

# MUTAG NEWSLETTER

Biological Water Treatment

SEPTEMBER 2020

## 6 Things About the Mutag BioChip™ We Want You To Know

As the developer and manufacturer of the Mutag BioChip™, we never stop improving and optimizing our product. Research, development and internal testings are continually being performed to provide an improved Mutag BioChip™ to our clients. Since it was first produced in 2008, the Mutag BioChip™ has undergone several improvements and changes. Did you know:

# 1

### 5,500 m<sup>2</sup>/m<sup>3</sup> Active Surface Area

The latest version of the Mutag BioChip™, which is known as the Mutag BioChip 30™, has an active surface area of 5,500 m<sup>2</sup>/m<sup>3</sup> for biomass to attach.

[Fun Fact: The surface area of the Mutag BioChip 30™ is actually larger than 5,500 m<sup>2</sup>/m<sup>3</sup>.]

# 4

### Durability

The PE composition of the Mutag BioChip 30™ is higher than the previous models. This makes the already strong Mutag BioChip™ stronger to resist mechanical tear and wear as well as abrasion, preventing the formation of micro plastic. It is really an environmentally friendly carrier media

[Fun Fact: The lifetime of the Mutag BioChip™ is at least 10 years and even longer.]

# 2

### No Clogging

The paraboloid shape of the Mutag BioChip 30™ creates a directional shear force on top of its surface when it moves around in water. This directional force shears off biomass that grows outside of the Mutag BioChip™'s pores, keeping only the biomass that is inside the pores.

# 5

### Worldwide 800 Applications

As of today, worldwide there are more than 800 water and wastewater treatment applications using the Mutag BioChip™ for COD/BOD removal, nitrification, denitrification and ANAMMOX. These applications cover municipal and industrial wastewater, as well as aquaculture and ornamental fishing.

# 3

### Optimal Biomass' Thickness and Better Removal Rate

Besides preventing clogging from happening, the shear force also keeps the biomass on the Mutag BioChip™ at optimal thickness, which is around 0.5 mm. A study done by Nanyang Technological University shows that the substrate removal rate of aerobic granules (biomass) with a size of 0.5 mm was almost three times of that of aerobic granules with a size of 1 mm. By having the Mutag BioChip™'s thickness at 1.1 mm and biomass living only inside the pores, we make sure that all the biomass growing on the Mutag BioChip™ is active to treat your wastewater.

# 6

### Engineering Service and Support

Together with the Mutag BioChip™, we also offer related engineering service and support based on the Mutag BioChip™. Services like energy and project feasibility checks can be ordered from us. These services provide users of a better idea (on paper) of what they can gain and save by using the Mutag BioChip™, as well as a sense of security for what is to be expected from their existing treatment systems.

**It's simply brilliant!**

**MUTAG**

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