

# APF All Poly Flocc

For the best coagulation and flocculation



APF private and APF public: for private and public swimmingpools

## What is APF?

APF is a multi-spectrum coagulant and flocculant that can remove pollutants from solution and flocculate fine suspended solids, such as skin cells and bacteria, into large particles that are easily removed by AFM® (Activated Filter Media).

No single flocculant or coagulant can remove everything from the water. APF is a precise combination of 6 different electrolytes and polyelectrolytes to cover the widest possible range. Dissolved constituents of water make up 80 % of the oxidation demand and suspended solids around 20 %. Everything that is filtered out does not need to be oxidized. When the correct flocculation is used in combination with AFM®, chlorine consumption and the production of unwanted chlorine by-products are reduced by up to 80 %.



Example of a flocculation process



## Your benefits at a glance:

- ✓ **For a safe and healthy pool experience**  
 APF is required to remove bacteria, and parasites such as Cryptosporidium and Giardia.
- ✓ **Economic and environmental**  
 Improved filtration reduces chlorine demand by up to 80 %. It also means there will be fewer disinfection by-products formed. Operating costs will be lower and there will be less of an impact on the environment.
- ✓ **For chlorine-free swimming in private pools**  
 APF is important for chlorine-free water treatment of private swimming pools in combination with AFM® filtration.



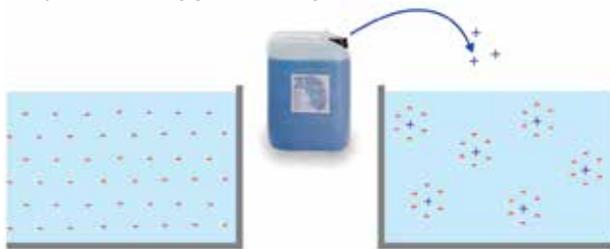
## Treat yourself and your family to the best

### What is coagulation and flocculation?

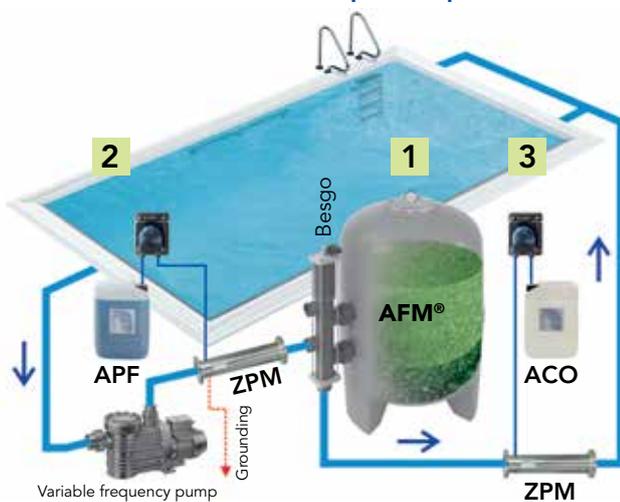
**Coagulation;** is the process of dragging chemicals out of solution to form a colloidal suspension of small particles. In order to make coagulation work, APF must be mixed instantly and aggressively with the water, this is why we designed the ZPM. If a ZPM is not used, the coagulation stage is missed and APF jumps to flocculation.

**Flocculation;** is the process of bringing the colloidal suspensions of small particles (skin cells, bacteria and parasites) together to form larger particles or floc that can be easily removed by AFM®.

APF imparts a positive charge to the particles that are now attracted to the negative charge surface of AFM®. Flocculation takes several minutes and the particles are very fragile, so the water must not be subjected to aggressive agitation.



### DAISY filter circulation for private pools



- 1 Filtration with **AFM®**
- 2 Coagulation and flocculation with **APF** and **ZPM**
- 3 Catalytic oxidation with **ACO** and **ZPM**

### What performance can you get using APF?

AFM® filter media provides nominal filtration down to 5 micron (at 8 gpm/ft<sup>2</sup> filtration velocity). When APF is used, nominal filtration of 0.1 micron is reached, so chlorine resistant parasites such as Cryptosporidium and Giardia are removed from the pool water. APF contains NoPhos to remove phosphate from the water. If there is no dissolved phosphate, then bacteria and algae cannot grow. APF is the most efficient and only multi spectrum coagulant and flocculant available to the pool industry. The improved filtration performance not only makes pools safer and healthier, it can reduce chlorine consumption by up to 80 % and help protect our environment.

### How to use APF?

APF should be pumped into the water at a constant very slow flow rate. 1 fl.oz. of APF is injected per 15,000 gal of water circulated through the filters. Only peristaltic pumps such as the Dryden Aqua flocculation pump should be used. For best results, APF should be injected directly into a Dryden Aqua ZPM static mixer, located between the pumps and the AFM® filters. The pH should be neutral, alkalinity should be greater 30 ppm.



### Who is Dryden Aqua?

We are a marine biological company specializing in water quality and innovative, sustainable treatment technologies. Our unique knowledge combination and detailed understanding of the biological as well as physio-chemical reactions has enabled us to develop a highly innovative range of products for aquaria and swimming pools. Therefore we became leader in water treatment for public and private swimming pools.

Our mission is: crystal clear and healthy water without any smell of chlorine. Today more than 100'000 pools worldwide using our system.