



## REVOLUTIONARY

HIGH PERFORMING FILTER MEDIA  
FROM RE-CYCLE CRUSHED  
GREEN GLASS

## REPLACE SAND

IN SAND FILTER WITH  
**ACTIVATED  
FILTER MEDIA**  
For Longer Life & Better Results

# THE AFM TECHNOLOGY HAS BEEN INTRODUCED WITH SUCCESS IN THE FOLLOWING INDUSTRIES



**DRINKING WATER**



**SWIMMING POOLS**



**WASTEWATER**



**INDUSTRIAL WATER**



**AQUA CULTURE**



# AFM® IS REVOLUTIONARY!

## ACTIVATED FILTER MEDIA

### • AFM® IS REVOLUTIONARY!

Activated Filter Media Eco-friendly & sustainable  
AFM Activated Filter Media is manufactured from recycled crushed green glass. Raw material is economical and sustainable (West green glass bottles).

### • HIGH-PERFORMANCE

Crystal clear water with zero turbidity. AFM can remove 80% of all particles in the water down to 4.5 microns. It can remove far more substances than sand or crushed glass filters by filtering about 30% more organics. It removes heavy metals like iron, manganese, chromium and arsenic; removes organic impurities and disinfection by-products in water. It reduces amount of BOD and COD in water and removes colour and odour from water.

### • BIO-RESISTANT AND SELF STERILISING.

No home for bacteria, viruses or other pathogens. No formation of bio-film. No Legionella. Hence safer and more economical in the long run.

As it does not bio-fuel, there is no mud ball formation and media replacement is not needed. So also, as no bio-film is formed, no channel formation takes place and filter function is not disrupted.

### • REDUCES CONSUMPTION OF BIO-CIDES AND FLOCCULANTS BY 25 TO 50%

Reduces the use of chlorine and the risk from resultant carcinogens and mutagens (cancerous and gene mutating compounds of chlorine.) Coagulant, backwash and biocide demand reduces substantially, thus saving cost of operation Overall chemical consumption goes down by 15 to 20%.

### • MAY NOT NEED TO REPLACE AFM IN THE ENTIRE LIFE-SPAN OF A FILTER.

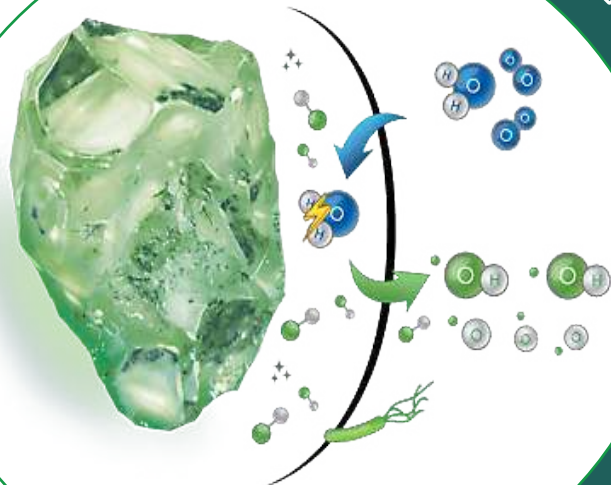
Performance of AFM has been tested for 15 plus years. No deterioration of performance was observed in that period, AFM also increases life of GAC activated carbon and RO/UF resins. Reduces SDI by 50% as compared to sand.

### • REACTIVATED BY A SIMPLE BACKWASH

Everything can be removed and filtered out in the backwash process. No requirement for additional oxidation.

### • SAVES WATER AND ENERGY.

# SELF-STERILIZING SURFACE RESISTANT TO BACTERIAL GROWTH



Water molecules and dissolved oxygen

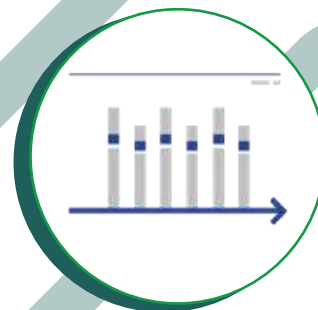
Transformed into free radicals on  
the surface of AFM® (catalytic reaction)

PREVENTS BIO FOULING AND PROTECT AFM® FROM BACTERIAL  
COLONISATION. FREE RADICALS OXIDISE DISSOLVED ORGANIC  
MATTER AND HEAVY METALS

**NO BIOFILM  
NO PATHOGENS**

**NO CLUSTERS  
NO CHANNELING**

**STABLE AND RELIABLE  
FILTRATION PERFORMANCE**



# 3 SECRETS OF HIGH PERFORMANCE

CHEMISTRY OF GREEN GLASS • PARTICLE SHAPE • ACTIVATION PROCESS

## • REVOLUTIONARY FEATURES OF AFM.

AFM is made of crushed green glass, which has the correct chemical and physical properties for our activation process. AFM is hydraulically optimised in terms of grain shape and size to enhance performance.

The surface area of AFM is processed to  $1000000/M^2$  and  $M^3$ . This is 300 times the surface area of sand. Greater surface area ensures superior adsorption of organic and small particles.

Hydraulic groups present on its surface give AFM strong negative charge known as the Zeta potential. The Zeta potential of AFM is  $>-70mV$  AFM is therefore highly effective in attracting many metals and organic molecules.

## • AREAS OF APPLICATION

AFM is used in chemical free pre-treatment processing for potable and waste water. It works as a molecular sieve and for mechanical adsorption like GAC. AFM can substitute filter media in rapid gravity sand filters or pressure sand filters. It can be a good replacement to crushed glass. It can also be a substitute for disc, bag and cartridge filters

### IT HAS APPLICATIONS IN:

**Potable water filtration:** For drinking water-domestic use filters, in food processing and beverage industry (feed water treatment) and in pharmaceutical sector.

**RO membrane pre-treatment (SDI control).**

**Swimming pool filtration:** Over 100,000 public and private pools are already using AFM.

**Waste water filtration:** AFM is used for removal of arsenic, chromium 6, colour and odour and for COD reduction in waste water.

**Process water treatment in power plants and pressure sand filters:** Among other things, it is used for removal of pseudomonas in process water.

**Raw water treatment in SWRO (Sea Water Reverse Osmosis) plants.** Controls bromates & biofouling in SWRO system.

## • COMPLIANCE

- AFM is certified under Regulation 31 in the UK and International NSF-ANSI 61.
- AFM is a filter material certified under European standards for drinking water. European Water Directive (98/83/EC) & (80/778/EEC).
- It is manufactured under ISO 9001-2008 quality procedures.
- AFM complies with BSEN12902 and BSEN 12904. • Approved by DST, Indian government.

## Waste Water

Can be used in existing system with minimal modification.  
No acid wash required or to change the filter every year.  
No biofouling of media & lump formation.  
BOD/COD/Color/Odor reduction.  
50% more organics removal as compared to sand.

## UF/RO/SWRO - Systems

50% better SDI reduction as compared to Sand.  
Increases the life of Membranes.  
Reduces load on membrane as 80% of 1 to 5 Micron particle removed.  
Prevents biofouling & Pseudomonas contamination in Ultra pure water.  
Better control on permeate, Reject & Conductivity.

## Swimming Pool

Crystal clear water  
50 to 60% Lower chemical consumption.  
Reduced Trichloramine formation,  
No biofilm, Legionella, MRSA, Staphylococcus.

## Drinking Water

**Used in all types of filter. (PSF,RGF,MGF,CSF),  
25-50% Improvement in filteredbed operation  
25-30% Reduction in Backwash frequency  
No channeling & Mud ball formation,**



## Heavy Metals Removal

**Successfully removes Iron, Manganese, Chromium, Arsenic, Lead  
By Oxidation & Adsorption of sub micron metal oxide particles.  
Physical filtration of most particle down to 5 1 micron.  
No chemical regeneration required.**

## Cooling Tower & DM plants.

**Increased resin life by 20 to 30%.  
Reduced consumption for resin regeneration chemicals (NaOH,HCL).  
Better control on conductivity & Resistivity.  
Side stream filtration for cooling towers.  
30% reduction in chemical consumption.  
Make up water pretreatment.**



# PACKING

AFM is supplied in 25 kg bags or 1000 kg big

Grade	Sizes <sub>(mm)</sub>
Grade 0	0.25 to 0.50
Grade 1	0.45 to 1.0
Grade 2	1.0 to 2.0
Grade 3	2.0 to 4.0

