



enhanced
by Omya

Omya Optical

A Natural Product to enhance
the Activated Sludge Process



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Omya Optical – Naturally enhanced Activated Sludge Process

The activated sludge process relies on bacteria and Protozoa breaking down impurities in wastewater. The impurities form flocs that can be extracted, resulting in cleaner, safer water. The flocs themselves can be reused to improve the efficiency of the system. Correct floc formation is a critical aspect of the system. Omya Optical helps ensure that even through unpredictable conditions, flocs remain stable, extraction is consistent, and the system works efficiently.

*Omya Optical helps
biological treatment
processes maintain
peak efficiency*

Reinforcement of Acid Capacity and Strengthening of Floc Structure

There are several reasons for poor floc formation. One of the reasons is the lack of Acid Neutralizing Capacity (ANC) in the water. This causes small, poorly dispersed flocs with a poor buffering capacity. A drop in the pH will often result in corrosion of the system, compounding the problems. Sometimes the secondary sedimentation tanks are too small for the hydraulic load especially during storm water events like, heavy rain falls and snow melting.

Here are some of the Omya Optical advantages:

- Omya Optical increases the Acid Neutralizing Capacity, ensuring the process remains stable even under unpredictable conditions
- Omya Optical remains in the water and provides a buffer against drastic pH changes
- Overdosing Omya Optical results in no undesirable effects
- Omya Optical seeds and provides ballast to the flocs, improving settling behavior
- The minerals in Omya Optical help support the biological process ecosystem
- Omya Optical provides a large surface area for inorganic substrates, without reducing the sludge loading



Benefits

- *Stablized bioflocs*
- *Reduced turbidity*
- *Increased storm water capacity*
- *Improved dewatering performance*
- *Improved environment for Nitrifying Bacteria*

Omya Optical – 70 million years in the making

Our mineral deposits originated 70 to 100 million years ago, when much of Europe was submerged. In coastal shallows, the shells and skeletons of small organisms, over millions of years, formed abundant mineral deposits. These sediments have retained their unique structure and exhibit an extraordinarily large surface area of 5-6 m²/g. As a result of its micro-structure, Omya Optical is highly reactive and has very good absorptive properties, much better than crystalline Calcium Carbonates and calcium oxide.

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- *High reactivity*
 - *Good dispersibility*
 - *Easy handling*
 - *Non-hazardous material*
 - *No risk of accidental
pH spike*







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More Than pH Adjustment

Omya Optical is much more than a pH stabilizing mineral. It has a positive effect on the whole wastewater treatment process.

- Stabilize bioflocs
- Provide ballast to the Sludge
- Improve secondary sedimentation
- Improve water clarity
- Improve dewatering performance
- Protect against facility corrosion

Every sewage treatment plant has its own unique characteristics. We offer a bespoke service, to solve your technical issues. This includes preliminary laboratory testing, de-watering performance tests, through to the installation of appropriate dosing systems.

Naturally, we would be happy to support your plant's unique needs and meet your definition of success.



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