

English Version (Japanese Translation)

- screen ink
- UV-curable ink 'Raycure'
- Common color

general printing | UV-curable type

Raycure OP 4300 Series

This is a high-quality, low-cost, high-gloss UV ink suitable for printing on a wide range of materials.

Product Features

- It cures quickly and offers excellent blocking resistance when stacked flat.
- The cured coating offers excellent gloss and leveling.
- It has excellent abrasion resistance.
- It does not contain heavy metals or toxic substances such as N-vinylpyrrolidone.

Features

- bendability
- hardness
- low price
- Low toxicity
- leveling ability

Endurance

- Physical Endurance
- blocking resistance
- abrasion resistance

Recommended Printed Materials

Material

- paper
- Polycarbonate [PC]
- polyester-based
- Treated Polyethylene Terephthalate [PET]
- Treated PET Film
- olefin-based
- Treated Polyethylene [PE]
- Corona Discharge Treated PE
- Corona Discharge Treated PE Sheet
- Treated Polypropylene [PP]
- Corona Discharge Treated PP Sheet
- Frame-treated PP molded products
- Frame Treatment PE

Post-processing and secondary processing

- bending

Finish, Texture, and Visual Effects

finish

- gross

Color & Grade

Standard Colors (Standard Colors)

 00 Medium	 [Special Color] 01 White	 [Special Color] 02 Yellow	 05 Gold Red	 [Special Color] 08 Red
 [Special Color] 16 Pink	 [Special Color] 17 Red	 [Special Color] 25 Purple	 [Special Color] 28 Orange	
 [Special Color] 45 Dark Blue	 [Special Color] 46 Blue	 [Special Color] 75 Green	 [Special Color] 85 Ultramarine	
 90 Black				

Standard Colors (Weather-Resistant Colors)

 [Special Color] 13 Blue-Yellow
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Half-tone color (standard model)

 Medium	 Yellow (yellow/blue-yellow)	 cyanide	 Black (Black)	 Magenta (Red)
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Surface Decoration Clear

Raycure OP 4300 Series NOP Overcoat Clear

Ideal for overcoats on printed materials such as offsets and gravures.
It offers excellent curability, blocking resistance, and leveling properties, and is low-cost.

Raycure OP 4300 Series HG Overcoat Clear

Ideal for overcoats on printed materials such as offset and gravure.
It offers the best gloss, leveling, and adhesion.

Raycure OP 4300 Series FG-30 Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.
This is the high-viscosity type of FG-20. (Viscosity about 3 times higher)

Raycure OP 4300 Series FG-20SC Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.
This is an improved transparency version of the FG-20.

Raycure OP 4300 Series FG-20 Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.
It has the least amount of membrane yellowing.

Raycure OP 4300 Series FG-5 Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.
Improved FG-4's blocking resistance and membrane yellowing resistance.

Raycure OP 4300 Series FG-4 Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.

Raycure OP 4300 Series FG-3 Thick Clear

This ink was developed for thick overcoats of various printed materials and for Barco printing.
This is the high-viscosity type of FG-4. (Viscosity about twice as strong)

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)

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.

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.

Extender

Used to lighten the color.

Translucent.

For matte inks.

Specifications

Print area	Lotus form
70~100m ² /kg	1kg Poly Bottle

How to use

- Stir well before use and print as is.
- To reduce ink viscosity, add 4300 reducer at 10% or less.

print edition

Types of Editions	mesh	Sol thickness
Polyester Edition	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	irradiation distance	Conveyor speed	total luminous amount
Metal Halide Lamp	120W/cm, 1 lamp	10cm	20m/min	120mJ/cm ²

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

Conditions	
printed matter	coated paper
print edition	Polyester Plate 350 Mesh
Sol thickness	10 μ m
Printing Film Thickness	10 μ m
hardening conditions	Lamp type: Metal halide lamp Lamp strength: 120 W/cm, 1 lamp Conveyor speed: 20m/min Cumulative light output: 120mJ/cm ²

Results		
Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Release Test	100/100
hardness	JIS K-5400 8.4 Pencil Hardness	H~2H
flexivity	JIS K-5400 8.1 Bending Test	No abnormalities
overprinting property	Adhesion with 3-color overprinting	No peeling
abrasion resistance	Academic Swing Test Load 500g	Passed 300 times
weather resistance	Sunshine Weather Meter (400 hours is considered one year)	White, Red, and Yellow: No abnormalities in 1 year Indigo & Black: No abnormalities in 2 years

Weather Resistance List

Grade	color name
5	4302 Yellow 4303 Qing Huang 4317 Red
5-6	4308 Red
6	4301 White 4305 Golden Red 4328 Orange
7	4300 Medium
7-8	4316 Pink 4325 Purple 4387 Gunqing
8	4345 Dark Blue 4346 Blue 4375 Green 4390 Black

- When ink is diluted with medium or white ink for printing, its weather resistance drops significantly compared to the primary colors.
- Please note that colored colors (blue-yellow, yellow, orange, gold-red, red, red, purple, indigo, deep indigo, green, pink, ultramarine) are made-to-order.

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.