

# Hilite-A Filter Cartridges



Remove acids and alkalis from synthetic fluids and petroleum oil.

## Activated alumina for superior acid reduction performance

Hilco developed Hilite-A, an activated alumina filter media, for the adsorption of acids, alkalis, and other oxidation products from synthetic fluids and petroleum oil.

Hilite-A cartridges remove acids from phosphate esters, pre-fluorinated polyether (PFPE) and other expensive synthetic fluids far more efficiently than fuller's earth. The activated alumina filter media provides acid control with several times the neutralizing power (by volume) of fuller's earth.

### Features and Benefits

- *Superior efficiency:* Reduces total acid number (TAN) much more effectively than fuller's earth. Hilite-A, by volume, has up to twice the acid neutralizing power of the highest grade of fuller's earth.
- *Filters by adsorption:* Polar contaminants such as colloidal solids, acids, and water are adsorbed.
- *Eliminates fuller's earth disadvantages:* Hilite-A cartridges minimize gels or foam which plug filter media and system components as a result of chemical reaction between the fluid and the fuller's earth.
- *Extended life:* Each pound of Hilite-A activated alumina exposes a surface area the size of 20 football fields to the fluid it is filtering. Even the smallest Hilco cartridge has more than one pound of media. Compare this to cartridges which not only have less than one third the media mass of the Hilco AT310, but also aren't built to Hilco standards.
- *Reduces new-installation cost:* More efficient filtration reduces housing size requirements while maintaining the degree of control your operation demands. A smaller system costs less to install and to operate.
- *More cost-effective:* Hydrolysis of phosphate ester fluids is an autocatalytic process triggered by intermediate acid products in the oil. Activated alumina adsorption of the intermediate products effectively blocks the degradation of expensive fluids.
- *Available in four standard sizes:* 3" x 10", 5" x 11", 7" x 18", and 11" x 19" (nominal O.D. by length).
- *Maximum temperature:* Standard cartridge withstands temperatures up to 250° F (121° C). All sizes.

NOTE: High temperature cartridges for 600° F (315° C) operation are available on special order. Contact Hilliard or your Hilco distributor for details.



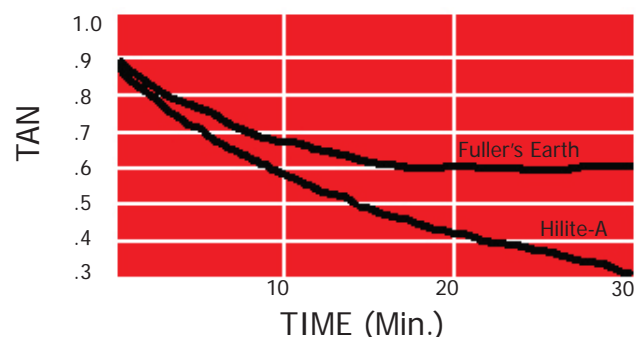
Cartridges are filled with Hilite A, a highly porous aluminum oxide filter media.

### Applications

- Semiconductor vacuum pump fluids
- Turbine phosphate ester lubricants
- Low vapor-pressure vacuum fluids
- Diffusion pumps
- EDM machines
- Hydraulic fluids
- Vacuum pump seal oils
- Transformer oils

### Greater acid neutralization

The following graph depicts the acid reduction performance which is Total Acid Number (TAN) of reservoir vs. recirculation time for Hilite-A and fuller's earth.



## Activated Alumina, AT Cartridge Specifications

Cartridge (Data Sheet)	Dimensions (inches nominal)			Housing Nominal Centerpost	Case Quantity	Shipping Weight Per Case	Gram-Moles Acid Capacity Per Cartridge
	O.D.	Length	I.D.				
AT 310-00-C	3	10	1	3/4	4	6 lbs.	.11
AT511-00-C	5	11	1 3/4	1 1/4	4	20 lbs.	.45
AT718-00-CRN	7	18	2 1/2	1 1/2	4	50 lbs.	.8
AT718-00-CN	7	18	2 1/2	2	4	50 lbs.	.8
AT119-00-03ZXC0	11	19	2 1/2	1 1/2	1	47 lbs.	3.98

## SYSTEM SIZING

Dosage for maintenance TAN level of .2 or lower, .1 lb. per gallon of system volume.

### AT310-00-C

System Gallons	No. Cartridge AT310-C	GPM per AT310-C
10	1	.1
50	5	.1
100	10	.1

### AT511-00-C

System Gallons	No. Cartridge AT511-C	GPM per AT511-C
10	1	.2
50	1	.2
100	3	.2

### AT718-00-CN/CRN

System Gallons	No. Cartridge AT718-CN	GPM per AT718-CN
100	1	.5
500	7	.5
	14	.5
	29	.5

### AT119-00-03ZXC0

System Gallons	No. Cartridge AT119	GPM per AT119
100	1	.5
500	1	.5
	3	.5
	6	.5

Dosage for remedial level (high TAN), .25 lb. per gallon of system volume.

### AT310-00-C

System Gallons	No. Cartridge AT310-C	GPM per AT310-C
10	3	.1
50	13	.1
100	25	.1

### AT511-00-C

System Gallons	No. Cartridge AT511-C	GPM per AT511-C
10	1	.2
50	3	.2
100	6	.2

### AT718-00-CN/CRN

System Gallons	No. Cartridge AT718-CN	GPM per AT718-CN
100	4	.5
500	18	.5
	36	.5
	71	.5

### AT119-00-03ZXC0

System Gallons	No. Cartridge AT119	GPM per AT119
100	1	.5
500	4	.5
	7	.5
	14	.5

### The Hilliard Corporation

100 West Fourth Street  
 Elmira, NY 14902-1504  
 Phone: 607-733-7121  
 Fax: 607-737-1108  
 email: [hilliard@hilliardcorp.com](mailto:hilliard@hilliardcorp.com)  
<http://www.hilliardcorp.com>

Your Local Representative:

