

# INFORMATION

## orgaMin 575

### SEWAGE SLUDGE REDUCTION AND ENERGY YIELD

The residual material sewage sludge has been stabilised and utilised in digesters for years. This has several positive effects, such as the generation of digester gas, the reduction of sewage sludge volume and the degradation of organic pollutants. The rising utilisation costs for sewage sludge and the goal of an energy self-sufficient sewage

treatment plant bring the issue of increasing the efficiency of digesters to the fore.

In addition to technical repair and renovation, upgrading the digester biology is a good way to have a direct influence on sewage sludge degradation and digester gas production.

### OUR SOLUTION: MWK bioEngine orgaMin 575

MWK bioEngine orgaMin 575 was developed to make maximum use of the energetic potential of sewage sludge and to reduce the amount of sewage sludge to a minimum. We work with a combination of microorganisms and trace elements. In this way, we not only supplement the microbiome, but also adjust the framework conditions so that optimal metabolic and growth conditions are created in the digester.

Hydrolysis in the digester is the limiting step for gas production and speed of the process. Fat, protein and carbohydrate compounds are excluded and made available for acidification in the form of fragments and dissolved polymers.

By using MWK bioEngine orgaMin 575, the microbiome is supplemented in such a way that compounds that are difficult to break down are broken down more quickly and unavailable compounds are split up. In addition, the framework conditions for methanogenesis are adapted so that the conversion of organic acids to methane can proceed unhindered.

Trace elements in the digester play a central role in growth and metabolism. Microorganisms require a certain concentration to maintain metabolic function and an even higher concentration to simultaneously build up cell substance for reproduction.

### EFFECT:

- Enhanced methane production in the digester due to increased decomposition of organic compounds
- Improved dewaterability due to the lower proportion of organic matter in the digested sludge
- Higher degree of stabilisation of the digested sludge
  - Reduction of sewage sludge volume
  - Through higher turnover of organic mass in the digestion tower
  - Due to better water separation or higher dry residue

Please observe the application instructions and the safety data sheets.

