



J.M. FRY INKS

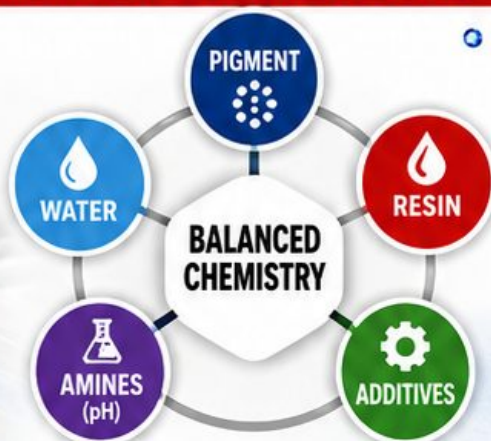


A FAMILY COMPANY

WATER-BASED INK CHEMISTRY DRIVES PRINT PERFORMANCE

BALANCE THE CHEMISTRY. CONTROL THE COLOR.

Water-based ink performance depends on the balance of resin, pigment, water, amines, additives, viscosity, and pH. When the chemistry drifts, color strength, transfer, drying, adhesion, and print consistency can all change.



1 WHY CHEMISTRY MATTERS

- Affects color strength and shade
- Impacts viscosity and flow
- Controls drying speed
- Influences adhesion and rub resistance
- Helps maintain print consistency
- Reduces waste, rework, and press adjustments

2 KEY PARTS OF WATER-BASED INK

- PIGMENT** Provides color
- RESIN / BINDER** Helps the ink form a film and bond to the substrate
- WATER** Main carrier
- AMINES / pH CONTROL** Keep the resin in balance and maintain solubility
- ADDITIVES** Support defoaming, slip, wetting, and performance

3 WHAT HAPPENS WHEN CHEMISTRY DRIFTS

- Low pH can reduce stability and affect transfer
- High viscosity can cause poor flow and dirty print
- Low viscosity can weaken color strength
- Poor balance can lead to slow drying or poor rub resistance
- Ink instability can cause inconsistency through the run

4 WATER-BASED INK CONTROL WORKFLOW

1 CHECK pH



2 CHECK VISCOSITY



3 MIX THOROUGHLY



4 MONITOR COLOR AND DRYING



5 SAMPLE OFTEN



5 WHAT GOOD CONTROL LOOKS LIKE

- Stable pH in target range
- Consistent viscosity
- Smooth ink transfer
- Strong, clean color
- Reliable drying and adhesion
- Better repeatability from start to finish



IMPORTANT

Water-based ink chemistry is connected. A change in pH, viscosity, dilution, or additive balance can quickly affect printed color and performance.

BETTER CHEMISTRY CONTROL. BETTER COLOR. BETTER RESULTS.
CHECK. VERIFY. MONITOR. EVERY TIME.