SHENZHEN · CHINA

SHENZHEN SHENJIAHENG INK CO., LTD.

Anti-Counterfeiting Ink Series

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Products

8 anti-counterfeiting ink categories for global buyers

PRODUCT LINE

01

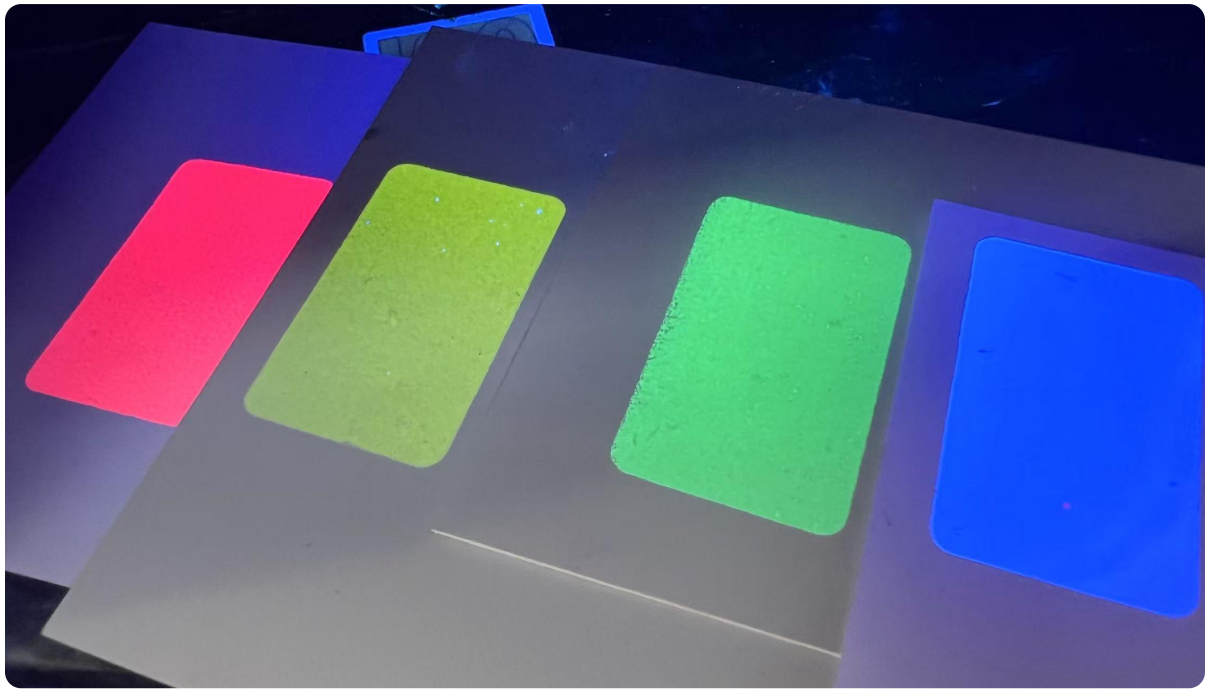
UV Anti-Counterfeiting Ink

INTRODUCTION

UV anti-counterfeiting ink is a specialty printing material that uniformly disperses fluorescent compounds in an eco-friendly resin system.

Colorless (or with a fixed background color) under daylight, the ink instantly emits vivid fluorescence in red, green, blue or yellow under 254 nm short-wave or 365 nm long-wave UV — and goes dark again the moment the light source is removed.

Dual-wavelength grades shift color between long- and short-wave UV, significantly raising the security threshold.



General Technical Specifications

Fluorescence brightness · 8,000 – 12,000 mcd/m²

Processes · offset / screen / flexo / inkjet coding

Substrates · paper, ceramics, plastic, metal, glass, textile

Resistance · withstands 200 °C – 1,500 °C; strong weatherability

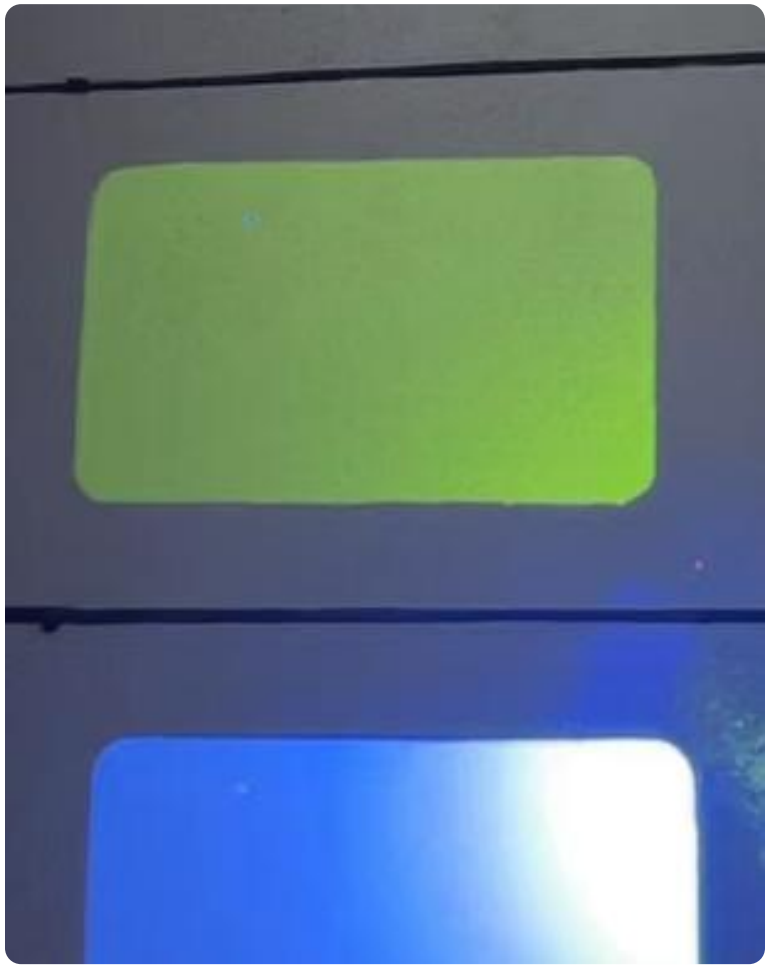
CORE ADVANTAGES

· High concealment, easy detection — 365 nm with a UV flashlight, 254 nm with professional gear

· Flexible customization — color, wavelength, pattern; supports one-product-one-code encoding

· Low-cost rollout — fits existing lines, no extra investment

· Safe & eco-friendly — RoHS / REACH compliant, suitable for sensitive packaging



Typical Application Fields

1. Financial instruments — invisible numbering on banknotes, cheques, invoices, deposit slips
2. Certificates & IDs — fluorescent security areas on ID cards, passports, diplomas, licenses
3. Premium FMCG — invisible logos / batch codes on tobacco, alcohol, cosmetics, health products
4. Brand protection — labels, hang tags, certificates for apparel, electronics, auto parts
5. Logistics & contracts — tamper-evident fluorescent marks on e-contracts and waybills
6. Substrates — glass, paper, plastic, metal, ceramics, wood

PRODUCT LINE

02

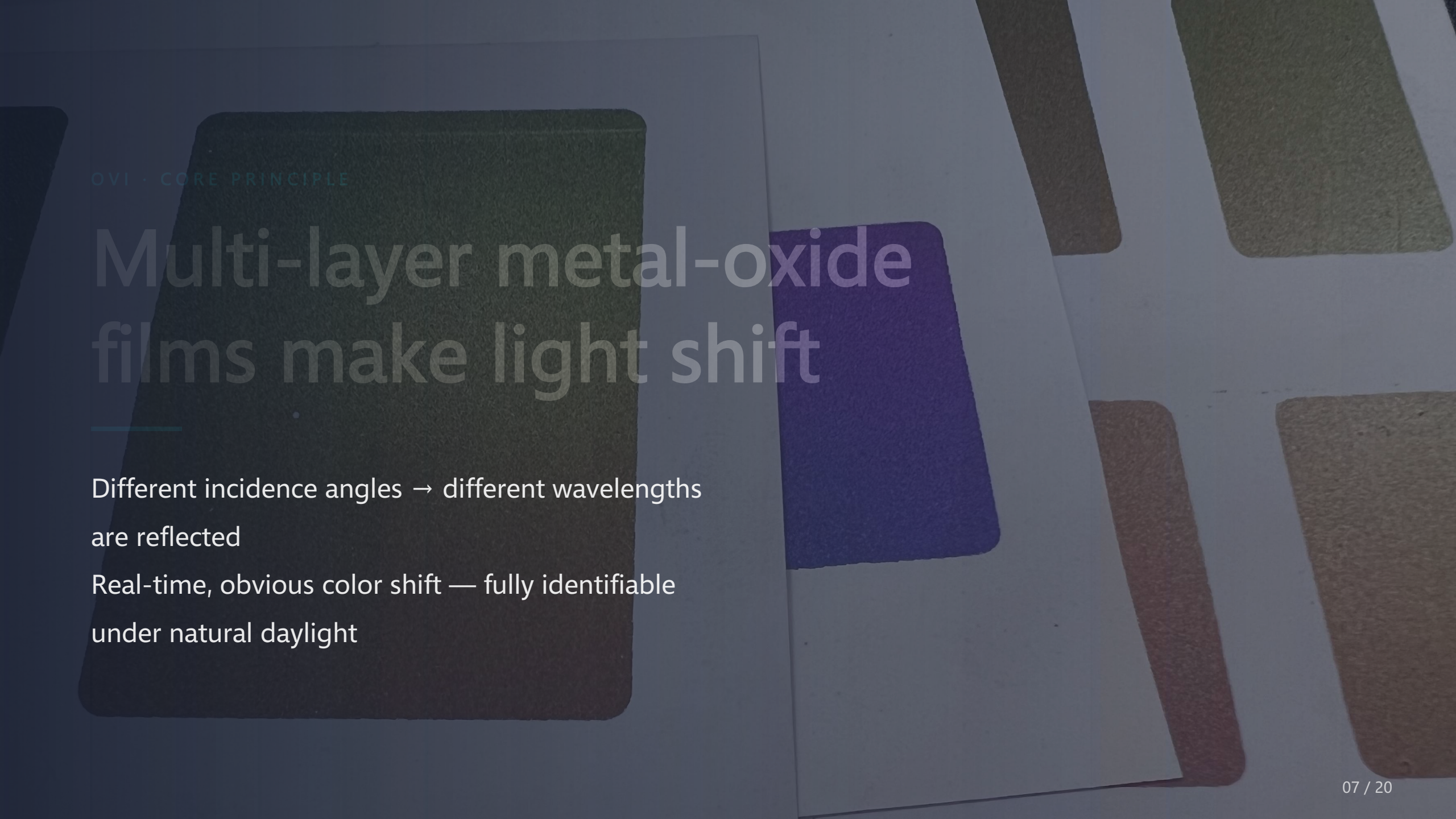
OVI Optical Variable Ink

Also called chameleon or color-shift ink

INTRODUCTION

A high-end anti-counterfeiting material based on multi-layer optical interference pigments — no UV or special light source needed.

Simply by changing the viewing angle, the ink color shifts reversibly and is directly visible to the naked eye. OVI sits among the highest security levels available today.



OVI · CORE PRINCIPLE

Multi-layer metal-oxide films make light shift

Different incidence angles → different wavelengths are reflected

Real-time, obvious color shift — fully identifiable under natural daylight

Applications & Advantages

TYPICAL APPLICATIONS

· Banknotes, passports, ID cards and other high-security documents

· VAT invoices, cheques, bills

· Premium packaging — tobacco, alcohol, cosmetics, luxury goods

· Anti-counterfeit labels and seals for pharmaceuticals and electronics

· Certificates, hang tags, warranty cards, security seals

PRODUCT ADVANTAGES

· Instantly recognizable — ordinary consumers verify in seconds

· Extremely high imitation cost — durable security effect

· No special light source — works under natural or indoor light

· Strong premium feel — elevates brand image

PRODUCT LINE

03

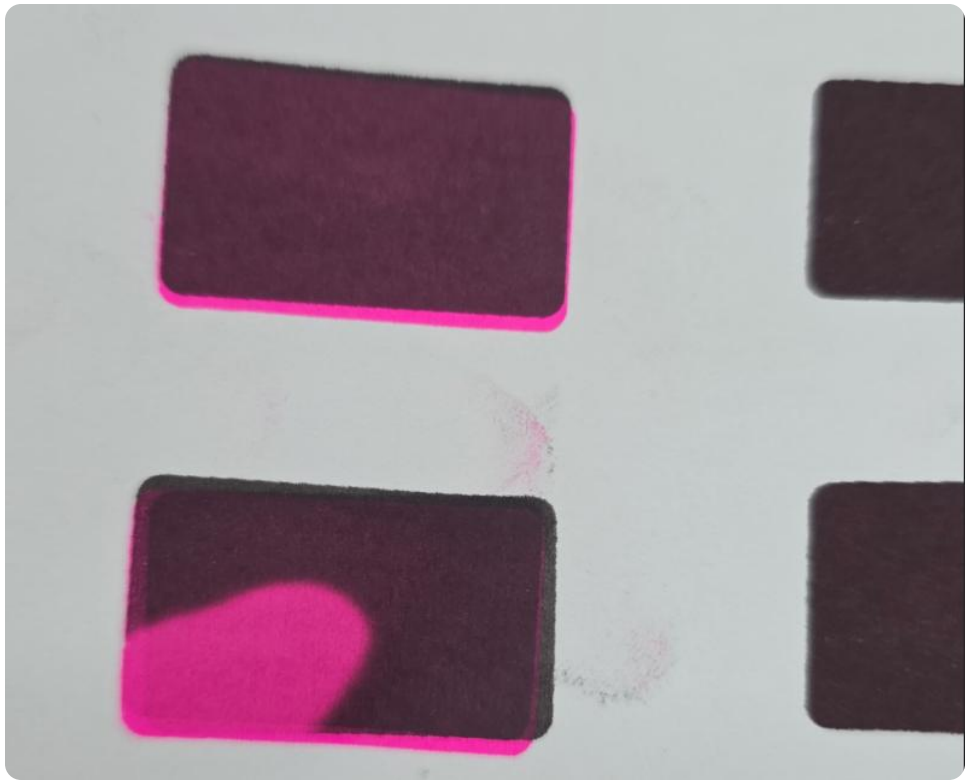
Thermochromic Ink

Heat-sensitive · temperature-indicating

INTRODUCTION

A specialty functional ink whose color changes reversibly or irreversibly with temperature — through color development, fading or shift.

Intuitive and easy to use, applied across anti-counterfeiting, warning labels, packaging, toys and cultural-creative products.



Classification by Trigger Temperature

All temperature points customizable on request

LOW TEMPERATURE

5 °C · 18 °C

Colorless above set point, develops color when temperature drops below it.

NORMAL TEMPERATURE

28 / 31 / 37 / 40 °C

Most commonly used. Triggered by body warmth.

HIGH TEMPERATURE

65 / 70 / 80 °C+

Colored below set point; fades and clears above it.

Product Features

· **Easy identification** — triggered by hand warmth, hot water or body heat, no equipment needed

· **Intuitive effect** — obvious color change, instantly recognizable

· **Broad printability** — suitable for screen, gravure, flexo and pad printing

· **Safe & eco-friendly** — non-toxic, heavy-metal-free, RoHS / REACH compliant

· **Flexible customization** — color, temperature and color-change mode customizable

PRODUCT LINE

04

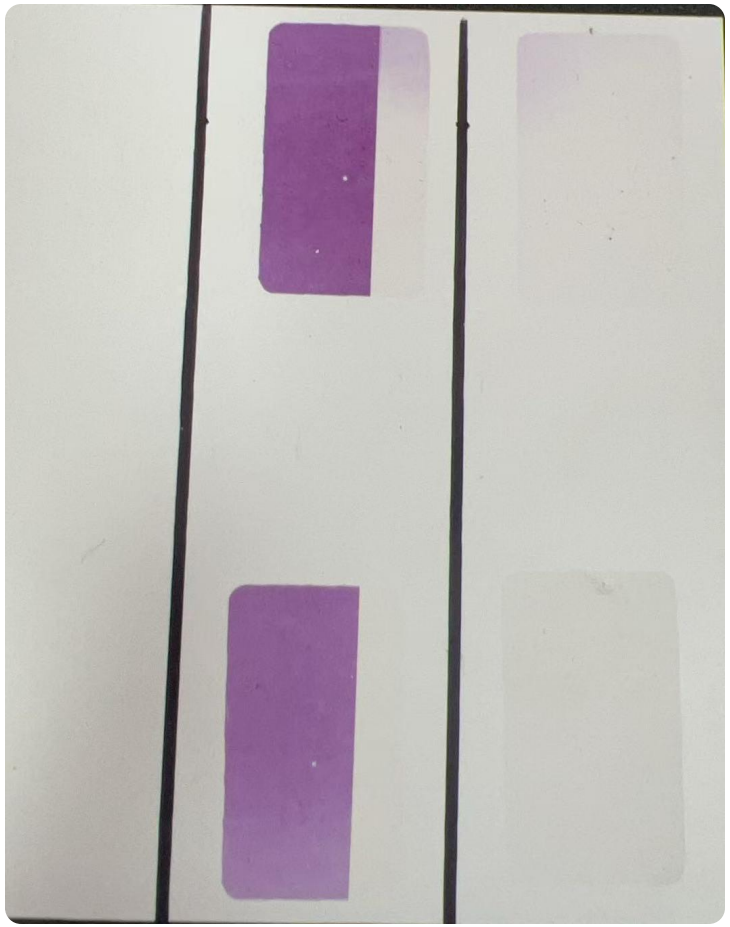
Photochromic Ink

Sunlight-triggered color change

INTRODUCTION

Colorless or light-colored indoors and in the dark, photochromic ink quickly develops color under sunlight or UV and gradually returns to its original color after sunlight is removed.

The effect is intuitive, novel and playful — combining anti-counterfeiting, decoration and fun.



Product Features

1. **No equipment required** — sunlight / natural daylight triggers obvious color shift outdoors, simple demonstration.

Fast color development within seconds, slow fade after leaving sunlight.

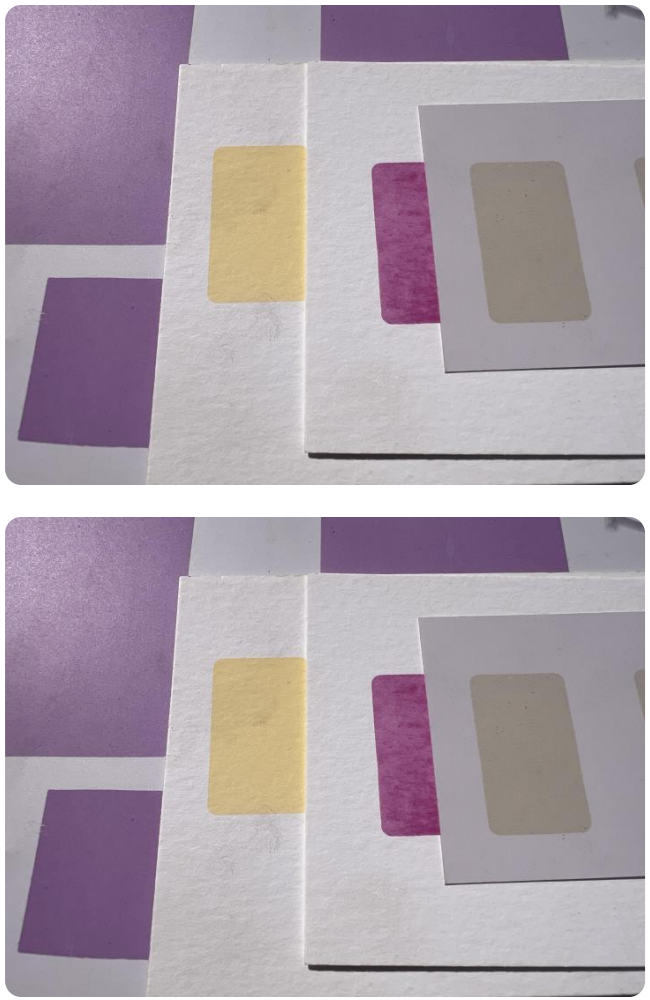
2. **Strong printability** — screen, gravure, flexo, pad printing and spray coating.

3. **Novel effect** — combines anti-counterfeiting with playfulness, increases product appeal.

Before / After Sunlight Effects

BEFORE SUNLIGHT

AFTER SUNLIGHT



MULTI-COLOR OPTIONS

SMARTPHONE IR PROXIMITY

IR transparent ink reveals the proximity sensor window while the rest of the housing stays visually opaque.

MEASUREMENT DATA

Direct readout of VLT, UV and IR transmittance under test conditions.

IR TRANSMITTANCE TESTER

On-site testing confirms 850 / 940 nm pass-through and visible-light blocking.

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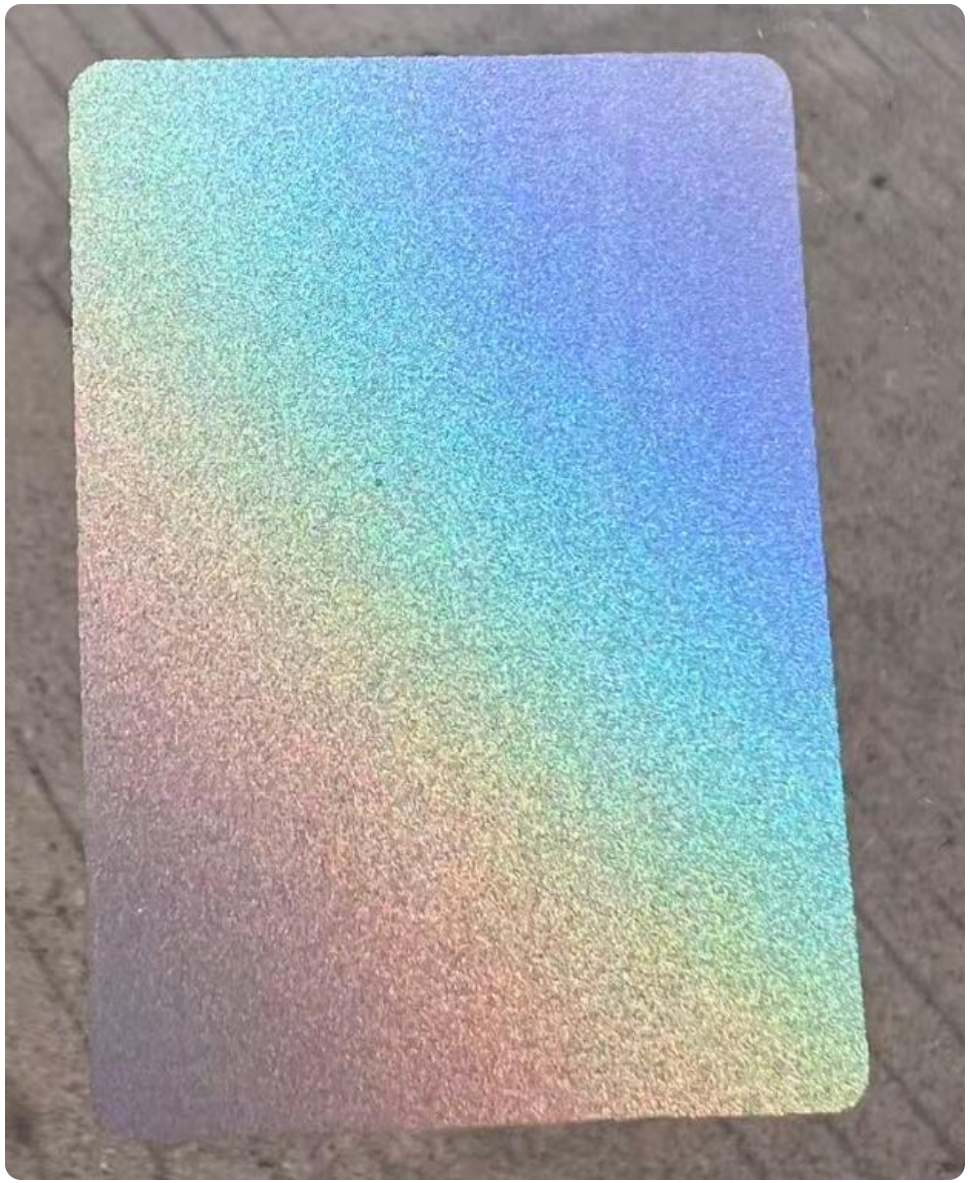


Structural-Color Holographic Ink

Holographic ink uses nano-scale physical structures to deliver dynamic rainbow, metallic highlights and viewing-angle color shifts through light diffraction and interference.

Structural color — distinct from ordinary chemical-color inks.

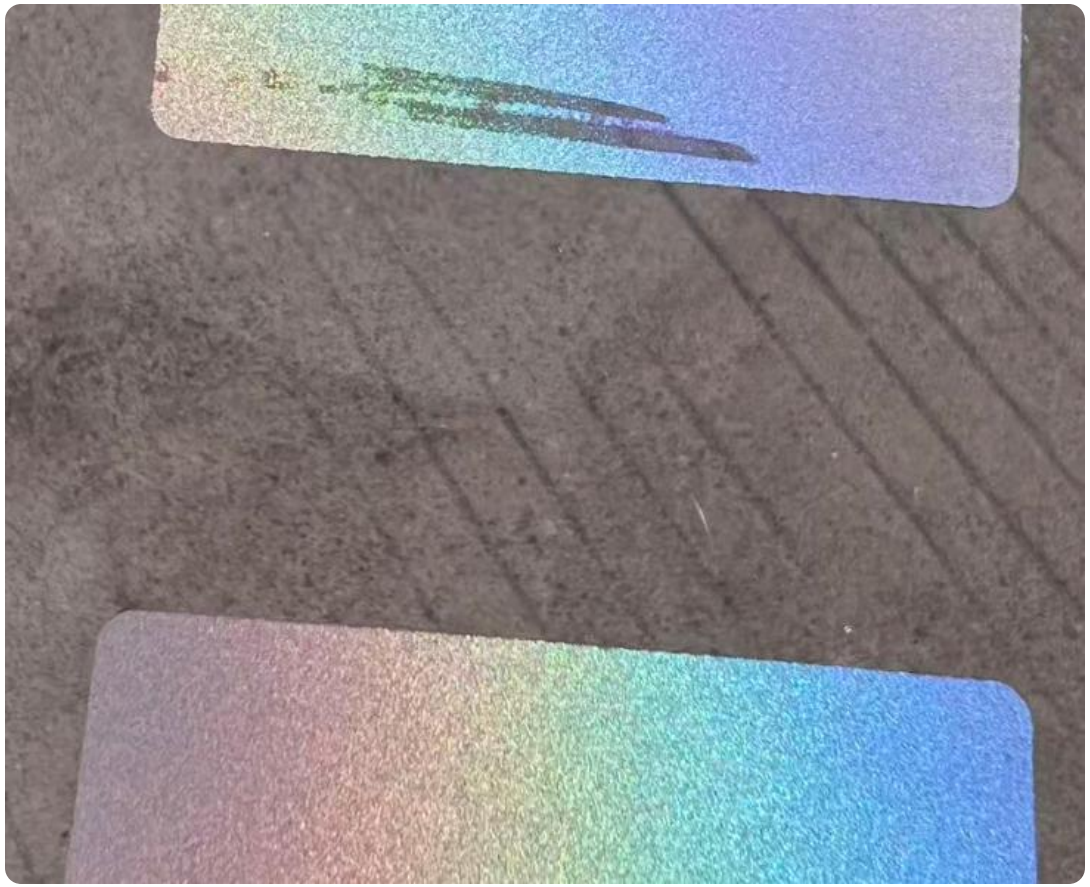
No extra light source — rainbow or single-color highlights appear naturally under daylight.

Dual value — premium decoration + strong anti-counterfeiting in one layer.

A core choice for premium packaging of tobacco, alcohol, beauty, electronics, documents and bills.

Holographic Effects

Rainbow and metallic highlights shift with viewing angle — no UV or special light required.



RAINBOW SHIFT

METALLIC HIGHLIGHT

Metallic Mirror Finish

Mirror ink forms a high-reflectivity metallic mirror finish on transparent substrates (or treated smooth surfaces). Usually reverse-printed on the back of PET / PC / PMMA / glass so the front shows a bright metallic mirror gloss.

Replaces vacuum metallization and hot-stamping processes.

Combines premium decoration with a strong anti-counterfeiting threshold.

A core choice for electronic panels, premium packaging and cards / credentials.

Glow-in-the-Dark Long Afterglow

Absorbs visible-light energy (natural daylight / lamps) and keeps glowing in the dark.

No power, no UV — after a few minutes of light, glows for several hours in the dark.

Anti-counterfeiting · warning · decoration · emergency indication

08 PHOSPHORESCENT INK

Glow-in-the-Dark Long Afterglow

Absorbs visible-light energy (natural daylight / lamps) and keeps glowing in the dark.
No power, no UV — after a few minutes of light, glows for several hours in the dark.

Anti-counterfeiting · warning · decoration · emergency indication