorb® XL Filters

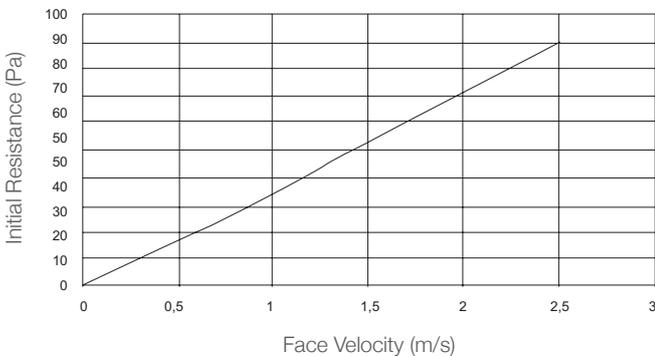
## Technical Data

| Type                  | Dimensions <sup>1)</sup> (mm)<br>(HxWxD) | Airflow (m <sup>3</sup> /h) |         | Initial Resistance at<br>Nominal Airflow (Pa) |
|-----------------------|--|-----------------------------|---------|---|
|                       |  | Nominal                     | Maximum |   |
| Varisorb XL- 24.24.12 | 592 x 592 x 292                          | 1700                        | 3400    | 45  |
| Varisorb XL- 12.24.12 | 287 x 592 x 292                          | 850                         | 1700    | 45  |

1) Width and height are interchangeable; pleats can be used either vertical or horizontal without affecting performance.

## Performance Data

Initial Resistance vs. Face Velocity



## Specifications

**Maximum Operating Temperature:** 55 °C

**Maximum Relative Humidity:** 95%

**Cell Sides:** The molded end panels are made of HIPS. The extruded vertical components are made of Acrylonitrile Butadiene Styrene (ABS).

**Media:** Mini carbon granulate embedded between two non-woven synthetic layers.



SAAF™ cassettes, replacement panels, and housings remove gaseous contaminants from most applications. They are available across a complete range of pressure drop and removal efficiencies. Contact your local AAF Representative for more information.

VariSorb® is a registered trademark of AAF International in Europe and other countries.



AAF International  
European Headquarters  
Robert-Bosch-Straße 30-32, 64625 Bensheim  
Tel: +49 6251 80368 – 0, Fax: +49 6251 80368 – 20  
aafintl.com

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