

English Version (Japanese Translation)

Specific Customers

screen ink

Evaporative Drying Ink

general printing | Evaporative drying type

HIT Ink 1700 Series

It is ideal for printing automotive instrument panels that require heat resistance, as well as for high-temperature vacuum forming of vending machine panels and illuminated signs.

Product Features

- It excels in heat resistance (blocking resistance).
- It creates a highly hard, tough film without being brittle.
For this reason, it excels in impact resistance and bending resistance, and has excellent machinability in areas such as punching and moldability.
- It has excellent weather resistance.
- It is highly resistant to oil, alcohol, gasoline, and chemicals.
- Even when overprinting, lifting does not occur.

Features

post-processing

concealment

punchability

Strong Coating

formability

Endurance

heat resistance

Chemical resistance

solvent resistance

alcohol resistance

Gasoline resistance

oil resistance

Physical Endurance

flexion resistance

impact resistance

blocking resistance

Recommended Printed Materials

Material

Vinyl

Rigid Vinyl [PVC]

General plastic

Acrylic [PMMA]

Acrylic cast sheet

Acrylonitrile Butadienestyrene [ABS]

Polycarbonate [PC]

Final product

Automotive dashboard

Vending Machine Panels

Decorative Signage

Post-processing and secondary processing

punching

vacuum forming

Specifications

Lotus form

1kg Ink Can

How to use

- Dilute the ink with PC solvent (standard, slow-drying, retarder) before use.
If you want to slow drying even further, use a PC special retarder.

print edition

Types of Editions

photographic plate

Cleaning

Vinyl cleaning solvent

Curing Method & Conditions

The following finger-dry time is as follows: After diluting 1701 white with 15% of each diluent solvent, printing on a 6×6cm solid plate of T250 mesh,

This is the time it takes until the print surface is lightly pressed with your finger until no fingerprints remain. Please consider this as a guideline.

The actual drying time varies depending on printing conditions (film thickness, number of reprints).

Ink dries naturally as well, but to bring out the ink's true performance, heat drying is recommended.

When printing on polycarbonate, the solvent penetrates the material, making it dry to the touch faster, Please note that complete drying will take longer.

Evaporative Drying Conditions

Dry fingertips

- Dilution solvent: PC standard
 - Base material: Polycarbonate
 - 25° C (room temperature) about 6 minutes, 60° C (warm air) about 25 seconds
 - Base material: Acrylic
 - 25° C (room temperature) for about 14 minutes, 60° C (warm air) for about 45 seconds
- Dilution solvent: PC slow-drying
 - Base material: Polycarbonate
 - 25° C (room temperature) about 8 minutes, 60° C (warm air) about 30 seconds
 - Base material: Acrylic
 - 25° C (room temperature) about 16 minutes, 60° C (warm air) about 50 seconds
- Dilution solvent: PC retarder
 - Base material: Polycarbonate
 - 25° C (room temperature) about 10 minutes, 60° C (warm air) about 35 seconds
 - Base material: Acrylic
 - 25° C (room temperature) about 18 minutes, 60° C (warm air) about 55 seconds
- Dilution solvent: PC-specific retarder
 - Base material: Polycarbonate
 - 25° C (room temperature) approx. 17° C, 60° C (warm air) approx. 50 seconds
 - Base material: Acrylic
 - 25° C (room temperature) for about 35 minutes, 60° C (warm air) for about 1 minute 30 seconds

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

Conditions	
printing engineering	1701 White → EXO Black → EXO Black
printed material	0.5mm Transparent Europillon Sheet (Mitsubishi Engineering Plastic) or 0.5mm Transparent Panlight Sheet (Teijin Kasei)
print edition	Tetron 250 Mesh Bias Version
diluent solvent	PC Standard Solvent
drying conditions	Medium drying: 60° C for 15 minutes Final drying: 90° C for 1 hour, then at room temperature for 1 day

Results		
Test Items	Test Method	Results
Adhesion	Cross-Cut Cellotape Release Test	100/100 No peeling
pencil hardness	JIS K5400 8.4 Pencil Scratch Test 1kg, 0.5mm/second, 1mm	6H No exposed skin
High-temperature color-changing property	130° C 24 hours	The black version has no visible appearance. The white one has a slight yellowing tint.
alcohol resistance	100 rubbing sessions with methanol	not detached
blow resistance	Cutting by punching	No cracks or peeling of the paint film
weather resistance	Sunshine Weather Meter 700 hours	No Abnormalities in the Exterior
impact resistance	JIS K5400 8.3.2 DuPont Impact Test φ 1/2 inch, 500g, 50cm	No peeling due to impact deformation
flexion resistance	JIS K5400 8.1 Bending Test Mandrel diameter: 2mm, auxiliary plate thickness: 2mm	No peeling due to deformation from bending
water resistance	Soaked in 40° C warm water for 24 hours	No Abnormalities in the Exterior 100/100 No peeling
moisture resistance	60° C, 95% RH, 100 hours	No Abnormalities in the Exterior 100/100 No peeling
Cold and Hot Cycle	-30°C (2.5H) → 25°C (0.5H) → → 80°C (2.5H) → 25°C (0.5H) 10 cycles	No Abnormalities in the Exterior 100/100 No peeling

- Weather resistance varies depending on the color.
- Generally, color-mixing products degrade compared to primary colors, and especially smoke and light colors have significantly reduced weather resistance.

Notes

- Transparent polycarbonate sheets and transparent acrylic cast sheets do not have to worry about cracking. However, extruded plates, colored plates, and molded products may sometimes develop crack defects. If cracks occur, using SSP standard solvents can sometimes improve the issue. For these materials, please conduct confirmation tests before using ink and take measures such as annealing the material.
- This is a type of ink with a hard coating. If you need highly flexible ink, please use the "8000 Series PC Ink."
- This is a relatively strong type of ink. For low-odor inks, we recommend the "8100 Series SNAP Ink."
- 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.