

## Making Better Plaster Every Time

### **Acti-Plex® Multi-functional Admixture**

Acti-Plex® (AP) multi-functional admixture provides performance benefits throughout the entire plastering job -- from start to finish – from the mixer to the acid wash to improving cured properties. This document describes the proper methods of using AP and outlines the performance benefits to observe in each step of a pool plastering job.

#### **Critical factors in using Acti-Plex in pool plasters:**

1. **Dosage Rate** – A minimum of 0.1% of total dry weight of the batch is needed. Best not to exceed 0.15%; at 0.2% the plaster may become slightly sticky but will not harm physical or color properties. For a 1,000 lbs batch a 0.1% dosage = one full 4-cup kitchen measuring cup. For convenience, the ORANGE DE CUP may be used (only fill to 60%).

**Do NOT adjust water.** Plaster may appear thicker yet will pump and trowel more easily.

2. **Mix Time** – It is imperative that AP gets at least 2½ minutes of mixing in each batch. **More time is better.** Since many batches are dumped as soon as the last bag is added, be sure to **add AP early** – right after the first 2 bags of cement are emptied into the mixer. The cement gives the mix some “body” that will help keep the AP from falling right to the bottom. AP disperses easily in water, but it is essential that it gets dispersed across all particles. The cement and aggregate provide the shear necessary for this to happen. If the plaster is not pumped, mix for 3 minutes **after** all cement/aggregate is added.

#### **Report Card: Benefits of Acti-Plex admixture at each stage of the process**

The following benefits were proven in numerous trials by different companies in different states. **For each numbered benefit listed below, please CIRCLE those in which you had a positive experience and X-OUT those that were a negative experience. If the benefit is not noticed then do not mark it. Return this card to your company President.**

#### A) **Mixing**

1. **Easy to use** -- The dosage is small and easy to use. The product is low dusting with no empty bags to dispose. It's clean and neat with its re-sealable pail.
2. **Everything else mixes better** -- AP helps disperse all materials so the mix is more uniform and the blades stay clean. The mixture flows easily out of the bin without any undispersed sand, cement or additives.
3. **Cleanup is easy** -- At the end of the job the clean-up of the mixer and pump is much easier with Acti-Plex.

#### B) **Pumping/Spraying**

1. **Easy to pump** – With AP in the mix there is little to no surging in the hose and if the pump shuts down it is easy to restart the flow.
2. **Good adhesion and low slumping** – The spray is fluid and sticks to the walls very, very well.

### C) **Plastering**

1. **Easy to Plaster** – The plaster is smooth & creamy, yet hangs on the wall very well with no sag.
2. **Excellent Vertical Hold** – It doesn't roll out or slump from the pocket under the tile.
3. **Extended Workability** – AP extends the workability while the plaster is curing. Eventhough it starts to feel firm, you can still touch up spots with causing tears or trowel burn.
4. **Tile Work** – Plaster doesn't roll out or slump from the pocket under the tile. AP allows a "***once and done***" feature that saves time and money. Plaster with AP cleans off the tile more easily. Inlay tiles hold in place better and clean up easier.
5. **Bar Stools** – Acti-Plex provides the necessary sag control and workability to get good results.
6. **Reduced Bubbles** – Little to no bubbles are formed and those that do are easily worked out (the extended workability of AP allows the "skin" to release the water when re-troweled).
7. **Uniform Curing** – AP has no chemical interaction with plaster so it neither accelerates nor retards the cure, but does aid in a more uniform rate of cure.
8. **Color Uniformity / Mottling Reduction** – AP helps disperse and keeps dispersed all particles, including pigments and dyes. This creates a more uniform, higher integrity composite that is more resistant to variations from many of the elements that cause mottling and discoloration. AP generates more uniform, smaller pore structures so water evaporation is uniform; hence curing is uniform (but not slower or faster). The result is more uniform color development and reduced mottling.
9. **Shrink Cracking** – AP helps reduce shrinkage by making a more uniform composite and denser plaster.

- D) **Exposure** – This is a critical step for pebble finishes, yet there are two common problems. The plaster doesn't wash off enough causing the pebble finish to be poorly exposed, or too much of the paste washes off and there's not enough to hold the pebbles ("wash out"). Applicators may err on the former – too strong a paste – and hope the acid wash improves the exposure. Repairs to washouts often end in poorly looking patches.

#### **AP Benefit:**

The exposure is nearly flawless. AP creates a "tight" pebble/paste matrix...as we show with our thin section photomicrographs. The paste washes off easily and the plaster holds the pebbles tight.

### E) **Acid Wash**

1. **Very little residual paste** because of the easy exposure the day before.
2. **Easily washed off.** Most of the residual paste comes off easily with the first pass of diluted acid. This can save time and money (acid).
  - a. The reduction in acid may provide good cost savings.
  - b. Typical tough spots, like under lights and around fixtures, which are normally not "exposed" well, may take a simple second wash.
  - c. No spots are too tough that brushing is required.
3. **Color Uniformity** is very pronounced after acid washing due to the improved dispersion of all components, especially the pigments, and due to more complete paste removal. The color is uniform from the bottom of the pool to side walls.....an important feature that most homeowners notice or expect.