

English Version (Japanese Translation)

screen ink

UV-curable ink 'Raycure'

Common color

general printing | UV-curable type

Raycure SL 6100 Series

This is a semi-glossy UV ink that forms a flexible film.

With high concentration and excellent curability, it is ideal for printing on thin films and similar materials.

Product Features

- It forms a film with excellent curing properties and flexibility.
- The vacuum formability of the cured film is excellent.
- High concentration with excellent concealing power.
- It has strong adhesion and excellent compatibility with layering.
- Even for fine text printing, there is no slack, and the printing reproducibility is excellent.
- The reproducibility of half-tone ink is excellent.
- The squeegee has minimal swelling and good stability on the plate.

Features

post-processing

print reproducibility

concealment

Onboard stability

hardness

high concentration

flexibility

Adhesion

Recommended Printed Materials

Material

paper

Vinyl

Vinyl sticker

PVC Sticker

PVC Film

Polycarbonate [PC]

Treated Polyethylene Terephthalate [PET]

Treated PET Film

Amorphous Polyethylene Terephthalate [PET]

A-PET

A-PET Film

Post-processing and secondary processing

vacuum forming

Finish, Texture, and Visual Effects

finish

semi-gloss

Color & Grade

Standard Colors (Standard Colors)

 00 Medium	 01 White	 07 High-concentration white	 08 Red	 12 Yellow	 16 Pink	 25 Purple
 28 Orange	 45 Dark Blue	 46 Blue	 75 Green	 85 Ultramarine	 92 Black	

Standard Colors (Weather-Resistant Colors)

 06 Cinnabar	 13 Qing Huang	 14 Red and Yellow	 18 Red
---	---	---	--

Half-tone color (standard model)

 Yellow (yellow/blue-yellow)	 cyanide	 Black (Black)	 Magenta (Red)
---	---	---	---

Halftone Color (Matte Type Halftone - N)

 cyanide	 Black (Black)	 Magenta (Red)	 Medium
---	---	---	--

Transparent color

 cyan	 magenta	 yellow
--	---	--

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.

SB Mat (A)

This diffusion ink is ideal for diffusing LED light sources.
The thicker the film, the more diffusive it is, but the light transmission is slightly lower.

SB Mat (B)

This diffusion ink is ideal for diffusing LED light sources.
It powerfully diffuses the most diffusive and high-intensity LED light sources.

UB-1 Matte Clear

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

UB-2 Matte Clear

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

Specifications

Print area	Lotus form
70~80m ² /kg	1kg Poly Bottle

How to use

- Stir well before use and print as is.
- To reduce viscosity, use one of the following: 6100, 4200, or 4700 reducer within 10% of the additive amount.
If the amount added exceeds 10%, please add 1~3% JAR-15 curing accelerator separately.
- To increase viscosity, add about 20~30% of matte clear, JA-244, or JAR-20.
Colored inks may not cure well when they become thick films.
- If curing defects occur when using medium to produce gold or silver, please use JAR-15 curing accelerator.

print edition

Printing Methods & Formats

overprinting

mesh	Sol thickness
300~350	10 μ 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	Ultraviolet intensity	irradiation distance	Conveyor speed	total luminous amount
Metal Halide Lamp	80W/cm, 1 lamp	300mW/cm ²	10cm	10m/min	150mJ/cm ²

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

Conditions	
printed matter	0.2mm thick polycarbonate sheet
print edition	350 Polyester Mesh
Printing Film Thickness	10 μ m
hardening conditions	Lamp type: Metal halide lamp Lamp strength: 80W/cm, 1 lamp Cumulative light intensity: 150mJ/cm ² Peak UV intensity: 300 mW/cm ²

Results

Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Peeling	100/100 Passing
pencil hardness	JIS K-5400 8.4 Pencil Hardness	B~HB
flexivity	JIS K-5400 8.1 Bending Test	excellent
impact resistance	JIS K-5400 8.3 DuPont Impact Test 1/2in、 500g、 50cm	No abnormalities
overprinting property	Adhesion with 3-color overprinting	100/100 Passing
heat resistance	70° C for 240 hours	No abnormalities
moisture resistance	60° C 95% RH 240 hours	No abnormalities
cold resistance	-20° C for 240 hours	No abnormalities
water resistance	40° C warm water for 24 hours	No abnormalities
alcohol resistance	99.5% Ethanol - 50 rubbings	gloss loss
weather resistance	Sunshine Weather Meter 400 hours	No abnormalities

Weather Resistance List

Grade	color name
6	6114 Chihuang 6118 Red 6185 Gunqing
6-7	6112 Yellow 6128 Orange
7	6100 Medium 6101 White 6108 Red
7-8	6106 Golden Red 6113 Qinghuang 6116 Pink 6125 Purple
8	6145 Dark Blue 6146 Blue 6175 Green 6192 Black

- Weather resistance varies depending on the color.
- Please note that smoke or light colors perform poorly than primary colors.

Notes

- 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.