

The flocculant process of polyacrylamide

The main purpose of flocculation is to coalesce fine suspended particles and colloidal particles in the sludge into coarser flocs by adding polyacrylamide. As the floc increases, the settling velocity gradually increases.

Principle of action

1) Principle of flocculation: When polyacrylamide is used for flocculation, it is related to the surface properties of the type of floc, especially the potential, viscosity, turbidity and pH of the suspension. The potential of the surface of the particle is the particle inhibition. The reason is to add a polyacrylamide having a reverse surface charge to lower the kinematic potential and agglomerate.

2) Adsorption bridge: The polyacrylamide molecular chain is fixed on the surface of different particles, and a bridge of polymers is formed between the particles, so that the particles form aggregates and settle.

3) Surface adsorption: various adsorptions of polar group particles on polyacrylamide molecules.

4) Enhancement: The polyacrylamide molecular chain and the dispersed phase are related to each other through mechanical, physical, chemical, etc., and the dispersed phase is implicated to form a network.

Mixing polyacrylamide and other water purifying agents should pay attention to the order

Polyacrylamide is a kind of water purifying agent, but many manufacturers often use it together with polyaluminum chloride in order to achieve better results when treating sewage, but it should be noted that if there is a problem in the order of use, May affect the effect of clean water.

When using the composite flocculant, you must pay attention to the order of addition and the time interval of the addition! The combination of PAC and PAM is to let the PAC first complete the neutralization charge/colloid destabilization to form fine flocs, and further increase the floc volume to facilitate sufficient precipitation. Since the reaction time of the polyaluminum chloride PAC is very short, strong mixing is required after the addition, the PAM action time is long, and the mixing attention is strong first and then weakly - the first strong is to mix evenly and then weakly to avoid destroying the flocs! Polyacrylamide is a flocculant. Polyaluminium chloride is a coagulant. Under normal circumstances, it is first added with coagulant and polyacrylamide. However, for the sake of safety, it is recommended that you confirm the order of addition through experimental results! Dosing point, dosing amount, dosing time and mixing intensity need to be determined experimentally. Remember to never use them together, otherwise it will affect the effect and increase the cost of use.

Therefore, if we want to use two water purifying agents, it must be carried out in order, otherwise it may not only affect the effect of clean water, but also increase the cost of clean water, which is not worth the loss.