

English Version (Japanese Translation)

screen ink

UV-curable ink 'Raycure'

Common color

general printing | UV-curable type

Raycure LP 4700 Series

This is a high-quality, low-cost glossy UV ink designed for printing on all types of vinyl materials. It forms a flexible film and offers excellent curing properties.

Product Features

- High-quality, low-cost glossy UV ink.
- It forms a highly flexible film.
- It is suitable for overprinting and post-processing.
- Does not contain heavy metals or harmful substances such as N-vinylpyrrolidone.
- All colors comply with EN71-3 (European Toy Safety Standard).

Features

post-processing

hardness

flexibility

low price

Low toxicity

Recommended Printed Materials

Material

Vinyl

Rigid Vinyl [PVC]

Rigid PVC Board

Vinyl sticker

PVC Sticker

PVC molded products

General plastic

Acrylonitrile Butadienestyrene [ABS]

polyester-based

Treated Polyethylene Terephthalate [PET]

Treated PET Film

olefin-based

Frame Treatment PE

Frame-treated PE tubes

Finish, Texture, and Visual Effects

finish

gross

Color & Grade

Standard Colors (Standard Colors)

01 White

02 Yellow

03 Green and Yellow

07 High-concentration white

08 Red

16 Pink

25 Purple

28 Orange

45 Dark Blue

46 Blue

75 Green

85 Ultramarine

90 Black

Standard Colors (Weather-Resistant Colors)

06 Cinnabar

18 Red

Half-tone color (standard model)

Medium

Yellow (yellow/blue-yellow)

cyanide

Black (Black)

Magenta (Red)

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.

Overcoat Clear

Improves physical properties such as gloss impartation and weather resistance.

Clear Transparent Overcoat

Clear overcoat with excellent transparency.

Improves physical properties such as gloss impartation and weather resistance.

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.

transparent medium

Medium with excellent transparency.

Non-silicone type.

Thick Medium

For raising printing.

RL-N Thick Medium

For thick film printing, non-silicone type.

Transparency, softness, and high viscosity.

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

70~90m²/kg

How to use

- Stir well before use and print as is.
- To reduce viscosity, use a 4700LP reducer within 10% of the added amount.
- To increase viscosity, use matte clear or JA-244.
- To increase the curing speed, use an extender or medium.
- To increase surface hardening, use JAR-1 medium within 10% of the added amount.
- Use polyester plates for printing and clean with vinyl cleaning solvents.
(Excluding thick medium and clear decorative printing.))

print edition

Printing Methods & Formats

overprinting

mesh

300~350

Sol thickness

10 μm or less

Curing Method & Conditions

UV Exposure Conditions

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

Types of lamps

Metal Halide
Lamp

lamp strength

120W/cm, 1
lamp

irradiation distance

10cm

Conveyor speed

15~20m/min

total luminous amount

Approximately 120~150
mJ/cm²

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

Conditions	
printed matter	Hard vinyl sheet
print edition	300 Polyester Mesh
Sol thickness	10 μ m
Printing Film Thickness	10 μ m
hardening conditions	Metal Halide Lamp 120W/cm Single Lamp Conveyor speed: 15m/min Cumulative light intensity: 150mJ/cm ²

Results		
Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Release Test	100/100 Passing
hardness	JIS K-5400 8.4 Pencil Hardness	F~H
flexivity	JIS K-5400 8.1 Bending Test	excellent
overprinting property	Adhesion with 5-color overlapping printing	qualified
alcohol resistance	Made with 99.5% ethanol, load capacity 500g, 100 rubbing cycles	Slight fading
Water Temperature Resistance	Soak in 40° C warm water for 24 hours	No abnormalities
weather resistance	Sunshine Weather Meter (400 hours count as one year)	Yellow, red tones: No abnormalities in 1 year White, indigo, black: no abnormalities in 2 years

Weather Resistance List

Grade	color name
5	4702LP Yellow 4703LP Qinghuang
6	4705LP Golden Red 4718LP Red
6-7	4701LP White 4728LP Orange
7	4700LP Medium 4708LP Red
7-8	4716LP Pink 4725LP Purple 4787LP Ultramarine
8	4745LP Dark Blue 4746LP Blue 4775LP Green 4790LP Black

- When ink is diluted with medium or white ink for printing, its weather resistance drops significantly compared to the primary colors.
For applications requiring weather resistance, please use the 4700VX series.

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.