



This product was developed by VTA Group R&D.

By being broken down into particles of mere fractions of millimeters the size, a material can take on entirely new properties. The metallic nanoparticles contained in **VTA Nanofloc®** are firmly attached to a matrix of organic charge carriers.

ENHANCED SEDIMENTATION PROPERTIES



- enormous increase in sedimentation rate (up to five times quicker)
- creates extremely compact shear-resistant sludge flocs in record time
- reliable binding of micro flocs and suspended solids

FOR SPECIAL CASES



- helps reduce extraneous materials
- reduces micro-impurities
- problematic operating conditions with permanent hydraulic overload, etc.
- acute, exceptional circumstances unforeseen impact loads, etc.

COST-EFFECTIVE



- improved oxygen transfer
- reduces ventilation energy
- faster reduction of pollutants
- maximizes the hydraulic potential of a sewage treatment plant

ADVANTAGES IN SLUDGE TREATMENT



- immediately noticeable and lasting improvement of sludge properties
- increases the content of dry substance
- minimizes the use of polymer
- reduces backloading

Compared to their volume, nanoparticles have an extremely large surface area and therefore very strong surface energies. This allows even a small concentration of **VTA Nanofloc®** to have an enormous catalytic effect when used in activated sludge. The desired chemical reactions are triggered significantly faster – even at extremely low dosages.

At the nanoscopic scale, the metallic base material contained in **VTA Nanofloc®** multiplies its original magnetic pull.

This effect allows the charge equalization to take place inside the sludge floc, and not – as is usually the case – on its surface. This results in extremely compact flocs. A breakup can be almost excluded, even under unfavorable conditions.