



Color Maintenance



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LIQUID COLOR MAINTENANCE
VERSION 1.00

LIQUID COLOR MAINTENANCE

Solomon Colors ColorFlo[®] liquid pigments provide the most consistently accurate color in the world. Because you get a higher percent of solids for liquid pigments, you will use less product to attain better quality color at a lower end cost. ColorFlo[®] mixes rapidly to produce uniform and consistent color and stays in suspension to achieve full color development in the mix. Solomon ColorFlo[®] liquid color used with the Color Select[®] PC Liquid Dispensing System eliminates human error, downtime and wasted pigment to achieve reliable consistent color batch after batch. To ensure that your color is in perfect shape now and in the future, there are some simple color maintenance procedures that need to be followed.

LIQUID COLOR

Solomon ColorFlo[®] liquid is made up of iron oxides, water, and chemicals for dispersion and long-term suspension. For our high solids of iron oxides to stay in suspension our liquid colors are designed to have a higher viscosity in storage. With a little agitation our liquid colors will go back to an easily flowing state. The Air Wands in our T-400 totes will keep the liquid color agitated.

SOLOMON ColorFlo[®] LIQUID HAS A ONE YEAR WARRANTY FROM THE TIME THE LIQUID COLOR IS RECEIVED

Solomon ColorFlo[®] liquid is a high solids liquid that is designed to stay in suspension over a long period of time. Solomon Colors warrants Liquid Color for one year from receipt of product by customer. Solomon Colors cannot be responsible for ColorFlo[®] Liquid color that has been out of our control for longer than that period. Such product may still be used with confidence but should be inspected and may need to be agitated before use.

ONLY ORDER WHAT YOU NEED

- Avoid “out of warranty” ColorFlo[®] liquid on hand by only ordering product when it’s needed.
- Stay on top of inventory and the usage reports to have a better understanding for improving ordering practices. **Some primary colors are used faster than others.**
- **If extra totes are necessary, make sure to always use the oldest tote first. (ROTATE INVENTORY)**

TOTES

Solomon ColorFlo[®] liquid is delivered in T-330 cone bottom totes containing 4000 pounds of product. The on-site (Stationary) totes are T-400s. The T-400 stationary totes have a larger capacity than the T-330 refill totes so it’s not necessary to completely empty the stationary totes before refilling.

- **Do not fill above the max fill line on the top bar of the T-400 tote.**
- **Do not refill unless product is at or below the refill line.**
- **Agitation may be used to increase product flow from the T-330 refill tote.**
- **The totes should be inspected regularly to check for damage and confirm the inventory.**
- **Contact Solomon Colors when empty totes are ready to be picked up.**

KEEP FOREIGN MATERIAL OUT OF TOTES

- When refilling the T-400 totes make sure that no foreign material falls into the totes during or after transfer. Even a small rock can cause a plug in the line.
- When you are finished refilling a tote make sure the lid is properly sealed on the tote.
- **Leaving the lids unsealed will allow foreign material to fall into totes and can allow the color to dry out.**
- Keep totes away from belts as to avoid rocks falling into the color.
- Keep totes in a safe place away from traffic, “If they can be hit they will”.
- It is the responsibility of the customer to store the ColorFlo® liquid in a temperature controlled environment.

EXTREME HIGH AND LOW TEMPERATURES WILL AFFECT LIQUID COLOR

- **DO NOT LET COLOR FREEZE**
If the plant is located in a climate with freezing conditions, the totes, pumps, color lines and weight chamber must be protected. Leaving a tote outside in freezing weather will eventually ruin liquid color. Temperature will affect the flow characteristics of the liquid pigment. ColorFlo® liquid is thicker and harder to pump in cool or cold weather. Always recycle on these mornings to warm and thin the pigment. It is the responsibility of the customer to heat tape the product lines and insulate the color.
- **KEEPING TOTES IN DIRECT SUNLIGHT MAY CAUSE THE COLOR TO DRY OUT**
If liquid color is stored outside, try to keep the totes out of direct sunlight. Excessive heat will lead to evaporation. Using a simple tarp as shade can help keep the color from drying out due to evaporation.

AIR WANDS

Air wands are used to keep the ColorFlo[®] liquid agitated so that the color can easily flow from the pump to the weight chamber. Air wands are designed to only blow a small burst of air every four seconds for color agitation. Air Wands are on a timer and are set to go off each morning at 7:00am for 10-20 minutes and at 2:00pm for 10-20 minutes.



CAUTION!

IF THE AIR WANDS BLOW CONTINUOUSLY OVER A LONG PERIOD OF TIME IT MAY CAUSE THE LIQUID COLOR TO DRY OUT.

COLOR SPILLS

- Do not use water to clean up a color spill; water will only enlarge the spill.
- Let color dry or cover the spill with sand, kitty litter, or sawdust.
- Once the color is absorbed, scoop the product up with a shovel.
- You can discard the waste in a dumpster.

DON'T LET COLOR SIT IN PRODUCT LINES FOR MORE THAN FOUR WEEKS

- Moving product through the product lines will keep the ColorFlo[®] liquid color agitated and reduce the chances of line plugs.
- **If any ColorFlo[®] liquid has not been used in at least four weeks you should perform a small color load.**

SMALL COLOR LOAD

1. Run 4 pounds of each color into the weight chamber to put fresh pigment into the pigment lines.
2. Rinse and dump the weigh chamber.
3. Discharge the wash water to a truck, or holding tank for disposal.

Error! Bookmark not defined.**Cleaning the System**

Regular cleaning is a sound preventative maintenance practice and helps to ensure your **ColorSelect™ Pro** system will continue to provide reliable service.

Solomon Colors™ recommends cleaning your **ColorSelect™ Pro** system periodically every (1-2 years).

To clean the system –

1. Reverse the pump and run the liquid pigment back into its tote.
2. Close the main tote valve.
3. Disconnect suction line from the tote.
4. Connect the suction side of the pump to a water source.
5. Pump water forward through the pigment line into the weigh chamber.
6. Discharge the wash water to a truck or empty Solomon tote for disposal.

NOTE



Cleaning the system may also be accomplished by following the **SYSTEM SHUTDOWN** procedures.

Very little water is required for an adequate rinsing. Water may remain colored. Unless freezing conditions are expected, it is best to leave water in the lines until the next production run. **This keeps any remaining pigment in the lines from hardening and is easily removed when the system is primed.**

When production is resumed –

1. Reconnect the suction lines to the totes and suction side of the pump.
2. Open main tote valve.
3. Prime the system by operating each pump in manual to add until scale reading increases by ~ 6# for each color.
2. Batch Solomon by number, 999 and dump the product into an empty Solomon tote for disposal.

The system is now ready to resume production.



Caution!

- Never leave the pigment lines open to the air without cleaning.
- Do not run the totes empty without adding pigment or water to fill the lines while waiting for replenishment.
- Never leave the lids or plugs off the totes.

PROCEDURE FOR CLEANING OUT A T-400 BASE TOTE

Do not dump ColorFlo® liquid into your T-400 base tote if you plan on cleaning the tote out. Waiting until the color is at the cone to clean out the tote will decrease the waste and the time needed.

- Run product line from the pump to an empty tote and pump out the color.
- Pump out the liquid color into an empty T-330 tote of the same color.

NOTE



THE T-330 REFILL TOTES DO NOT HOLD AS MUCH AS THE T-400 BASE TOTES. MORE THAN ONE T-330 MAY BE NEEDED TO PUMP OUT THE COLOR

- Now start pumping into another tote designated for rinse water.
- While pumping use a pressure washer, starting from the middle of the tote and work outward to remove any sediment down the suction line.
- Dump fresh color back into the tote when the T-400 is clean.

SYSTEM SHUTDOWN

For Long Term or Winter Storage

If the color system will not be used for more than a month please follow the **System Shutdown procedures** below. Fully shutting down a system will help avoid problems. **Four months is the longest we recommend for fully shutting down a system.** A Solomon Colors technician should be called to check the ColorFlo[®] liquid if the system has not been used for more than 4 months.

1. Run a “999” load by batching Solomon by number.

GO TO SOLOMON BY NUMBER AND PICK COLOR 999

2. Dump this load. This rinses the weigh chamber.
3. Add more water to chamber, (10 TO 20 LBS) and reverse pump (IN MEDIUM SPEED) for approximately 1 min after scale goes to FOR “0”. Start with 920. When complete, close the main tote valve before adding 10 to 20 more LBS of water and proceeding to next pigment (417). Repeat with the rest of the pigments.

NOTE



IT MAY TAKE UP TO ONE MINUTE BEFORE YOU WILL SEE SCALE MOVEMENT, IF AFTER ONE MINUTE IT DOES NOT START TO DECREASE, STOP AND RUN ABOUT 2 LBS OF COLOR INTO THE CHAMBER AND TRY AGAIN.

If the intent is for cleaning purposes only, please skip down to “WHEN PRODUCTION IS RESUMED” at the bottom of the next page.

4. Shut off water to the weigh chamber and drain main water line at the lowest point possible. If there is a water filter remove bowl and empty.
5. Run a “999” Load by batching Solomon by number.

GO TO SOLOMON BY NUMBER AND PICK COLOR 999

6. Dump this load. This empties the flush line.
7. Put in a dry filter and replace the bowl.
8. Recycle ColorFlo® liquid weekly during shutdown.

SHUT DOWN THE COMPUTER (LEAVE THE PUMP PANEL POWERED FOR AIR WANDS.)

NOTE



FOR THE AIR WANDS TO WORK, AIR MUST BE LEFT ON AT THE PUMP PANEL

When production is resumed –

1. Pump the pigment lines clear of water into the weigh chamber.
2. Rinse and dump the weigh chamber.
3. Discharge the wash water to a truck or empty Solomon tote for disposal.
4. Recycle the pigment.
5. Resume production.

LINE PLUGS

The goal in color maintenance is to prevent color plugs. In the case of a line plug please refer to the Line Plug Flow Chart in the **ColorSelect™ TROUBLE SHOOTING FLOWCHART MANUAL**. Cleaning out or replacing the product lines or the T-400 base tote may be required to fix the problem.