

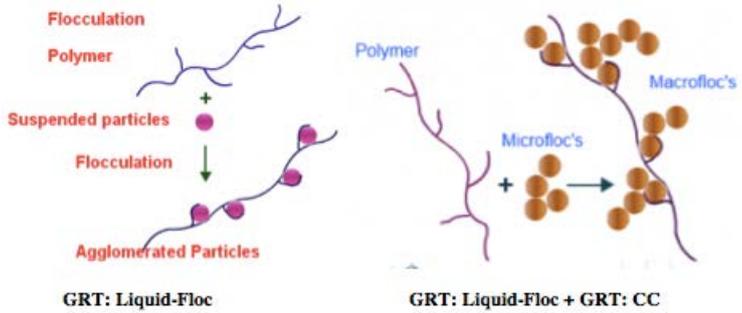


GRT:Liquid-Floc Technical Data Sheet



Flocculant Clarifier for sediment ponds and dams

GRT: Liquid-Floc is an anionic polymeric flocculant that works to clarify suspended solid particles in sediment ponds and dam water. Often these suspended solids will not settle on their own because the positively charged surfaces repel each other to continue to suspend the particles. How **GRT: Liquid-Floc** works:



In some cases (particularly if the suspended particles are negatively charged clays), it is necessary to form micro-flocs with **GRT:CC** so that the **GRT: Liquid-Floc** can work most efficiently to create particle agglomerates large enough to settle under their own weight.

Application Instructions

GRT: Liquid-Floc is a polymer emulsion and requires good mixing to dissolve and function at optimum performance. Care should be taken to ensure that dose levels are optimised through settling or jar tests and volumes of water are estimated as accurately as possible.

1. As a guide, GRT: Liquid-Floc is dosed at 2 - 10 ppm in the final water being treated.
2. To achieve the optimum dose rate, it is always recommended to conduct "jar tests" which are essentially flocculation trials to determine the best rate.
3. Take 1ml of GRT: Liquid Floc and dissolve into 1L water.
4. Take 100 ml of test water in a jar and for every 0.1ml of the above stock solution you add equals 1 ppm. Hence 1 ml = 10 ppm.
5. Start the jar test at 1 ml of stock to 100ml test solution.
6. SLOWLY invert jar/measuring cylinder upside down, 3 times ONLY.
7. Watch for flocculation rate and clarity.
8. If it settles quickly (<60 secs) but leaves cloudiness behind, reduce stock solution rate in 0.2ml increments until it settles over, say 3 mins and pulls the cloudiness out to desired spec for water discharge.
9. If none of these dose rates successfully clarifies the water, a combination of GRT: CC (Coagulant Clarifier) prior to the addition of GRT: Liquid-Floc may be necessary. (Also determined during jar tests as required).

Once the optimum dose rate is determined, the practical application of applying the correct volume of **GRT: Liquid-Floc** will be determined by the equipment the contractor has available.

Importantly, all flocculants need mixing in the water body to successfully floc the fines. Making up a 0.1% solution in a water cart by adding whilst the water cart is filling then injecting this solution into a recirculating pump in the water body or spraying across the water surface.

- Best dissolved by direct injection or suction into a circulating stream of water. The body of water should then be re-circulated using an appropriately sized pump to turn the water over at least once in 24 hours.
- Dose rate should be between 2 - 10 ppm using 10L / 1 million litres of water as a starting point. Higher concentrations will settle faster with less clarity, whilst lower concentrations will settle more slowly with better clarity.
- Clarity and speed of settling can both be improved with a combination of GRT: CC and GRT: Liquid-Floc.

Handling & Storage:

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke. Take precautionary measures against static discharges. Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

KEY BENEFITS

- **Clarifies murky water fast**
- **Does not alter pH** of the water, unlike PAC or Alum.
- **Easy to handle** as liquid, unlike Gypsum
- **Super concentrated** - 2-10L treats 1 million L water (Gypsum may require 500kg or more)
- **Readily dissolves** in water
- **Can be used in conjunction with GRT: CC** for faster settling with higher clarity.



Quality Assured

GRT's quality management system is certified to ISO 9001 standards, and our products are approved and used by Industry leading companies, worldwide.

