

## English Version (Japanese Translation)

screen ink

UV-curable ink 'Raycure'

Common color

general printing   Functionality   abundant   Braille | UV-curable type

# Raycure GA 4100 Series

This is a glossy UV ink.

The hardened film has high hardness and excellent physical properties such as chemical resistance.

## Product Features

- It has excellent curing and adhesion.
- Excellent on-machine stability and print reproducibility.
- The ink film has a strong gloss and excellent transparency.
- The film has high hardness, offering excellent chemical resistance and scratch resistance.



## Features

print reproducibility

Onboard stability

hardness

high hardness

Adhesion

transparency

## Endurance

Chemical resistance

Scratch resistance

## Recommended Printed Materials

### Material

Rigid Vinyl [PVC]

PVC Sticker

Acrylic [PMMA]

Acrylonitrile Butadienestyrene [ABS]

Acrylonitrile Styrene [AS]

Polycarbonate [PC]

Treated PET Film

## Finish, Texture, and Visual Effects

### finish

gross

## Color & Grade

### Standard Colors (Standard Colors)

|                                                                                                   |                                                                                            |                                                                                               |                                                                                                               |                                                                                             |                                                                                                 |                                                                                                   |                                                                                              |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|  00 Medium         |  01 White |  06 Cinnabar |  07 High-concentration white |  08 Red  |  12 Yellow   |  13 Qing Huang |                                                                                              |
|  14 Red and Yellow |  16 Pink  |  18 Red      |  25 Purple                   |  28 Orange |  45 Dark Blue |  46 Blue       |  75 Green |
|  85 Ultramarine    |  90 Black |                                                                                               |                                                                                                               |                                                                                             |                                                                                                 |                                                                                                   |                                                                                              |

## Surface Decoration Clear

### Matte Clear

For pseudo-etching and non-glare printing.  
Strong thixotropic properties, excellent reproducibility of the gauze eyes.

### HFT Matte Clear

For flat matte finishes.  
The matte finish is close to that of solvent-based inks.

### UB-1 Matte Clear

Fine, grainy semi-gloss finish. (High density)

### UB-2 Matte Clear

Fine, grainy semi-gloss finish. (Low density)

### Clear Transparent Matte

Matte clear with excellent transparency.  
For pseudo-etching and non-glare printing.  
High viscosity.

### Medium

Base for adjusting ink color density and mixing special colorants such as gold and silver powders.  
Can also be used for overcoats and undercoats.  
For gloss-type inks.

### Braille C Medium

For braille printing.  
For materials with hard and thick ink coatings

### D-medium for Braille

For braille printing.  
Ink coatings are slightly soft, suitable for thin materials

### transparent medium

Medium with excellent transparency.  
Non-silicone type.

## RL-A Thick Medium

For raising printing.

Suitable for materials with hard and thick ink coatings.

## RL-B Thick Medium

For raising printing.

Ink films are slightly soft, suitable for thin materials.

## DP-1 Medium

The random surface and the textured texture of the printed grain are pronounced.

Good scratch resistance.

## UF-1 Medium

A fine particle type of the DP-1.

The grain is slightly smaller, but the finish is similar to the DP-1.

## How to use

- After stirring the ink well, remove it from the container and print as is.
- If you need to lower the ink viscosity, use the 4100 reducer within 10% of the dosage.

## print edition

| mesh                      | Sol thickness      |
|---------------------------|--------------------|
| 300~350 (standard colors) | 10 $\mu$ m or less |

## Curing Method & Conditions

### UV Exposure Conditions

It varies depending on the ink color and type of substrate.

| Types of lamps    | lamp strength   | total luminous amount |
|-------------------|-----------------|-----------------------|
| Metal Halide Lamp | 120W/cm, 1 lamp | 250mJ/cm <sup>2</sup> |

Test data (environment, physical properties, weather resistance, performance, etc.)

| Conditions              |                                 |
|-------------------------|---------------------------------|
| printed matter          | Polycarbonate 0.5mm thick sheet |
| Ink                     | GA4101 White                    |
| print edition           | Polyester 300 mesh (bias)       |
| Sol thickness           | 10 μ m                          |
| Printing Film Thickness | 10 μ m                          |
| hardening conditions    | 120W、 250mJ/cm <sup>2</sup>     |

| Test Items                   | Test Method                                                     | Results              |
|------------------------------|-----------------------------------------------------------------|----------------------|
| Adhesion                     | Cross-Cut Cellotape Peeling                                     | Excellent<br>100/100 |
| resistance to seduction      | scratching with claws                                           | excellent            |
| hardness                     | Pencil hardness (damaged): 750gf                                | 2H~3H                |
| overprinting property        | Adhesion of two-color overlapping printing                      | excellent            |
| alcohol resistance           | Fabric impregnated with 99.5% ethanol, 500gf, 100 round trips   | No abnormalities     |
| Gasoline resistance          | Fabric impregnated with gasoline 500gf, 100 round trips         | No abnormalities     |
| solvent resistance           | Impregnated with ethyl acetate in cloth, 500gf, 100 round trips | No abnormalities     |
| Hydrochloric acid resistance | Soak in 10% hydrochloric acid solution for 24 hours             | No abnormalities     |
| sulfuric acid resistance     | Soak in 10% sulfuric acid solution for 24 hours                 | No abnormalities     |
| Alkali resistance            | Soak in 5% sodium hydroxide aqueous solution for 24 hours       | No abnormalities     |
| abrasion resistance          | Friction tester 500gf, 300 round trips                          | excellent            |
| weather resistance           | Xenon Weather Meter 300 Hours                                   | No abnormalities     |

- The values listed are test values and not guarantees.
- When printing with diluted ink with m... or white ink, the weather resistance decreases significantly compared to the primary colors.



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## Notes

- 4100GA is characterized by a hard cured film.  
For applications requiring flexible coatings, use 4200PF, 4700VX, 4700M, or 6100SL.
- For general precautions, please refer to the attached document "[UV ink](#)". Please refer to the detailed information in the "" section.
- For safety precautions when using the product, please refer to the product's Safety Data Sheet (SDS).
- The contents provided in this information may be changed or revised without prior notice.
- This characteristic data is based on the evaluation results conducted by our company and does not guarantee the product's characteristics during customer use.
- When using the device, please thoroughly consider the conditions based on the evaluation results of the equipment and substrate actually being used.