

PRODUCT DEVELOPMENT: Intelligent Flocculants Adjusting To Individual Conditions

ACAT always strives to identify customer needs and to evaluate opportunities to align its own product development. Our latest development: FlocStar® Giga 1970 L!

FlocStar® Giga 1970 L is the result of specific customer needs. We combined a product suitable for a variety of applications with very easy handling. For many years, we have been dealing with the various problems and we have been carrying out several trials to find out the desired characteristics of the new product.

MUNICIPAL & INDUSTRIAL WASTE WATER TREATMENT

Our product was developed for the use in Municipal and Industrial waste water treatment processes to successfully cope with the increasing hydraulic loads in the primary and secondary clarifier. In addition, it reduces the undissolved substances after the preliminary sedimentation and in the final clarification. It can be used when needed or prophylactically. The sludge properties are improved sustainably, the finest flakes are bounded very quickly and already after a few hours a better visibility depth is measurable. The GUS-values (total undissolved substances) in the effluent are improved very quickly. The sludge index returns very quickly to its normal state, thus preventing sludge flotation in the case of hydraulic overload. Our product also contains aluminum for the proactively fighting against filamentous bacteria.



CHARACTERISTICS OF FLOCSTAR® GIGA 1970 L

Due to the amphoteric nature our product can be used in media with high inorganic and high organic content. It adapts itself to the existing reaction partners and thus guarantees optimal results, because stable sludge flakes are formed extremely fast. The sludge properties are improved quickly and sustainably.

On picture 1 you can see the sewage flowing towards the secondary clarifier - the picture was taken three minutes after sampling. On the left side in the picture you can see the waste water treated with FlocStar® Giga 1970 L. The improvement of settling behavior is clearly seen. The supernatant is already very clear, the organic content is > 80%.

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Fig. 1: Wastewater from a clarifier, in the left vessel after treated with FlocStar® Giga 1970 L.

ROAD & TUNNEL CONSTRUCTION

Further applications of FlocStar® Giga 1970 L are in road and tunnel construction where it is used for sewage and wash water treatment.

ROAD CLEANING

Today flocculants are also used with modern suction vehicles for street cleaning. This application has not been existence for a long time and there is still room for improvement. Because of the compact design of the suction vehicle, usually there is only one single metering device. Therefore, either the precipitant or the flocculant can be used leading to unsatisfactory results: the supernatant is cloudy, or the flakes are greasy. In these cases our product works optimally as it is highly soluble in water and it forms a stable and well sedimentable flake within a few seconds and the recirculated water can be optimally used. The dosage continues to be via the existing system.



Fig. 2: Sludgy wastewater from a suction vehicle, left picture 3 minutes after treated with FlocStar® Giga 1970 L.

The waste water on picture 2 was taken from a suction vehicle and it contains sludge from street collectors. The picture was taken after three minutes. Left in the picture, the waste water was treated with FlocStar® Giga 1970 L. The supernatant is very clear and the sludge flake is very stable. The content of inorganic substances in this waste water is > 80%.

You are only one step away from trouble-free plant operation! We are looking forward to your contact. Our team will be happy to advise you.