



1 UNIQUE GREEN MANUFACTURING PROCESS



Learn how
AFM[®] is produced



AFM[®] is manufactured from **100% recycled bottle glass sourced locally**, a raw material that already exists and needs to be reused.



Our production process is **100% energy self-sufficient**, using up to **1.2 gigawatts self-generated solar power** per year. Moreover, AFM[®] is cleaned and washed using **100% rainwater**.



Waste is separated and recycled or used in other industries. Sludge is responsibly disposed of or sold to biogas companies to produce **green electricity**.



WHAT ABOUT SAND AND CARTRIDGES?



Sand is a finite resource, and its mining causes local resource depletion and environmental harm. **Sand mining disrupts and destroys natural habitats, like riverbeds, wetlands, and coastal areas, resulting in habitat loss and damage to ecosystems.**

Cartridge filters are typically made from materials like polypropylene, polyester, or other plastics. The production of plastics, including the extraction of raw materials and the energy-intensive manufacturing process, can have a significant environmental footprint. **In addition, frequent replacement of cartridge is necessary and generates waste in the form of discarded filter cartridges, which usually end up in landfills.**

2 BETTER WATER & AIR QUALITY WITH UP TO 50% LESS CHLORINE...



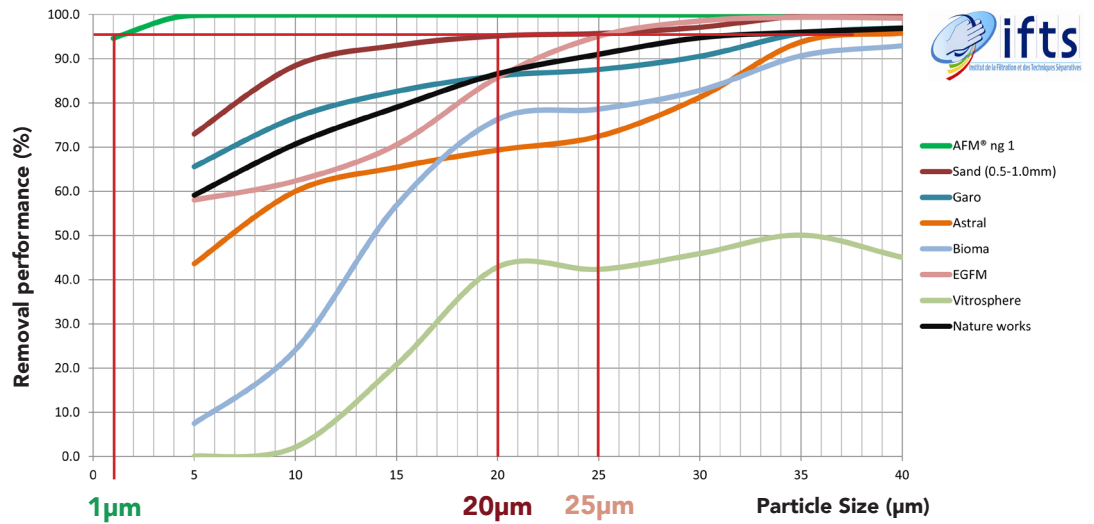
Download the
IFTS Test report

What is filtered out does not need to be oxidised. High filtration performance means less disinfectants are used, resulting in healthier water and better air quality at lower costs. **The greater filtration efficiency of AFM® will save 20 - 30% of chlorine compared to sand and 30 - 50% compared to cartridge filters!**



Cartridge filters are by far the least effective at filtering out fine particles and contaminants compared to other filtration methods.

This leads to poorer water quality and the need for more frequent chemical treatments.



AFM® ng filters 95% of all particles down to **1 micron.**

LOW



Sand filters 95% of all particles down to **20 microns.**

MEDIUM



Glass sand filters 95% of all particles down to **25 microns.**

MEDIUM - HIGH



Cartridges filter 95% of all particles down to **40 microns.**

HIGH

Chlorine demand

WHAT ABOUT LONGEVITY?



Cartridge filters have a very limited lifespan and typically need to be replaced every 1 to 2 years, depending on usage and water quality. Organic matter systematically clogs the cartridges, requiring more disinfectants.

Antiphosphates and flocculants cannot be used to reduce chlorine demand and improve water quality.

LOW



With sand and clear glass, biofilm in the filter develops to a degree where the grains stick together, forming clumps and causing channeling of the filter bed that reduces mechanical filtration performance overtime. **These media should be replaced every 3 to 5 years.**

MEDIUM



Green and brown glass, due to their metal oxide content, will be able to limit bacterial growth and the formation of biofilm in the filter bed. This can result in enhanced longevity, provided that they undergo proper backwashing.

These media should be replaced every 5 to 7 years.

MEDIUM-HIGH



By fully preventing bacterial growth and channeling in the filter bed, **AFM® filters work at constant high filtration efficiency down to 1 micron** and each filtration phase will show the same performance.

AFM® will last for over 20 years if the filters are backwashed properly.

VERY HIGH

Longevity

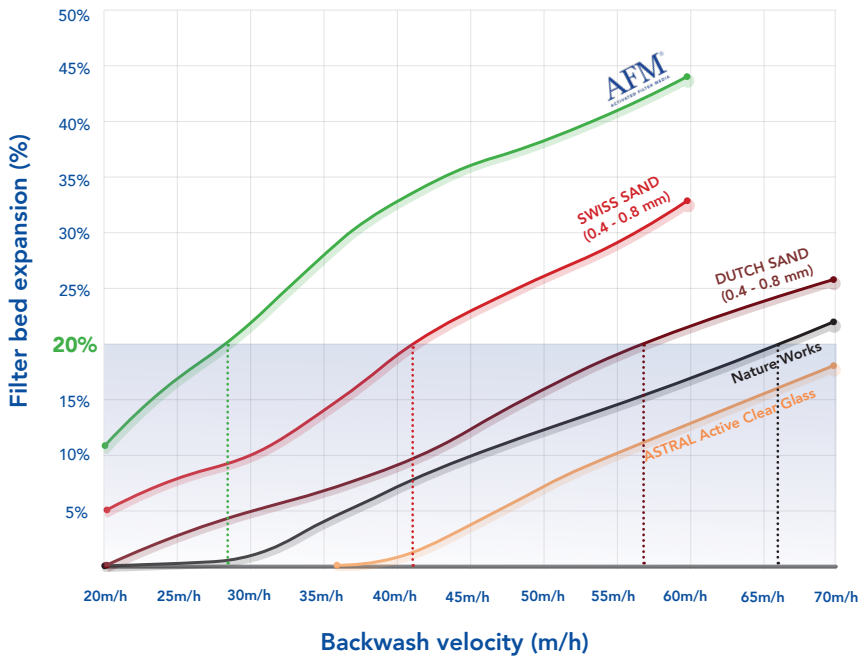
3 20% TO 80% LESS BACKWASH WATER COMPARED TO OTHER FILTER MEDIA



Save water with AFM® presentation

Proper backwashing of pool filters is essential for maintaining good water & air quality, reducing the consumption of pool chemicals, and ensuring the efficient operation of pool equipment. Regular backwashing also extends the filter's life, maintains pump efficiency - therefore reducing energy consumption. **To ensure an effective backwash process, it's essential to achieve a filter bed expansion of at least 15-20%.** This expansion promotes the proper fluidization of grains within the filter media, ensuring the removal of trapped particles, including those embedded in the media.

Filter bed expansion at 25°C



In contrast to certain other filter media like "NatureWorks" and "ASTRAL Active Clear Glass", which demand backwash velocities of 65m/h or higher, AFM® can be effectively backwashed with much slower backwash speeds, starting from 30m/h!

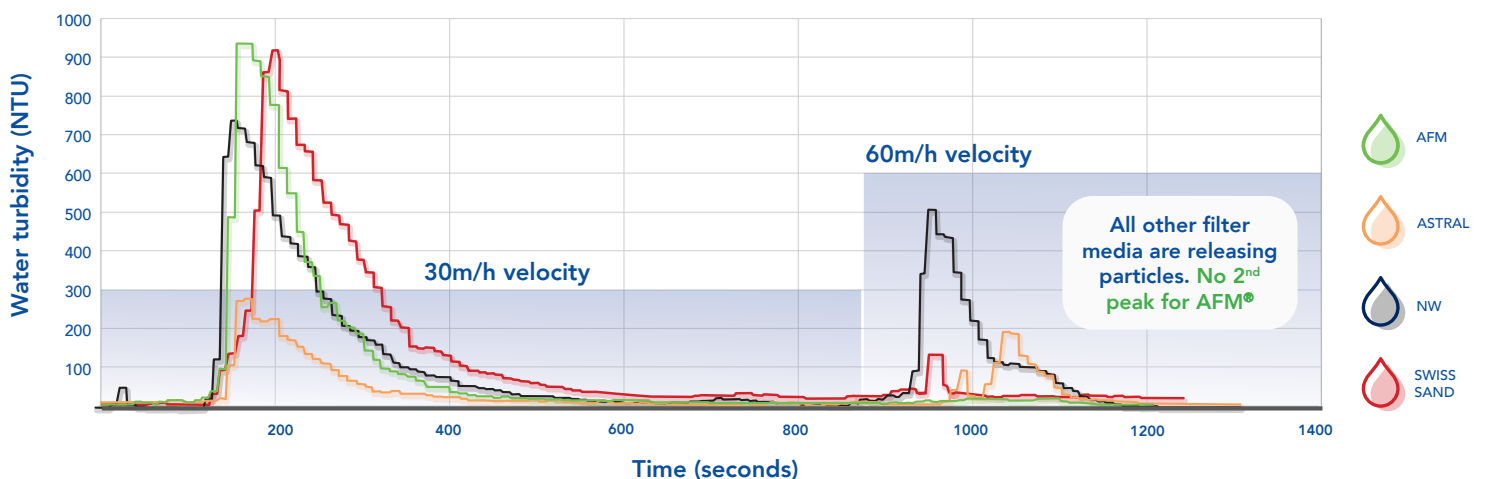


To control your backwash speed, use a flowmeter!

ALL OTHER MEDIA ARE NOT FULLY BACKWASHED AT 30M/H!

The graph below illustrates that AFM® is the only filter media suitable for effective backwashing at 30m/h.

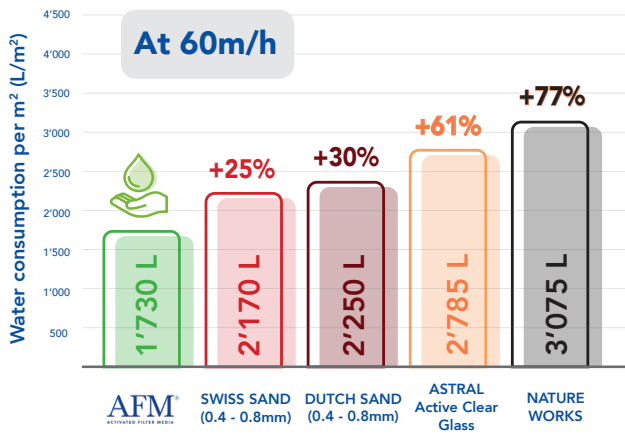
The testing procedure involves an initial backwash at 30m/h, during which the turbidity of the backwash water is measured. Subsequently, a second backwash process with increased velocity of 60m/h is conducted. While all other filter media exhibit a second peak indicating the release of additional particles, AFM's turbidity curve remains flat, signifying the complete removal of particles during the initial 30m/h backwash.



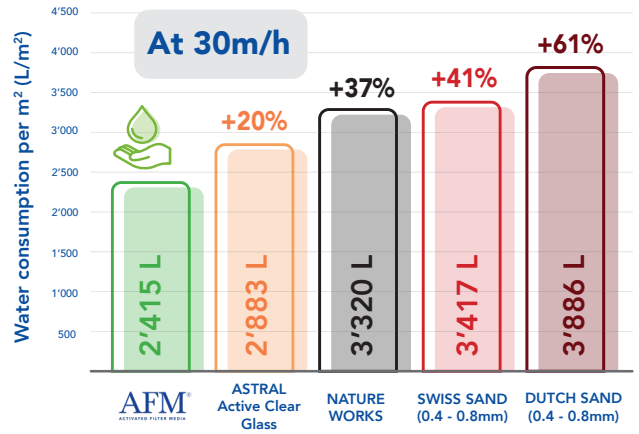
All other filter media are releasing particles. No 2nd peak for AFM®

SAVE WATER & MONEY WITH AFM!

Water consumed per m² of filter surface to backwash filter

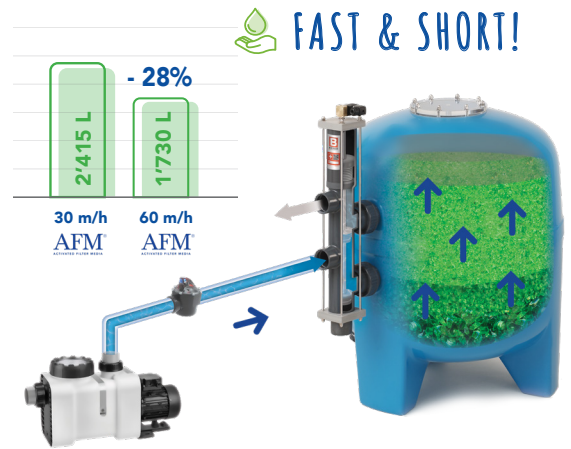


Water consumed per m² of filter surface to backwash filter



The charts depict the **water consumption in liters per square meter (m²) of filter surface needed to achieve an effective backwash** and achieve a 90% reduction in backwash water turbidity. Tests were conducted at velocities of both 60m/h and 30m/h, revealing two significant findings:

- 1 AFM® surpasses all other filter media in backwash efficiency, **using 20% to 80% less backwash water.**
- 2 To maximise water consumption, a faster and shorter backwash is preferable for all tested media. **For AFM® specifically, reducing water consumption by 28% was observed when backwashing at 60m/h compared to 30m/h.**



WHAT ABOUT CARTRIDGE FILTERS?

Cartridge filters, while considered water-efficient compared to sand filters because they don't require backwashing, still use water for cleaning. Periodic rinsing and cleaning involve removing cartridges, spraying them with water, which can be substantial if the cartridges are dirty. Additionally, chemicals are usually needed for effective cleaning. Last but not least, cartridge filters require cartridge replacement, which in the end is more expensive than backwashing sand or glass media.

THE MOST SUSTAINABLE FILTER MEDIA.

Due to its distinctive eco-friendly manufacturing process, superior filtration and backwash efficiency, and exceptional durability, AFM® stands out as the most environmentally responsible option for swimming pool water filtration. Chemical usage, maintenance, and operational expenses are significantly lower than those of sand, glass media, and particularly cartridge filters.

www.drydenaqua.com

Watch the video

