

H106 Series — OPP Film Printing Ink



TECHNICAL DATA SHEET

1. Product Description

H106 is a single-component, low-odor solvent-based ink specially developed for printing on OPP, BOPP films, and other polypropylene-based flexible substrates.

It provides excellent adhesion, good color reproduction, and smooth printing performance for screen printing and pad printing applications.

2. Recommended Substrates & Applications

Recommended for OPP films, BOPP films, PP packaging materials, synthetic paper, and other polypropylene-based flexible substrates.

Typical applications include labels, packaging components, promotional materials, and printed plastic films requiring good adhesion and durability.

3. Key Features

- Excellent adhesion on OPP and BOPP film substrates
- No pretreatment required for selected OPP materials
- Good flexibility for flexible film applications
- Excellent color reproduction and smooth printing performance
- Suitable for screen printing and pad printing applications

4. Printing Instructions

1. Remove dust, oil, moisture, and other contaminants from the substrate surface before printing.
2. Stir the ink thoroughly before use. Adjust viscosity with the recommended thinner according to printing speed, ambient temperature, and image requirements.
3. For fine lines or detailed graphics, adjust printing parameters and thinner addition to achieve optimal print definition.
4. Recommended screen mesh: 120–150T. Select the final mesh count according to artwork, ink deposit, and printing conditions.
5. Allow the printed ink film to dry naturally or use controlled oven drying according to production requirements. Confirm the final drying schedule through production trials.

5. Precautions & Storage

1. Always conduct a production trial before mass printing. Adhesion and resistance may vary with resin grade, surface additives, molding conditions, and surface energy.
2. Some PP or PE surfaces may require corona treatment, flame treatment, or a compatible PP surface treatment agent before printing. Confirm the required pretreatment by adhesion testing.
3. Typical thinner addition is 20–30%. Adjust viscosity according to the actual printing environment and process requirements.
4. Drying time varies with substrate, ink-film thickness, temperature, and ventilation. Confirm adequate drying before performance testing or further processing.
5. Do not mix with unrelated ink systems. Prepare metallic gold or silver shades immediately before use and use them within the recommended working period.
6. Flammable product. Keep the container tightly closed and store in a cool, well-ventilated area away from heat, sparks, and open flames.
7. Use suitable personal protective equipment. Avoid skin and eye contact. If the product enters the eyes, rinse immediately with plenty of water and seek medical attention.
8. Shelf life is 12 months from the date of manufacture in unopened original packaging. Re-test suitability before using expired material.

6. Technical Reference Data

Test Item	Result	Test Method / Condition
Ink Fineness	$\leq 12 \mu\text{m}$	Grind gauge
Dry-Film Gloss	$\geq 65 \text{ GU}$	60° gloss meter
Surface Drying	Hot air: 40–60°C (Recommended: 50°C)	Reference drying condition
Full Drying	Air dry for 24 hours, or oven cure at 80°C for 30 minutes	Reference drying condition
Adhesion	100/100 squares retained	1 mm × 1 mm cross-cut; 3M tape neel
Flexibility	No cracking or peeling	Bending test
Abrasion Resistance	No ink removal	Manual rubbing test
Alcohol Resistance	No visible change	Alcohol rubbing test
Water Resistance	No visible change	Water immersion test
Heat Resistance	No visible change	80°C for 12 h

Note: Performance data is based on internal laboratory tests and may vary depending on substrate and application conditions. Please conduct a trial test before mass production.

7. Compliance Information

Standard colors in this series can be supplied to meet applicable RoHS, EN 71, and ASTM heavy-metal requirements. Confirm the required regulation, test method, color, and target market before ordering. Supporting test reports are available for selected products upon request.

8. Important Notice

The information in this document is based on internal reference testing and is provided as technical guidance only. Because substrate grades, surface treatments, printing conditions, film thickness, drying, and end-use requirements vary, users must verify suitability through their own trials before production.