



# MATSUI INTERNATIONAL CO. INC.

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CHROMICOLOR® PET GRAVURE INK BASE C-1115-2  
PET GRAVURE INK CLEAR C-0125  
PET FIXER C-0430-2

## SUMMARY:

Chromicolor® PET Gravure Ink Base C-1115-2 is solvent evaporation drying type gravure ink with temperature sensitive color-change colorant for printing onto PET.

## PRODUCTS:

Chromicolor® PET Gravure Ink Base C-1115-2 (Color Base)  
PET Gravure Ink Clear C-0125 – Clear Ink for dilution.  
PET Fixer C-0430-2. – Curing Agent

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

## COMPOSITION:

	Chromicolor® PET Gravure Ink Base C-1115-2	PET Gravure Ink Clear C-0125	PET Fixer C-0430-2
Polyester Resin	12 $\pm$ 1	33 $\pm$ 1	--
Polyisocyanate Resin	--	--	75
Aromatic Solvent	48 $\pm$ 1	17 $\pm$ 1	--
Ketone Solvent	--	50 $\pm$ 1	--
Ester Solvent	--	--	25
Chromicolor®	40	--	--

**NATURE:**

	Chromicolor® PET Gravure Ink Base C-1115-2	PET Gravure Ink Clear C-0125	PET Fixer C-0430-2
Appearance	Viscous Paste in various colors	Light Milk-White viscous paste	Colorless Transparent viscous liquid
Specific Gravity	0.96 ± 0.05	0.93 ± 0.05	1.09 ± 0.05
Viscosity (at 25°C)	30,000 ~ 100,000cps	500 ~ 1,000cps	500 ± 200cps
Flash Point	4.4 °C	4.4 °C	-4 °C

**USAGE:**

## (a) Standard Recipe for Chromicolor® PET Gravure Ink

Chromicolor® PET Gravure Ink Base C-1115-2	45
PET Gravure Ink Clear C-0125	30
PET Fixer	2
Diluting Solvent (Note 1)	25
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Note 1: MEK or mixed solvent of MEK and Toluene (1:1)  
Is recommended as Diluting Solvent.

(Viscosity at 25°C BH Model Viscometer, Approx. 90 cps, Zahn Cup No. 2  
Approx. 38 sec.)

- Chromicolor® PET Gravure Ink Base C-1115-2 tends to separate and precipitate during storage, therefore the color base should be stirred thoroughly prior to mixing with other components..

Also, it is desirable to stir the relevant compounded Ink constantly during printing.

- The above compounded Ink should be filtered with 100 mesh screen before printing

Further, Pot Life of the compounded Ink is 24 hours.

- The above compounding recipe is standard and it is possible to vary components slightly.

(b) Printing Operation:

Since the particle size and tinctorial power of Chromicolor® are rougher and weaker compared to general pigment, gravure plate with as deep screen depth as possible should be used (e.g. screen depth: 50 ~ 80 $\mu$ , the number of lines: 100 line/inch.)

When printed twice on the same place, more effective color-change can be obtained.

It is desirable to have as low speed as possible towards printing speed of Gravure.

(c) Cleaning of Screen Plate:

Aromatic solvent such as xylol, etc. or ester solvent such as butyl acetate, etc. should be used.

**NOTES:**

- (a) Chromicolor® PET Gravure Ink Base C-1115-2 should be stored in a cool and dark place below 20°C, tightly sealed and should be used up within three months. Shelf Life is three months at 15°C.
- (b) PET Gravure Ink Clear C-0125 should be stored in a cool and dark place below 40°C, tightly sealed. This product tends to increase viscosity during storage, but it can return to the original viscous paste form through stirring. Therefore it should be stirred thoroughly prior to use. Shelf Life is six months at 40°C.
- (c) PET Fixer C-0430-2 changes its quality through reacting to the contact with moisture in the air since it is a polyisocyanate product. Therefore it should be stored in a cool and dark place below 25°C, tightly sealed after use without fail. Also, contact with skin should be avoided and handle this without inhaling it. Shelf Life is six months at 25°C in the sealed condition and is one month after opened.
- (d) Chromicolor® PET Gravure Ink Base C-1115-2, PET Gravure Ink Base C-0125 and PET Fixer C-0430-2 are flammable and should be handled, avoiding flame.
- (e) During printing process, gravure screen plates and ink pans are cooled to cause condensation with moisture in the air and moisture may be mixed into Ink. When more than 2% of moisture is mixed into the compounded Ink, concentration of Chromicolor® may be decreased. Therefore, care should be

taken so that no moisture is mixed into Ink during printing process. To prevent the relevant moisture's mixing into Ink, the following methods are effective:

- Cover Ink Pans and Sub-Tanks in order to prevent the contact between Ink and air as much as possible.
- Place silica gel at the bottom of Ink Pans and Sub-Tanks so that moisture within Ink can be absorbed.
- Ink Pans should be kept warm.

(f) Chromicolor® has poor humidity and heat resistance, therefore Chromicolor® may be damaged through high pressure & high temperature steam treatment such as sterilization treatment towards coffee beverage, etc. (e.g. 125°C x 30 min. and, as a result, color-change function may be lost. Therefore, uses which require retort treatment should be avoided and uses towards beer, carbonated drink, juice, etc. which are treated under the gentle condition of warm water treatment, etc. should be carried out.

(g) Adhesion property onto can materials varies depending upon the kinds of PET film, the kinds of adhesive for lamination and difference in heat treatment conditions, etc. Therefore, Pre-Testing should be performed prior to use in order to confirm adhesion property.

(h) Once printed Chromicolor® PET film is not suitable for application to materials that will expand or contract.

#### **PACKING APPEARANCE**

Chromicolor® PET Gravure Ink Base C-1115-2	16kg./Iron Drum
PET Gravure Ink Clear C-0125	16kg./Iron Drum
PET Fixer C-0430-2	1kg/Can