



# MATSUI INTERNATIONAL CO. INC.

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## CHROMICOLOR® FOR TEXTILES

### **Chromicolor® AQ Ink**

#### **Binder S**

#### **Fixer F**

### **A. MATERIAL DESCRIPTION**

This system includes a water-base Chromicolor® paste and a thinning binder especially formulated for screen printing on textiles. This ink, once applied on textiles, proves to have excellent adhesion, color quality and consistent color-changing performance.

### **B. COLOR INFORMATION**

Cold color refers to the color component that changes. The hot color is a conventional water base pigment, which is revealed when the cold color (Chromicolor) changes with temperature. There are 11 standard cold colors and an unlimited number of hot colors to compliment them. The hot colors must be a lighter color than the cold color. Cold and hot colors are sold separately to be mixed in-house by the users.

In short, the Chromicolor® AQ ink is the cold color, its color disappears with the addition of heat. Alone, it performs the color-colorless change. To achieve the color-to-color changing phenomenon, a simple addition of conventional (non color change) pigment to the Chromicolor® mixture is needed.

#### Standard Colors

New Fast Yellow	Pink	Brilliant Green
Gold Orange	Magenta	Fast Black
Vermilion	Fast Blue	Green
	Turquoise Blue	Brown

### **D. USAGE INFORMATION**

<b>MIX RATIO:</b>	20	parts Chromicolor® AQ Ink
	80	parts Binder S
	3	parts Fixer F
	<u>X</u>	<u>parts Pigment or "hot color**"</u>
	103	+ X totals parts weight

- Maximum pigment, hot color, contribution of the total ink weight should not be more than 2%.
- White pigments are not compatible with Chromicolor® AQ inks: usage of white pigment should be minimized if not eliminated.
- Ratios varying from suggested mixing ratios may still achieve the desired results.
- To thicken viscosity, add water-base or acrylic thickener.
- To reduce viscosity, up to 5% Printgen MG or water may be added.
- Filter the mixed ink with 120 mesh filter prior to its application.
- Mixed ink must be used within 24 hours.
- Avoid skin contact and do not inhale fixer.

#### **APPLICATION NOTES:**

- The screens should be biased with polyester monofilament. Emulsion should be water resistant or water oil resistant. Example emulsions include ULANO TZ and 925WR.
- Chromicolor® inks tend to settle; stir ink before each application.
- For good application, squeegees should be made of soft material.
- To wash the screens, use water. If screens are clogged, use a screen degreaser (e.g.: ULANO No. 3).
- Ink coverage area is approximately 5 – 15 square inches per gram of mixed ink; the ink covers 20,000 – 60,000 square inches per gallon. This is only an approximation, as exact coverage will vary depending on specific applications.
- Steam treatment destroys Chromicolor® AQ inks; Chromicolor® AQ inks are not compatible with dyes that require steam treatment.

#### **APPLICATION PROCEDURE:**

1. Use a 60 to 120 mesh screen to print ink.
2. Air dry until it feels dry when touched lightly. (Please note that this procedure is not always necessary).

3. Cure at 130° C for 3 minutes or 320° F for 1 ½ minutes. **(DO NOT EXCEED 140° C / 284° F).**

To determine the shelf life of our Chromicolor® AQ Ink, tests were performed under different control temperatures, varying from a low refrigerator temperature to a high 104 degrees temperature. We found that high temperature can reduce the shelf life of down to 3 months. At the temperatures of 65° F to 75° the shelf life will be 6 months to a year. To prolong its shelf life, it is best to keep the Chromicolor® ink refrigerated; our tests have shown that, under refrigeration, Chromicolor® ink can last as long as three years.

#### **E. ORDER INFORMATON**

Users need to specify the following when ordering Chromicolor® AQ ink for Textiles:

- Material / Fabric to be printed.
- Cold Color.
- Hot Color – Pigment color chart available upon request. (Glow/fluorescent colors work the best).
- Temperature range for the color change (we carry Type 27 in stock; all other types have an estimated lead time of 3 months).

#### **F. PACKAGING**

Chromicolor ® AQ Ink:	4kg. 20kg. packaging
Binder S:	20kg. 200kg. packaging
Fixer F:	4kg. 20kg. packaging