# Ahlstrom Disruptor®

Nonwoven Filter Media for Water Purification

## AHLSTROM

### **Ahlstrom Disruptor®** Breakthrough technology for Water Purification

Not directly comparable to any other water purification media currently in the market, Disruptor<sup>®</sup> is an electroadsorptive technology, not a mechanical filter media.

Due to its crystal structure, the mineral creates a natural, strong positive charge which attracts the negative charge present on most submicron contaminants.

Its electro-positive wet-laid nonwoven technology, with a pore size of 1.2 - 1.5 microns, captures very small diameter substances and pathogens, removing larger particles mechanically.

When exposed to water having a pH between 5 - 9 a charge potential is generated by the natural crystal structure of the fibers overlapping further into the fiber pore structure.



#### Why choose Disruptor®

Performance – Disruptor® has the ability to efficiently and cost effectively remove a wide range of contaminants, such as bacteria/legionella, viruses, cyst, endotoxin, polysaccharides, collois, trace pharmaceuticals and other pathogens from water, making it safe to consume.

#### Energy Savings and Sustainability –

Disruptor® offers very high flux rates at lower pressure drops compared to competing technologies with similar biological removal performance.

Product Safety and Taste – Disruptor® removes effectively the pathogens and other contaminants, but in parallel maintaining the minerals for taste in the water without issues of handling "brine" waste water using RO systems. Compared to UF/ hollow fibers Disruptor® does not block easily and filter remains odorless even if not used for several days. All Disruptor® grades are complying under NSF/ ANSI 42 applicable drinking water requirements.

Flexibility – Disruptor® can be used as a stand alone solution or in combination with other technologies depending on the level of water purification needs. It can be used in pleated configurations to fit any size filter housing, or in the format of die cut flat samples.

#### How Disruptor<sup>®</sup> can be used

Due to the open media structure, Disruptor<sup>®</sup> can be used in a very wide range of end uses covering both pressurized water purification systems as well as gravity flow applications. In addition to outstanding pathogen performance products available also with special functionalities such as chlorine removal, heat-sealing, and antimicrobial treatment for preventing bacteria build-up. The removal of selected trace metals 1s also possible in given pH ranges.

Disruptor<sup>®</sup> can compete as a stand alone alternative to polymeric membranes or used in combination with other water purification technologies. Disruptor<sup>®</sup> media is also easy to convert and can be made into virtually any size filter cartridge.

#### Where Disruptor<sup>®</sup> can be used

Thanks to its features, Disruptor<sup>®</sup> is applicable both for point-of-entry (POE) and point-of-use (POU) applications.

- In a single or multi-layer Disruptor<sup>®</sup> stand-alone format for biological removal
- In a single or multi-layer Disruptor<sup>®</sup> stand-alone format for biological removal and chlorine removal
- In combination with CTO (Carbon Blocks) for biological removal and chlorine and/or heavy-metal removal
- Before RO system for reducing RO membrane fouling
- After RO system for biological removal and improved water taste
- Gravity applications such as countertop dispensers, rainwater treatment, roof top filters, etc.

#### PRIMARY APPLICATIONS

#### **Personal use**

Highly adaptable to small personal hydration devices such as water bottles and backpacks



#### **Residential use**

Disruptor<sup>®</sup> is applicable for both point-of-entry and point-of-use devices including whole house filters, countertop, tap, pitchers, appliance and under counter filters.



#### Ahlstrom in brief

Ahlstrom is a global leader in combining fibers into sustainable specialty materials. Our purpose is to Purify and Protect, with Every Fiber, for a Sustainable World. Our vision is to be the Preferred Sustainable Specialty Materials Company for all our stakeholders. We serve five growing and distinctive end markets, which form the basis for our five divisions: Filtration, Food & Consumer Packaging, Healthcare, Building Materials, and Technical Materials. Our pro forma net sales 2021 for continuing operations amounted to EUR 2.6 billion and we employ some 7,000 people.

Read more at www.ahlstrom.com

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