



## VAPORSORB™ II-AB LITHOGRAPHY TRACK CHEMICAL AIR FILTERS

*Superior protection against the full range  
of total molecular gas phase acids and bases*

### Overview

VaporSorb™ II-AB lithography track chemical air filters provide full range protection against inorganic acids and Total Molecular Base (TMB) contaminants.

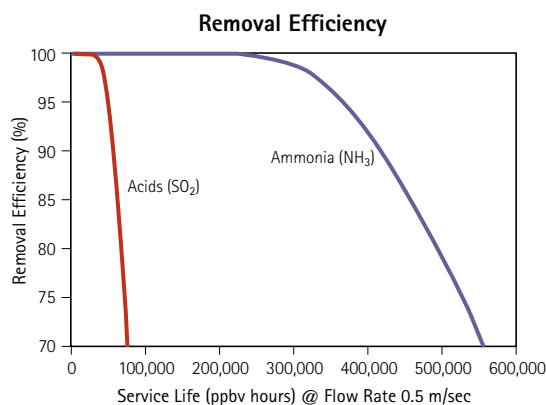
VaporSorb II-AB Track/Coat/Develop chemical air filters are designed to Tokyo Electron® specifications and incorporate a patent-pending polymer media which is completely dopant- and outgas-free.

These high-performance filters are the third generation VaporSorb II-AB filters utilizing design-for-manufacture and common materials of construction to provide an improved cost of ownership, yet offer the same ability to remove airborne amines and inorganic acids to the sub-parts-per-billion range.

### Key Features

- Protects against full range of total molecular acid and base gas phase contaminants
- Guaranteed performance (when properly installed in accordance with OEM specifications)
- Guaranteed configuration fit of filter sizes for all lithography coat-and-develop tracks
- Long service life eliminates tool interruptions and lowers cost of ownership

### Performance Data



#### CAPTURED CONTAMINANTS\*

Acids	Amines
Hydrochloric	Ethylamine
Hydrofluoric	Diethylamine
Sulfur dioxide	Ammonia
Nitric	NMP

\*Examples of common contaminants captured.

## Specifications

### MATERIALS

Casing	0.060" clear anodized aluminum
Media	CSP36
Cover screens	0.060" clear anodized aluminum
Gasket, if used	0.25" x 0.5" closed cell polyethylene, downstream side only
Handle, if used	3/8" black nylon, end of filter, on center

### CHEMICAL AND MECHANICAL PERFORMANCE

Parameter	At	Target
Air velocity distribution	9 pts 0.1 m downstream of filter @ 0.5 m/sec	Uniform distribution: Variation ~ 0
Pressure drop	0.5 m/sec	<50 Pa
Initial efficiency, acids	100 ppbv SO <sub>2</sub> @ 0.5 m/sec	>99% removal efficiency (RE)
Service life, acids	1 ppbv SO <sub>2</sub> @ 0.5 m/sec	>90% RE for >2.5 years
Initial efficiency, bases	1000 ppbv NH <sub>3</sub> @ 0.5 m/sec	>99% RE
Service life, bases	10 ppbv NH <sub>3</sub> @ 0.5 m/sec	>90% RE for >2.5 years
Temp/humidity variation	30–70% RH 18–35°C	<10% service life degradation
Dust generation	0.1 µm particle per ft <sup>2</sup>	<10 detected 1 meter downstream
Metal contaminant	None detected	<0.1 ng/L air

*Note: Service life estimates are based on laboratory and field tests of similar adsorbent configurations.*

## For More Information

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## Ordering Information

Part Number	Height (mm)	Width (mm)	Gasket	Weight (kg)	Handle/Sample Port
ESI004866-01	360	620	No	7	No/No
ESI004866-02	460	360	No	5	No/No
ESI004866-03	400	1120	No	15	No/No
ESI004866-04	460	620	No	9	No/No
ESI004866-05	460	385	No	6	No/No
ESI004866-06	460	460	No	7	No/No
ESI004866-07	615	310	No	6	No/No
ESI004866-08	615	155	No	3	No/No
ESI004866-09	385	620	No	8	No/No
ESI004866-10	605	905	No	18	Yes/No
ESI004866-11	530	530	No	9	No/No
ESI004866-12	460	620	Yes	9	No/No
ESI004866-13	460	385	Yes	6	No/No
ESI004866-14	460	460	Yes	7	No/No
ESI004866-15	615	310	Yes	6	No/No
ESI004866-16	460	360	Yes	5	No/No
ESI004866-17	360	620	Yes	7	No/No
ESI004866-18	615	155	Yes	3	No/No
ESI004866-19	385	620	Yes	8	No/No
ESI004866-20	400	1120	Yes	15	No/No
ESI004866-21	610	305	No	6	No/No
ESI004866-22	610	150	No	3	No/No
ESI004866-23	630	710	No	15	No/No
ESI004866-24	460	385	No	6	No/Yes
ESI004866-27	360	300	Yes	5	No/No
ESI004866-28	520	460	No	8	No/No
ESI006379-01	270	720	No	10	Yes/No
ESI006379-02	360	620	No	11	Yes/No
ESI006380-01	360	200	No	4	Yes/No

*Note: Measurements are made from middle-to-middle of each side segment. All filters' depth measurements are 155 mm.*

