

English Version (Japanese Translation)	Post-Order Production	screen ink
		UV-curable ink 'Raycure'
		Common color

general printing | UV-curable type

Raycure LPEP

This is a glossy UV ink for frame-treated PE and PP bottles.

UV-LED lamps also have excellent curability, making them ideal for high-speed printing.

Compatible with all colors EN71-3.

Product Features

- Its excellent curing properties allow for high-speed printing.
- It has a high surface hardness, making it less prone to scratches.
- It has excellent print reproducibility for fine text.
- Curing with regular UV lamps is also possible.
- Does not contain heavy metals or harmful substances such as N-vinylpyrrolidone.
- All colors comply with EN71-3 (European Toy Safety Standard).

Features

Safety	print reproducibility	High-speed printability	Adhesion	Low toxicity
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Endurance

water resistance	Physical Endurance
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Recommended Printed Materials

Material

olefin-based	Treated Polyethylene [PE]	Processed PE bottles	Treated Polypropylene [PP]
Processed PP Bottles			

Final product

Polybottle

Color & Grade

Standard Colors (Standard Colors)

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

Specifications

Print area

70~90m²/kg

How to use

- Stir well before use and print as is.
 - When reducing viscosity, use PEP-Z(HV) reducer within 10% of the added amount.
 - If you want to lower the ink concentration, use 00 meso.
 - To improve adhesion, use JAR-18 within 1~3% of the added amount.
- When using JAR-18, the ink becomes two-component, causing pot life. (Usually usable for 8~12 hours)

print edition

Printing Methods & Formats

screen printing

Types of Editions	mesh	Sol thickness
Polyester Edition	350 mesh or more	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	total luminous amount
Metal Halide Lamp	120W/cm, 1 lamp	800 mW/cm ² (peak strength)	150mJ/cm ²

LED Illumination Conditions

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

Types of lamps	Ultraviolet intensity	irradiation distance	Conveyor speed	total luminous amount
UV-LED 385nm	3,300 mW/cm ² (peak strength)	10mm	13.0m/min.	500mJ/cm ²

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

Conditions	
printed matter	HDPE (Provides approximately 720mN/m wetting resistance through frame processing)
print edition	Polyester screen 350 mesh
hardening conditions	Lamp type: UV-LED 385nm Total light intensity: 500 mJ/cm ² Peak UV intensity: 3,300 mW/cm ²

Results

Test Items	Test Method	Results
Adhesion	Cross-cut tape peel test	100/100 Passing
overprinting property	Adhesion with 3-color overprinting	qualified
alcohol resistance	99.5% Ethanol Usage Peel test after 24 hours of immersion	100/100 Passing
Water Temperature Resistance	Use 40° C warm water Peel test after 24 hours of immersion	100/100 Passing

Notes

- If additives are used, be careful to stir around the container or on the spatula to ensure no additives remain.
- Printing irregularities may occur immediately after additive addition, so leave it to sit for about 10 minutes before printing.
- Compared to curing with metal halide lamps, UV-LED lamps have slightly lower curing (degree of polymerization) There may be cases where there may be.
- For surface treatment of the base material, please refer to the attached document "Surface Treatment of Polyolefin Material."
- Adhesion may vary depending on the base material manufacturer and grade.
Be sure to conduct tests in advance to check adhesion.
- 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.