

English Version (Japanese Translation)

screen ink

UV-curable ink 'Raycure'

Common color

general printing | UV-curable type

Raycure PES-B

This UV ink was developed for printing on processed PET bottles.
The surface finish is excellent.

Product Features

- It excels in compatibility with overprinting and chemical resistance to the coating.
- It is glossy with excellent surface abrasion resistance.

Endurance

Chemical resistance

Physical Endurance

Recommended Printed Materials

Material

polyester-based

Treated Polyethylene Terephthalate [PET]

Processed PET bottles

Amorphous Polyethylene Terephthalate [PET]

A-PET

PET-G

Final product

Polybottle

Finish, Texture, and Visual Effects

finish

gross

Color & Grade

Standard Colors (Standard Colors)

00 Medium

01 White

03 Green and Yellow

05 Gold Red

07 High-concentration white

08 Red

16 Pink

17 Red

25 Purple

28 Orange

45 Dark Blue

46 Blue

75 Green

90 Black

Standard Colors (Weather-Resistant Colors)

14 Red and Yellow

Specifications

Print area

70~90m²/kg

Lotus form

1kg Poly Bottle

How to use

- Please treat the substrate so that the wet index is $600\mu\text{N/cm}$ ($=60\text{dyn/cm}$) or higher.
- If the surface wetting index of the material is low, the ink's adhesion may not be sufficient.
In such cases, please perform surface treatment again.
- When lowering ink viscosity, use a PES-B reducer with an amount within 10%.
- If you want to lower the ink concentration, use an extender.
There is no limit to the amount added.
- To improve adhesion, use JAR-18 at 1~3% of the dosage.
- If curing is insufficient, use JAR-8 or JAR-15.
- When additives are used, the ink becomes two-component, resulting in a pot-life effect. (Usually usable for 8~12 hours)
- If additives are used, be careful to ensure no additives remain around the container or on the spatula.
- Printing irregularities may occur immediately after adding, so please leave it for about 20 minutes before printing.
- Please check the adhesion before use.

print edition

Printing Methods & Formats

overprinting

mesh	Sol thickness
300	$10\mu\text{m}$ 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	10m/min	250mJ/cm^2

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

Conditions	
printed matter	Processed PET bottles (Wetting index: $650\mu\text{N/cm}$ ($=65\text{dyn/cm}$))
print edition	300 Polyester Mesh
hardening conditions	Lamp type: Metal halide lamp Lamp strength: 120W/cm, 1 lamp Conveyor speed: 10m/min Cumulative light output: 250mJ/cm^2

Results

Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Release Test	100/100 Passing
overprinting property	Adhesion with 3-color overprinting	100/100 Passing
alcohol resistance	Made with 99.5% ethanol, soaked for 24 hours	No abnormalities
Water Temperature Resistance	Soaked for 24 hours using 40° C warm water	No abnormalities
weather resistance	Sunshine Weather Meter 500 hours	No abnormalities

Weather Resistance List

Grade	color name
6	13 Qing Huang 14 Red and Yellow 18 Red 85 Ultramarine
6-7	28 Orange
7	00 Medium 01 White 08 Red
7-8	06 Cinnabar 16 Pink 25 Purple
8	45 Dark Blue 46 Blue 75 Green 90 Black

- When ink is diluted with medium or white ink for printing, its weather resistance drops significantly compared to the primary colors.
- Only some colors are in stock.
Please note that colors other than these are made-to-order products.

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.