



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

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

### Overview

VaporSorb™ II-ABC lithography track chemical air filters provide superior protection against the full range of total molecular gas phase acids, bases and condensable organics.

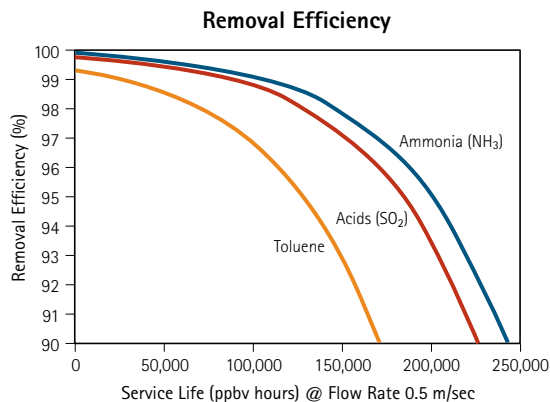
VaporSorb II-ABC Track/Coat/Develop chemical air filters are designed to Tokyo Electron® specifications and incorporate a patent-pending polymer media which is completely dopant- and outgas-free.

These high-performance filters remove airborne amines, inorganic acids and organics to the sub-parts-per-billion range.

### Key Features

- Protects against full range of total molecular gas phase acids, bases and condensable organics
- 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	Condensable Organics**
Hydrochloric	Ethylamine	PGMEA
Hydrofluoric	Diethylamine	Benzene
Sulfur dioxide	Ammonia	Butylated hydroxytoluene (BHT)
Nitric	NMP	Heptadecane

\*Examples of common contaminants captured.

\*\*C6–C30

## Specifications

### MATERIALS

Casing	0.060" clear anodized aluminum
Media	CSP35
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	11 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
Initial efficiency, condensables	26 ppbv @ 0.5 m/sec	>99% RE
Service life, condensables	3 ppbv @ 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

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [www.entegris.com](http://www.entegris.com) and select the Customer Service link for the center nearest you.

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## Ordering Information

Part Number	Height (mm)	Width (mm)	Gasket	Weight (kg)	Strap Handle
ESI004445-01	360	620	No	8	No
ESI004445-02	460	360	No	6	No
ESI004445-03	400	1120	No	15	No
ESI004445-04	460	620	No	10	No
ESI004445-05	460	385	No	6	No
ESI004445-06	460	460	No	8	No
ESI004445-07	615	310	No	7	No
ESI004445-08	615	155	No	4	No
ESI004445-09	385	620	No	9	No
ESI004445-10	605	905	No	18	Yes
ESI004445-11	530	530	No	9	No
ESI004445-12	460	620	Yes	10	No
ESI004445-13	460	385	Yes	6	No
ESI004445-14	460	460	Yes	8	No
ESI004445-15	615	310	Yes	7	No
ESI004445-16	460	360	Yes	6	No
ESI004445-17	360	620	Yes	8	No
ESI004445-18	615	155	Yes	4	No
ESI004445-19	385	620	Yes	9	No
ESI004445-20	400	1120	Yes	15	No
ESI004445-23	630	710	No	18	No
ESI006399-01	270	720	No	10	Yes
ESI006399-02	360	620	No	11	Yes
ESI006400-01	360	200	No	4	Yes

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

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