

NEW FOR 2020

EVOLUTION  
AQUA  
INNOVATION IN WATER

# K+ Media

K Plus Advanced Filter Media



## New Evolution Aqua K+Media

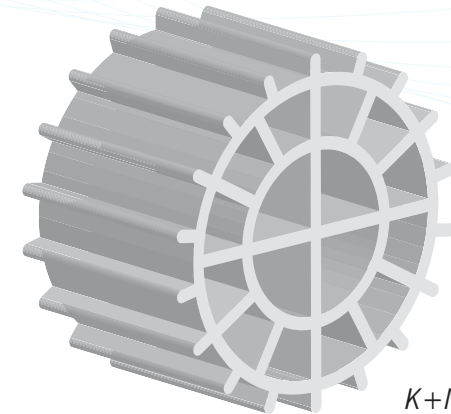
Plastic media, for use in biological Pond filters - specifically in moving bed bio reactors, was pioneered by **Evolution Aqua**, some 20 years ago. In recent years, other plastic media have come onto the market, usually with the aim of trying to get more and more surface area. However, one drawback to using plastic media has always been the time it takes to establish a stable biofilm – essential for good filtration.

After many years of **research**, **Evolution Aqua** have now developed a new media that not only gives **class leading surface area**, but also overcomes the problem of long maturation times.

### ADVANCED FILTER MEDIA

**K+Media** is designed and manufactured in the **UK** by **Evolution Aqua**. This **advanced media**, with its **innovative design**, and **class leading surface area** provides **enhanced biological** and **mechanical** filtration.

As Evolution Aqua extrude the **K+Media**, **Minerals** and **Enzymes** are added to the raw material. The result of this process, unique to **Evolution Aqua**, is a filtration media that not only outperforms most of its competitors due to its **large protected surface area**, but also answers the problem of how to **speed up** the time taken to **mature your filter**.



*K+Media*



# K+Media

K Plus Advanced Filter Media

## New Advanced K+Media

### KEY FEATURES

- Class leading total surface area 1350m<sup>2</sup> per m<sup>3</sup>
- Vast protected surface area 1025 m<sup>2</sup> per m<sup>3</sup>
- Filters mature faster with K+Media
- Minerals, magnesium, calcium, salt and enzymes incorporated into each piece during extrusion process
- Design and structure of K+Media allows a stable bio-film to form
- Microscopic organisms such as Rotifers and *Vorticella spp.* thrive in “quiet zones”
- Exceptional solids removal thanks to efficient design
- Reduced energy consumption, less back pressure on pumps
- Used in Nexus+ filters for improved biological filtration in moving bed
- Available as floating or sinking versions in 50 litre bags

# EVOLUTION AQUA

INNOVATION IN WATER



EVOLUTION  
AQUA  
INNOVATION IN WATER

NEW

# K+Media

## K Plus Advanced Filter Media

- Class leading protected surface area - 1,025m<sup>2</sup> per m<sup>3</sup>
- Moulded with minerals for faster beneficial bacteria development
- Floating version ideal for moving bed pond filters / MBBR
- Sinking version ideal for down-flow filters

FLOATING (White)



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50 Litre

1.77 cu.ft.



Evolution Aqua Ltd.  
Kellet Close, Wigan, Lancashire, England, WN5 0LP

[www.evolutionaqua.com](http://www.evolutionaqua.com)

## For Better Biological Filtration

### MINERALS ADDED FOR FASTER FILTER MATURATION

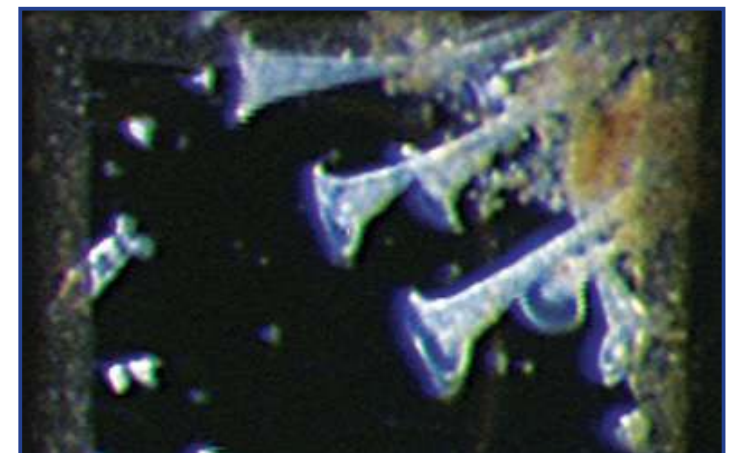
During the extrusion process, Evolution Aqua add a range of **minerals**, along with **magnesium**, **calcium**, **enzymes** and **salt** to the raw material that is used to manufacture **K+Media**.

The result means that **K+Media** will **mature much faster** than many other types of media.

- The addition of these minerals creates a **rough surface** on the media. This textured surface has a microscopic honeycomb of peaks and craters that allow waste particles to collect, and **nitrifying bacteria** to form.
- The minerals act as a **food source** for the bacteria, helping the bacteria to **develop** and **multiply** at a faster rate, further **improving maturation times**.
- Calcium alone has **proven advantages** for developing and maintaining effective bio-films.
- The **enzymes** that are added also help to make the media “sticky” so waste particles can adhere to media easier.
- Salt is added during the extrusion process, which is dissolved during the cooling process, leaving a rough surface on which **bio-film can easily adhere**.



*K+Media moving bed*



*Nitrifying bacteria develop faster*

## For Better Biological Filtration

### INCREASED SURFACE AREA

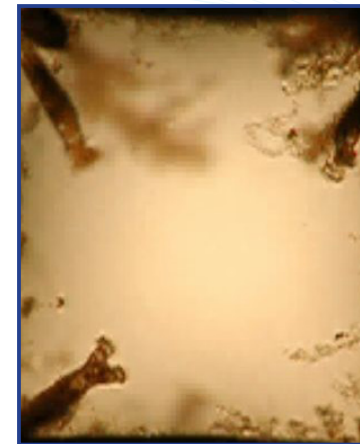
With a **new shape and profile**, **K+Media** has also been designed to have an **increased and class leading surface area**, meaning an **overall surface area of 1350m<sup>2</sup> per m<sup>3</sup>**. More importantly for biological filtration, the **protected surface area of K+Media is 1,025m<sup>2</sup> per m<sup>3</sup>**. This allows a **stable bio-film** to form and remain intact when used in moving bed biological filtration, as in the new **Nexus+**.

### STABLE BIO-FILM DEVELOPMENT

The shape of **K+Media** optimises the amount of “**quiet zones**” within the media where a stable bio-film can develop. Whilst **K+Media** keeps the integral profile of K1 Media at its core, there is an extra layer of cells and fins around the outside of each piece that enable microscopic organisms such as **Rotifers** and **Vorticella spp.** to thrive. This is an additional benefit as competitor media do not have such “quiet zones” that would allow these higher lifeforms of filter feeders to develop. The bacteria and organisms that form within the bio-film ensure the media delivers optimum levels of biological filtration in the moving bed, which has been **proven filtration technology** for many years in the fishkeeping hobby.

### USE WITH PURE POND PRODUCTS

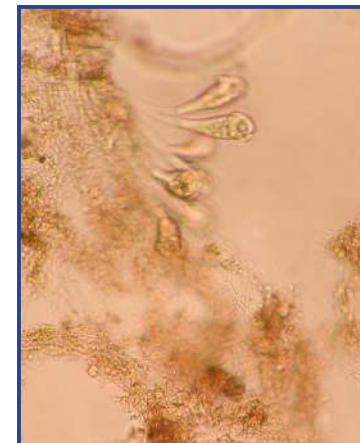
Evolution Aqua also recommend using **K+Media** in combination with the **PURE POND** and **PURE+ FILTER START GEL** to **boost bacteria levels** which in turn will stick to the media and **speed up the maturation process even more**.



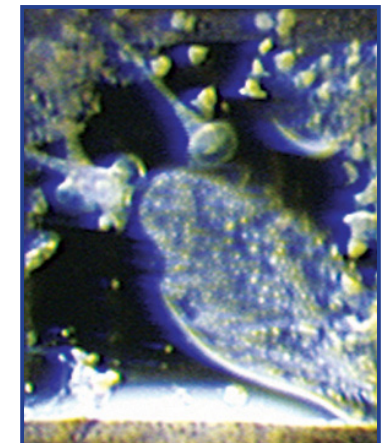
*Organisms within bio-film*



*Daphnia*



*Vorticella spp.*



*Stable bio-film*

## Key Points Overview

### NEW

Advanced  
**K+Media**  
engineered  
with a new  
design for  
improved  
filtration



### LARGER

**1025m<sup>2</sup>/m<sup>3</sup>**  
Protected  
Surface Area  
and  
**1350m<sup>2</sup>/m<sup>3</sup>**  
Total  
Surface Area



### STABLE

**Bio-film  
can develop**  
within the  
quiet zones to  
allow rotifers,  
vorticella etc  
to thrive



### FASTER

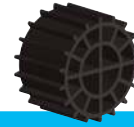
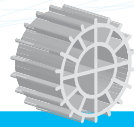
**Filter  
maturation  
times**  
thanks to  
**minerals**  
incorporated  
into K+Media



### CHOICE

**Floating  
version**  
for MBBR  
and  
**sinking  
version**  
for down-flow

## Specifications



Media	K+Media	K+Media
Gravity	Floating	Sinking
Diameter	10.2mm	10.2mm
Total surface area	1350m <sup>2</sup> per m <sup>3</sup>	1350m <sup>2</sup> per m <sup>3</sup>
Protected surface area	1025m <sup>2</sup> per m <sup>3</sup>	1025m <sup>2</sup> per m <sup>3</sup>
Length	8mm	8mm

- Available in bags of 50 litres
- Floating version is coloured white
- Sinking version is coloured black

