

Fluoride Removal Filter Cartridge

AWC supplies a USA made fluoride cartridge filter made from activated alumina. Activated alumina (AA) is the only filter material specifically designed to remove fluoride and arsenic from water. It is a ceramic compound made of aluminium oxide with a very high surface-"area-to-weight" ratio, giving it a very high capacity for fluoride adsorption. AA filters can reduce fluoride concentrations to below 0.1 ppm, in other words 97% of the normal fluoridated water level.

Features & Benefits

- Up to 97% Fluoride removal
- Activated Alumina can be blended with other absorbents such as carbon, clay minerals, molecular bonding agents and elastomeric polymer.
- Mechanically strong and highly resistant to abrasion, breakage and deterioration during usage thereby insuring a long life service.
- Activated Alumina is relatively inert, non-toxic, non-corrosive and not prone to oxidation
- Good performance, even at low concentration ranges



How does Activated Allumina work?

Activated alumina adsorbs, not absorbs & this is an important difference. For example, a sponge will absorb water, but the water molecules do not actually bond with those of the sponge. Therefore, the water can simply leak out or evaporate after a while. On the other hand, activated alumina adsorbs. When a chemical is drawn into the pores of an activated alumina sphere, it actually bonds with the solid material. Once in, it won't come out without considerable heating.

Specifications

Capacity12 months/2000 litresFlow Rate3 litres per minuteMicron Rating1 micron nominal





Aragon Filter Cartridge

Made in Europe

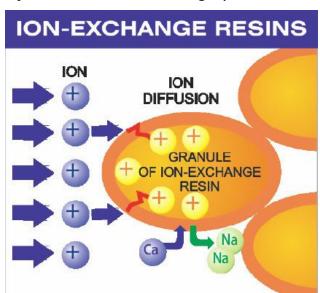
This world leading cartridge is based on the innovative, patented Aragon Media. It has been extensively tested by Certified Laboratories in Europe, to effectively remove chemicals, pesticides, bacteria and heavy metals as well as sediment down to >2 microns.

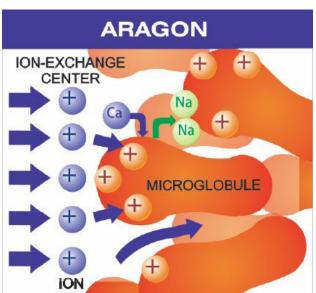
This high quality extruded carbon block cartridge is equally effective at purifying both hot and cold water.

Manufacture

Developed in Eastern Europe, these new SGS-polymers (space globular structure) material for water purification combines 3 methods of filtration: mechanical, sorption and ion-exchange, making this filter the best to date at removing the widest range of chemicals & heavy metals

Long polymer chains are formed in the production process, providing a porous yet mechanically strong structure. These polymer chains are coated and enable a highly effective ion exchange process.





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This method of SGS-polymer filtration is up to 20 times more effective than common methods of ion-exchange.

The Aragon filter is especially effective when using tank or bore water to protect the user from organisms such as Protozoa, Giardia & Chryptosporidium. Like wise, the Aragon compound filters water high in heavy metals often found in bore water and some tank water.

Filtration Process

Mechanical impurities are filtered out through the surface layers with extremely high accuracy. SGS-polymers have shown the best results in the complex removal of harmful impurities. Elements and compounds including heavy metals and radioactive materials are removed through ion-exchange and sorption mechanisms.

The Aragon solid block material is a bacteriostatic polymer made from additives of silver and granules of ion-exchange resins.

Hardness salts, dissolved and colloidal iron, heavy metals and there compounds are removed through the resin and polymer ion-

exchange properties. The Aragon filters capacity also provides removal of active chlorine, chlorine containing compounds and organic compounds.

-exchange and	
Aragon Media	
Carbon Block	

Specifications

Max Flow Rate:

10" Big Blue	25 litres p/m
20" Big Blue	50 litres p/m
Water Temperature	+4°C to +75°C
Filter Life:	
10" Big Blue	30,000 litres

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20"	Big	Blue	60,000	litres

Filtration Efficiency

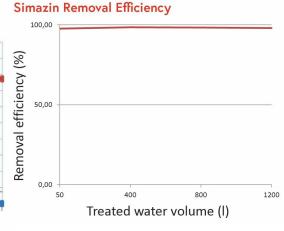
Particles >2 microns	100%
Lead, zinc, cadmium, cesium	.95%
Chlorine	100%
Chloramines	>90% +
Pesticides	92%
Iron	90%
Aluminium	97%
Turbidity	99%
Oil Products	90%

Heavy Metal Removal

Example: Lead Removal Efficiency Example: Iron Removal Efficiency

0,180,160,00-

Pesticides Removal





Institut Pasteur de Lille

France

The institute took its name from the famous French microbiologist Louis Pasteur, the founder and the first director. Louis Pasteur was buried in Notre-Dame de Paris cathedral for his prominent services to France, but later reburied in the territory of the Institute (Lille).

Important discoveries have been made In Pasteur Institute. That contributed to successful control of such virulent diseases as diphtheria, tetanus, tuberculosis, poliomyelitis, influenza, yellow fever and plague. In 1983 the human immunodeficiency virus was discovered in the institute. Since 1908 ten scientists of the institute have received Noble Prizes for Medical Science and Physiology.



How the Tests Were Conducted?







Photo: the modules and the housing presented to the Institut Pasteur de Lille

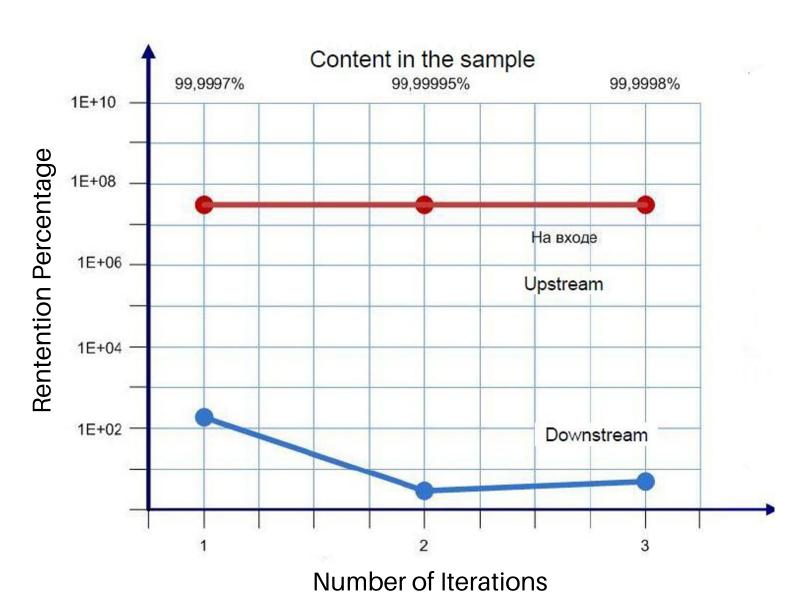
The filtering modules made of ARAGON were taken randomly from the batch. They were placed into a standard series-produced plastic housing. A peristaltic pump was used to circulate water through the modules. Each module was tested once. The tests were conducted with the use of artificially contaminated ultrapure water. Pollution-free water passed through the module prior to the experiment then contaminants were added and the treated water was collected after being filtered.

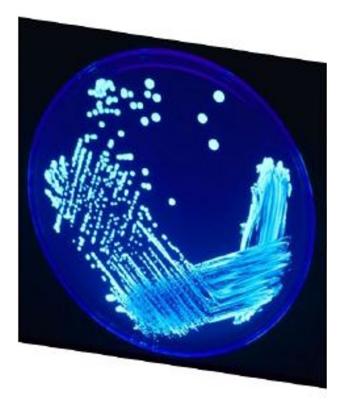


Removal of Salmonella

Salmonella is a mouse typhus agent. Nonspore-forming rod-shaped bacteria.

Length: 1-7 µm; width: around 0.3-0.7 µm. The salmonellas are gram-negative mobile facultative-anaerobic bacilli.



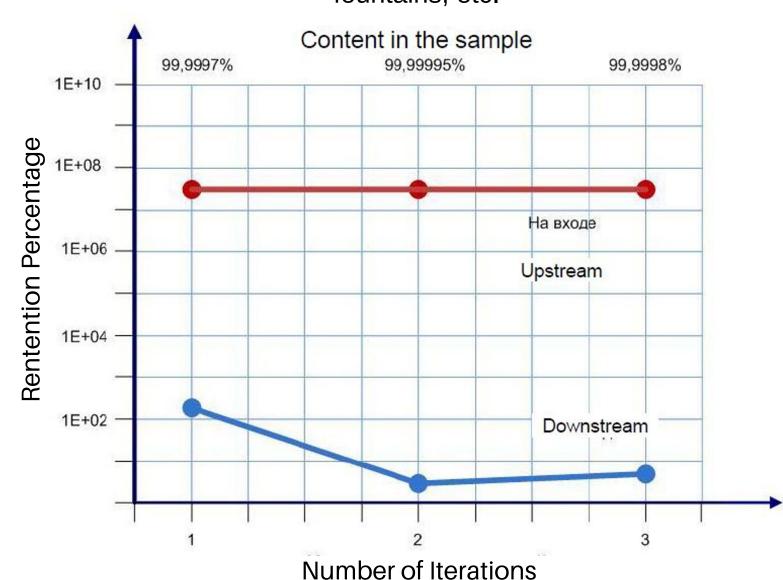


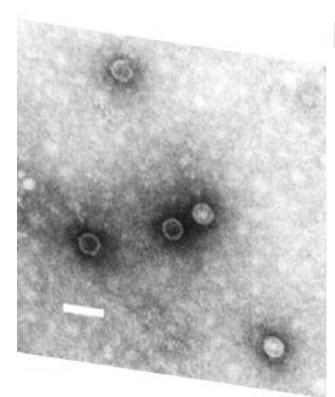
Removal of Legionella

Legionella pneumophila are pathogenic gram-negative bacteria.

Diameter: 0.2 to 0.7 µm,

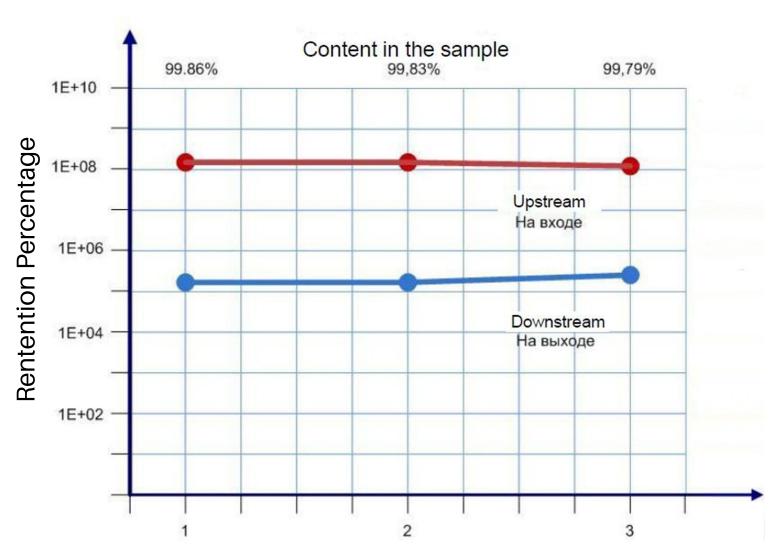
length: 2 to 20 µm. The inhabitation places of legionella are fresh water bodies and soil and also water supply and air conditioning systems in buildings, heating water converter plants and shower facilities, fountains, etc.

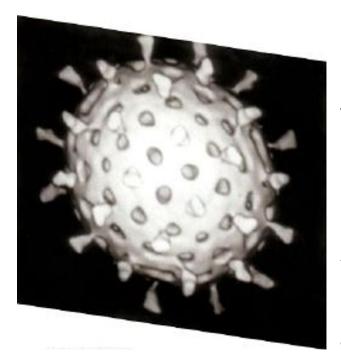




Removal of Poliovirus

Poliovirus (Poliovirus Strain Sabin type I)
belongs to the family
Picornaviridae, enterovirus
(enteric virus) group.
Virus size: 27-30 µm.
Production and titration were on the BGMK cells
(African green monkev's kidney).

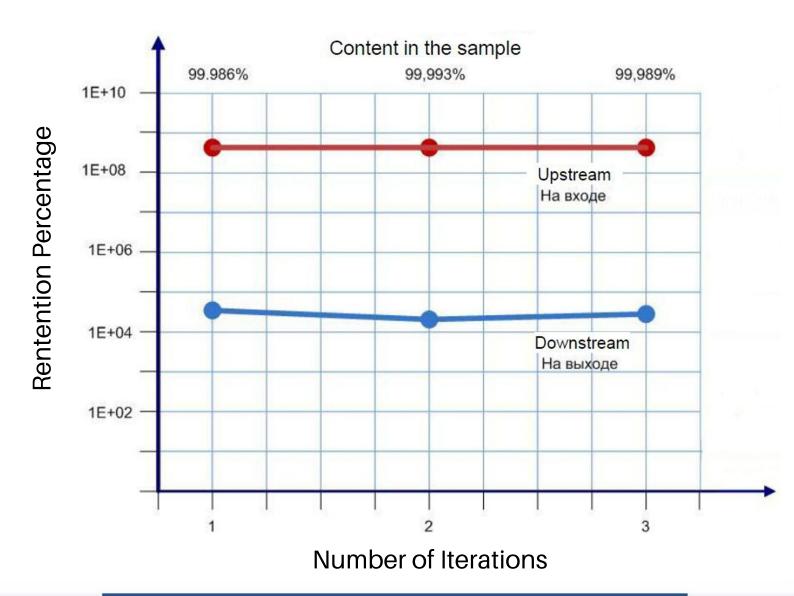


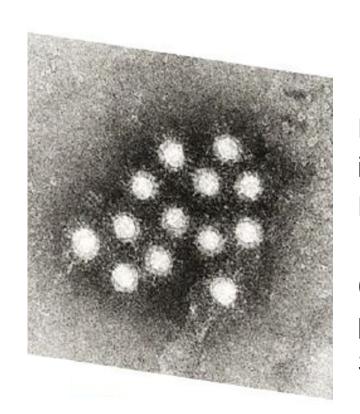


Removal of Rotavirus

Rotavirus is an enveloped virus with two-strand fragmented RNA belonging to the family Reoviridae, rotavirus infection agent.

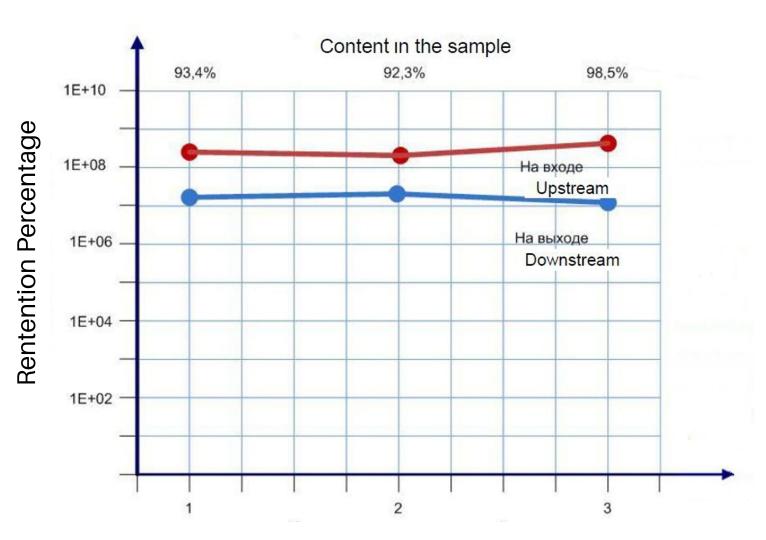
Virus size: 76.5 µm in diameter. Production and titration were on the primates MA104 cells.



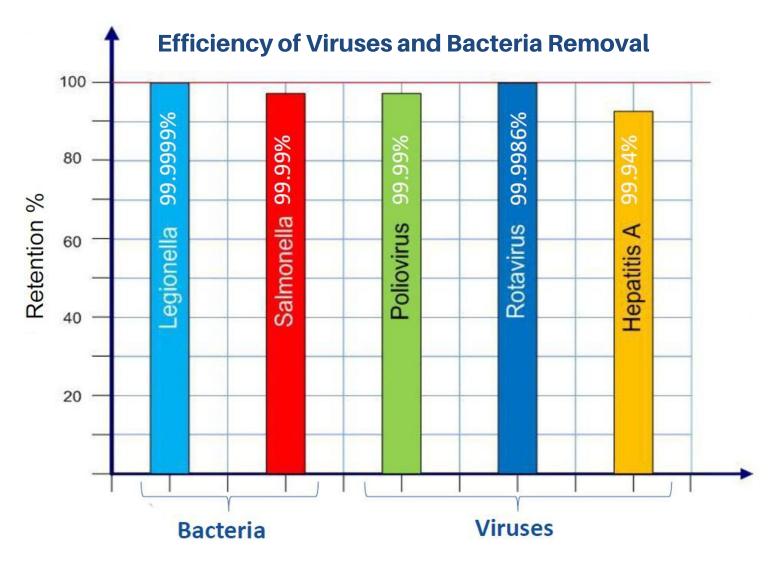


Removal of Hepatitis A

Hepatitis A (formerly known as infectious hepatitis) belongs to Picornaviridae family of viruses. It has no envelope and contains (+) singlestranded RNA packaged into protein capsid. Size: 27 µm in diameter.



Number of Iterations



Conclusion

Aragon BIO represents the most up-to-date technology for water treatment and viruses, bacteria and cists removal. That makes it possible to get completely safe and health-promoting water without boiling.

Aragon BIO can be used as well as the main element in water treatment and decontamination systems and as one of the pre-treatment stages, e.g. as a part of the membranes protection against bio contamination.

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Aragon BIO is comparable to polymeric UF/MF membranes (that are for domestic use) in efficiency. But it has greater productivity and significantly lower pressure drop.

Aragon BIO provides higher efficiency of filtration and kinetic absorption as compared to standard nonwoven fabrics including granular activated carbon.

Aragon BIO is absolutely environmentally-friendly. It can be used for potable water treatment and decontamination according to GOST R 51871-02, 51232-98.

Domestic Use

Potable water filtration both at home and outdoors Water supply of house

Water purification in emergency zones, (radioactive pollution conditions)

Water treatment in mainlines

Commercial Use

Treatment and purification systems for discharges Hot water supply (boilers)

Pre-filteration in the membrane filtering systems Pre-filters for mainlines



Alkahydrate Filter Cartridge

Alkalising & Mineralising Water Filter

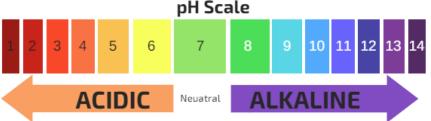


A healthy addition to your Water filter

The Aussie Water Coolers ALKAHYDRATE filter will provide you with enhanced water that is energised & mineralised. It raises the pH levels as well as producing antioxidant & oxygenating qualities. The filter also emits far-infared rays which result in shorter cluster chains in the water molecules-increasing the bio-available response & oxygen absorption in the body.

Benefits of Drinking Alkalised Water

- **Promotes better hydration:** Alkaline water has smaller molecular content making it easier for the body to absorb. The body can be hydrated more effectively by drinking alkaline water instead of everyday tap water.
- Alkaline Water is an antioxidant: Antioxidants help protect our bodies from free radicals that can cause various health problems. by drinking alkaline water you can help protect your body from diseases that can cause serious health issues.
- Effectively balances the pH levels of the body: Alkaline water helps by neutralizing the acid levels in the body. Although it works best as a preventive measure, those who already have an illness or disease can still drink alkaline water to speed up or at the very least assist the recovery process
- **Detox the Body:** A primary benefit of drinking alkaline water is its ability to wash away toxins that cause disease and illness. Drinking plenty of water is vital to good health
- Boost the immune system: Keeping our bodies in a more alkaline state will boost the immune system. This is a natural effect of neutralizing the free radicals and helping to cleanse the body of toxins.
- Lose Weight: Due to today's poor diets that consist of a lot of junk food, our bodies create more fat cells to neutralise the acid. This inevitably results in unwanted weight gain. Alkalised water neutralises the acids in the body removing the need for our bodies to create the extra fat cells. Alkalised water helps in weight loss because fat storage is reduced



Raise pH

The filter uses a series of different medias to effectively raise the pH level of your drinking water. Drinking alkaline water helps our body dissolve acid wastes - therefore making it easier for the body to dispose of them naturally. Since the accumulation of acid wastes is aging, the reduction of acid wastes is anti-aging!

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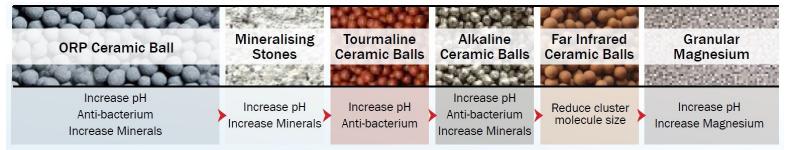


Alkahydrate Filter Cartridge

Alkalising & Mineralising Water Filter

Add Ionic Organic Natural Materials

Introducing natural minerals such as Calcium, Magnesium, Potassium and more. These ionic minerals are absorbed by the body to improve strength and function of body processes.



Lowers ORP

Far-infrared rays emitted by the filter media result in structurally smaller clusters of water molecules, making it easier for your body to absorb meaning you can stay better hydrated. The AlkaHydrate filter significantly increases the negative ORP (Oxygen Reduction Potential) enabling it to decrease the oxidation of substances or cells thus serving as a potent anti-oxidant.

What is ORP?

ORP – Oxidation Reduction Potential - is the ability of water or any other media to oxidise (or more importantly – decrease the oxidation) of another substance or body. For example - air, with a positive ORP will oxidise metal thus causing corrosion or rust. Essentially, any substance that oxidises, disintegrates. Water with a negative ORP has the ability to decrease oxidation hence prolonging the life of a substance or in this case our physiology.



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