

MUTAG

Biological Water Treatment

Biological water and wastewater treatment

Highly efficient and sustainable

Mutag
BioChip™

The latest generation of
MBBR/IFAS media with
extremely high removal rates



The Mutag BioChip™ for extremely high removal rates and reliable process stability.

Mutag BioChip™ is used for the immobilization of microorganisms which are in charge of the different biological water treatment processes for challenging industrial and municipal wastewater.

The treatment processes are aerobic and/or anaerobic/anoxic and can remove even very large pollutant loads in small footprint systems. This means that the treatment tanks can be made much smaller than with traditional plants, and existing plants can be optimized, furthermore reducing energy consumption and thereby total costs significantly.

Large active surface area

Microorganisms need a high and fully available protected surface area for highly efficient biological water and wastewater treatment. It is not the volume of carrier, **but the area of the active protected surface which is important.**

The large surface area of the Mutag BioChip™ (up to 5,500 m²/m³) provides extremely high removal rates and process stability, especially in nitrification, COD removal and denitrification.

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The Mutag BioChip™ is completely free from phthalates and other plasticizers. It does not contain any questionable compounds which may be harmful to the environment. Furthermore, it does not emit microplastics. We work with serious partners and suppliers and demand the highest quality from them. Our production runs on green energy from wind-turbines. We always focus on using the newest technology in our production to reduce our carbon footprint.

We support the Sustainable Development Goals - UN 17 World Goals – especially no. 6, that focuses on water quality, clean water and to use wastewater better.

The high performance and many advantages of the Mutag BioChip™, as well as the high and strong quality of the material, has been proven in more than 800 applications all over the world.



Mutag BioChip™
has a protected surface
area of up to

m²/m³

5000

What is so unique and innovative about the solution with Mutag BioChip™

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...characteristics which prove that the Mutag BioChip™ is unique on the market:

PRODUCT DATA:

Material:	virgin Polyethylene (PE)
Size:	ø 30.0 mm
Thickness:	1.1 mm
Specific gravity:	0.95 kg/l
Bulk weight (net):	165 kg/m3 (±2.00%)



INCREASED SURFACE AREA:

Larger surface area = potential major bacterial growth in the pores of the carrier media, which results in a higher concentration of biomass that leads to reduced volume requirements

REDUCED ENERGY CONSUMPTION:

Reduced energy consumption for aeration and mixing (compared with conventional carrier media)

SECURITY FOR BIOMASS:

Security for the bacteria colonization due to the special surface with high-quality pore system

OPTIMAL DIFFUSION DEPTH:

Control of the biofilm thickness and therefore an optimal diffusion depth for substrates and oxygen. No limitation to the biological processes

SELF-CLEANING:

Self-cleaning carrier media which ensures a thin and always active biomass

NO DEAD ZONES:

Avoidance of dead zones which means that the entire surface area is used for the biological processes

LONG LIFE MATERIAL:

Paraboloid shape and protection ring ensure no signs of wear and tear. Long lifetime of the material without substitution

EASY RETROFIT & UPGRADE:

Ideal to add when there is no possibility to build new tanks or no space left. All plants are easy to manage and to operate

LOW PRODUCTION OF SLUDGE:

Low sludge production due to thin and controlled biomass

WIDE-RANGE APPLICATION:

Designed to be used in all biological treatment applications



MUTAG is specialized in the engineering of complete wastewater treatment plants operated with Mutag BioChip™ carriers.

ABOUT MUTAG:

MUTAG is a knowledge-driven company, working with biological, sustainable, and high-technology water treatment processes. Building on more than 20 years of practical experience, we are one of the leading manufacturers of Bio Media for biological water and wastewater purification.

We take the responsibility for the future as well as our planet serious and want to make a real change in the battle of ensuring clean water as an accessible resource on earth for everyone.



KNOWHOW AND SERVICE:

- MBBR plant design
- Design of process air supply
- Design of carrier retention screens
- Tank design
- Process engineering
- Support during construction
- Commissioning
- After Sales Service

WHAT WE ARE:

MUTAG is one of the preferred partners within the field, due to our experience, knowledge sharing as well as product and process optimization. Globally, and not least because of our approach to biological water treatment - contrary to chemical water treatment. Our method & philosophy are green, and our product is many times more efficient than market alternatives.

THIS IS WHAT WE DO:

At MUTAG, we know the value of integrated solutions. We have the experience and competence to calculate and design, advise, and qualify, deliver, and implement as well as offer subsequent analysis, service, and optimization. We take water treatment seriously and prefer working as all-round partner to ultimately achieve the most optimal conditions and results together.

THIS IS WHAT YOU GET:

MUTAG provides design and carrier media for biological wastewater treatment plants, an excellent Engineering Service and support for all specific customer needs and requirements. The outstanding quality of the material as well as the high-tech structure of the surface and the fine pore system, are only a few of the many benefits you can gain from this media.