

English Version (Japanese Translation)

screen ink

Evaporative Drying Ink

general printing | Evaporative drying type

PET Ink 9100PL Series

This is a semi-gloss, environmentally friendly ink developed for printing on polyester film. In particular, it excels in printability and post-processing suitability.

Product Features

- Since it uses non-silicone defoamers, it is possible to process it by layering water-based adhesives after drying.
- Because the printing film is flexible, it offers excellent post-processing suitability.
- Excellent printing workability, capable of fine print printing and more.
- It enables high-density printing and excels in high-speed printing.
- It has excellent resistance to oil, gasoline, alcohol, and chemicals, as well as excellent weather resistance.
- It has excellent color mixing stability.
- resulting in a flat, semi-glossy finish.
- The issues such as rejection when mixing with other colored medium and other colored materials that rarely occurred with conventional products have been improved by enhancing leveling and improving the issue.
- *Environmentally Friendly Inks*As follows,*Reducing environmental impact of halogen and naphthalene*We are doing so.

Features

post-processing

printability

Environmental Measures

high concentration

flexibility

quick-drying

Color Stability

Use of non-silicone defoamers

Endurance

Chemical resistance

solvent resistance

alcohol resistance

Gasoline resistance

oil resistance

Recommended Printed Materials

Material

polyester-based

Untreated Polyethylene Terephthalate [PET]

PET Stickers

PET film

Finish, Texture, and Visual Effects

finish

semi-gloss

surface decoration

Flat surface

Color & Grade

Standard Colors (Standard Colors)

 00 Medium	 01 White	 08 Red	 16 Pink	 25 Purple	 28 Orange	 45 Dark Blue	 46 Blue
 75 Green	 85 Ultramarine						

Standard Colors (Weather-Resistant Colors)

 06 Cinnabar	 13 Qing Huang	 14 Red and Yellow	 18 Red
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BL Emission

 white	 yellow	 orange	 Red	 pink	 Blue	 Green	 violet
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Specifications

Lotus form

1kg Ink Can

How to use

- Dilute the ink with a standard PET solvent before use.
If you want to slow drying even further, you can use a PET returner; if naphthalene compatibility is not required, you can use Tetron solvent (standard, slow drying).
- The 9100PL series can use hardeners JA-960 (rapid reactivity, resistant to yellowing), JA-950 (slow reactivity, no yellowing), and JA-940 (flexible, no yellowing).
Adding about 10% curing agent to ink significantly improves adhesion and film properties (heat resistance, abrasion resistance, etc.).
However, using a curing agent will cause the ink to have a usable time (pot life).
- The defoamer is JA-201PL (naphthalene-compatible).
- PET ink is designed to slow down evaporation drying to prevent clogging, so always perform heat drying.

print edition

Printing Methods & Formats

High-speed printing		
Types of Editions	Cleaning	Recommended Printing Film Thickness
photographic plate	Vinyl cleaning solvent	thick

Curing Method & Conditions

This is for PET standard solvent diluted 10%, 270 mesh, and 6cm × 15cm solid printing.

Evaporative Drying Conditions

Dry fingertips	completely dry
80° CBOX dryer (warm air circulation) about 5 minutes	90° CBOX dryer (warm air circulation) approx. 30 minutes

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

Conditions		
Ink	PET9107P High-concentration white	
diluent solvent	PET Standard Solvent	
print edition	T-270	
base material	125 μ m Untreated Polyester Film	
dry	After heating and drying at 90° C for 30 minutes, leave at room temperature for one day	

Results		
Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Release Test	100/100 Passing
hardness	JIS K5400 8.4 Pencil Hardness Test	H~2H
weather resistance	Sunshine Weather Meter 700 hours	No abnormalities
alcohol resistance	99.5% Ethanol - 50 rubbings	No abnormalities
Alkali resistance	NaOH 5% aqueous solution, soaked for 48 hours	No abnormalities
acid resistance	H ₂ SO ₄ 5% aqueous solution, soaked for 48 hours	The surface is slightly whitened.
oil resistance	Hand Cream (Kao Nivea) 50 rubbing sessions	No abnormalities
abrasion resistance	Eraser (Lion PL-50) Load capacity 500g, stroke 80mm, 500 round-trip friction	slightly scratched No adhesion abnormalities

Weather Resistance List

Grade	color name
6	9185P Ultramarine
7	9100P Medium 9101P White 9108P Red 9175P Green
7-8	9106P Golden Red 9113P Qinghuang 9114P Qing Huang 9116P Pink 9118P Red 9125P Purple 9128P Orange
8	9145P Dark Blue 9146P Blue 9142P Black

- Generally, color-mixing products perform worse than primary colors.
Be especially careful with smoke and light colors, as they significantly diminish.
- The 10 special colors are set for customers who have been using their products for color mixing and other purposes.
Although this special color matches the previous product, please note that it contains halogens.
These 10 special colors are not recommended for new customers.

Notes

- If you have many reprints, set the drying time even longer.
Example: For printing with many steps, such as membrane switches, 90° C for 60~90 minutes
- As a standard product, there is the matte-type "PET Ink 9000 Series."
Since it is semi-glossy, please be very careful when blocking it.
- In terms of printing workability and blocking resistance, the 9000 series is superior.
For backing, we recommend using the 9000 series.
- The 9100PL series and 9000 series can be mixed, but since the types of defoamers used differ, "Hajiki" may occur.
- The transparent color of the 9100PL series also uses non-silicone antifoamers.
- 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.