

# H698 Series — Special Abrasion Resistant Universal Ink



## TECHNICAL DATA SHEET

### 1. Product Description

H698 is a glossy, single-component, low-odor solvent-based screen printing ink developed for applications requiring exceptionally strong adhesion, abrasion resistance, and alcohol resistance.

It offers broad compatibility across selected plastics, PET materials, metals, and coated surfaces.

### 2. Recommended Substrates & Applications

Recommended for selected rigid and flexible PVC, PMMA, ABS, PC, PS, PET, metal, and compatible coated surfaces.

Typical applications include nameplates, equipment panels, molded components, industrial parts, and products subject to frequent handling or cleaning.

### 3. Key Features

- Very strong adhesion on compatible substrates
- High abrasion and alcohol resistance
- Broad compatibility across selected plastics, PET, and metals
- Glossy finish with good printability and leveling
- Suitable for demanding industrial applications

## 4. Printing Instructions

1. Remove dust, oil, mold-release residue, and other contaminants from the substrate before printing.
2. Stir the ink thoroughly before use. Select S-8 Fast-Drying Thinner, S-6 Medium-Drying Thinner, or S-9 Slow-Drying Thinner according to ambient temperature, printing speed, and image requirements.
3. If fine lines or text show spreading, feathering, or blurred edges, add the recommended retarder paste in a controlled amount.
4. Recommended screen mesh: 100–200T. Select the final mesh count based on ink deposit, artwork, and printing conditions.
5. Allow the printed ink film to fully cure before final performance evaluation. Air dry for 24 hours at room temperature, or oven cure at 80°C for 30 minutes.

## 5. Precautions & Storage

1. Always conduct a production trial before mass printing. Adhesion and resistance may vary significantly between plastics, PET grades, metals, coatings, and surface treatments.
2. Typical thinner addition is 20–30%. Adjust viscosity according to the actual printing environment and process requirements.
3. Drying time varies with substrate, film thickness, temperature, and ventilation. Confirm the required drying schedule before production.
4. Flammable product. Keep the container tightly closed and store in a cool, well-ventilated area away from heat, sparks, and open flames.
5. 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.
6. 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<br>(Recommended: 50°C)                         | Reference drying condition                                               |
| Full Drying           | Air dry for 24 hours, or<br>oven cure at 80°C for 30<br>minutes | Reference drying condition                                               |
| Alcohol Resistance    | No visible change                                               | 500 g load; 1,000 double rubs<br>with an alcohol-saturated<br>cotton pad |
| Adhesion              | 100/100 squares retained                                        | 1 mm × 1 mm, 100-grid cross-<br>cut; 3M tape peel                        |
| Acid Resistance       | No visible change                                               | 5% HCl immersion for 24 h                                                |
| Alkali Resistance     | No visible change                                               | 5% NaOH immersion for 24 h                                               |
| Salt-Water Resistance | No visible change                                               | 5% NaCl immersion for 24 h                                               |
| Water Resistance      | No visible change                                               | Tap-water immersion at 20°C<br>for 96 h                                  |
| Abrasion Resistance   | No substrate exposure                                           | 500 g load; 1,000 double rubs<br>with an abrasive eraser                 |
| 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, REACH, PAHs, and EN 71-3 requirements. Halogen-related and other regulatory claims must be confirmed against the current test report for the selected color and target market.

## 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, lamp type, UV intensity, ink-film thickness, printing conditions, and end-use requirements vary, users must verify suitability and curing through their own production trials.