



Water & Environmental Technologies

BioSec®

Municipal and General Industry

Enzymatic Solution Improves Sludge Cake Dryness

The cost of sludge treatment can account for up to 50% of an industrial or municipal wastewater treatment plant's operating budget. As costs continue to increase, industrial zones in urban areas with rising populations are finding fewer disposal options available. At the same time, stricter regulations are forcing plants to meet higher standards of treatment.

BioSec®: The Most Effective Biological Solution for Mechanical Dewatering of Digested Sludge

Making wastewater treatment as efficient and sustainable as possible has never been more important. This also applies to dewatering of the sludge created by a wastewater system.

What if there was a more efficient way to improve sludge cake dryness and at the same time cut costs for polymers, energy, and disposal? To make this possible, the BioSec platform was developed.

The Benefits of Using BioSec

Lower operating costs

- Reduces polymer, energy, and disposal costs

Improved plant efficiency

- Improves dewatering performance with enzymes that actively degrade the colloid materials
- Improves flocculation, even with lower polymer dosage
- Significantly increases sludge cake dryness after dewatering
- Improves the quality of reject water

Simplified operations

- Avoids CAPEX with a plug-and-play solution
- Requires only 0.5 kg enzymes per ton of total solids

How Enzymes Contribute to More Efficient Dewatering

The higher the colloidal content of the sludge, the more difficult it is to dewater. Colloid levels tend to be higher in digested sludges, due to solids degradation. BioSec® makes dewatering more efficient by degrading the colloid materials in the sludge, which allows the flocculant to work more effectively.

Results

At a municipal wastewater treatment plant in Copenhagen (400,000 PE), full-scale field trials under normal operational conditions reduced polymer use by 15-20%, improved cake dryness by 1.5-2%, and maintained or even improved the quality of the reject water. BioSec® is now dosed continuously at the plant.

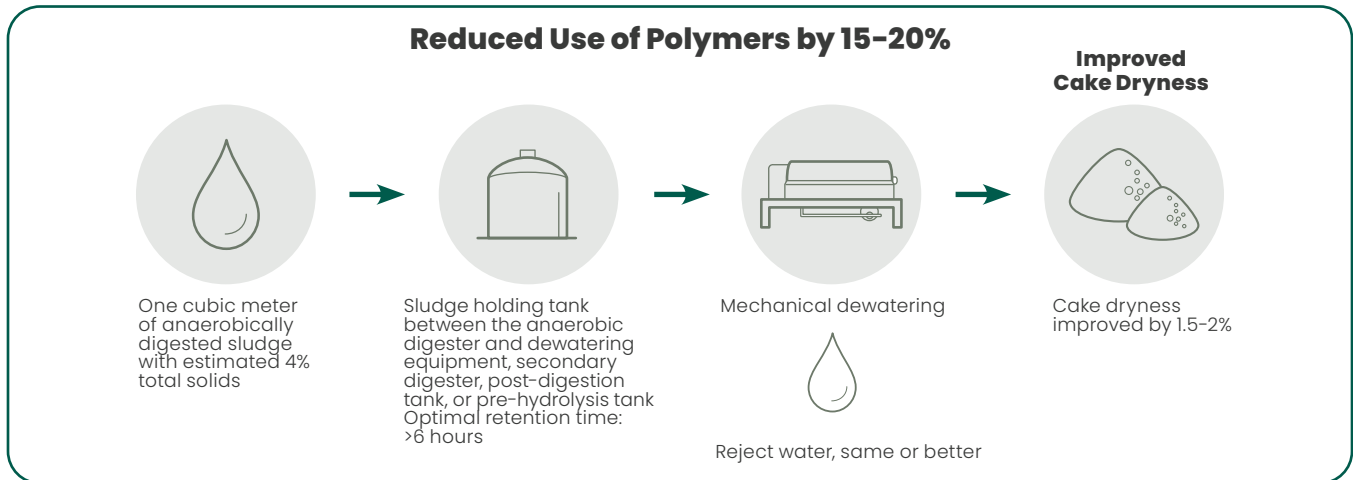
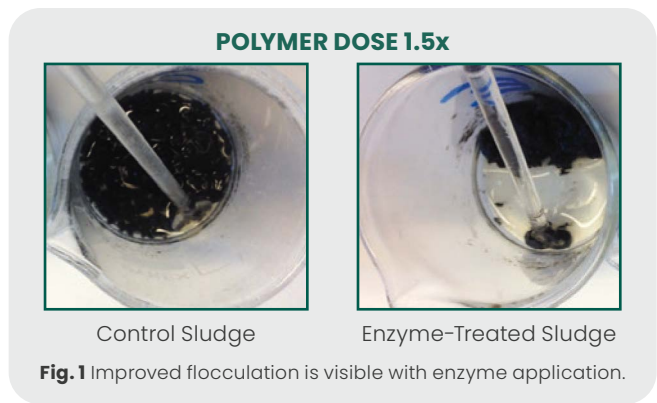


Fig. 2 Full-scale trial results at Copenhagen wastewater treatment plant.

Micro Solutions. Major Impact.

Clean water is essential for healthy people and a healthy planet. EnviroZyme’s microbial solutions use bioaugmentation to naturally and efficiently treat water before it’s returned back into the system. Our team of experts have come together to create environmentally-focused microbial solutions and technical services to support water resource recovery facilities in their global quest to provide clean water.

Billions of microorganisms at your service.

SKU #	PRODUCT	BENEFITS	SIZE
Enzymatic Conditioning			
WTL940FM2	BioSec® C	BioSec® is used to increase cake dryness and decrease flocculant consumption during mechanical dewatering of digested sludge.	25 KG
WTL941FM2	BioSec® P (EU)		25 KG
WTL9411FM2	BioSec® P (US)		25 KG

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Item #E947-9216 08/23