



Technical Bulletin
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HeatFold Series
UV Curable Screenprinting Inks

HeatFold is an extremely flexible UV curable screen printing ink, specially formulated for printing on plastics intended for heat-bending and folding. HeatFold exhibits outstanding heat-bending characteristics while maintaining excellent adhesion and opacity. Additionally, this ink provides ideal characteristics for heat-bending and routing of PETG, PVC, Polycarbonate, and acrylic sheets with no chipping or loss of adhesion.

- Extreme flexibility ideal for heat-bending
- Multiple pass heat-bending without chipping
- Excellent inner-coat adhesion
- Superb water / moisture resistance
- Flexible for multi-layer applications/die-cutting
- N-VP and heavy metal free
- Elevated halftone color strength for backlit prints

Printing

Mix well prior to use. While supplied in press ready condition, HeatFold may be reduced up to 10% with #9058 or #1458 Thinner. Care should be taken to print the ink at optimal temperature 70 - 90°F (21 - 27°C). Cool ink will have heavier viscosity and will not flow properly. Hot ink will be lower in viscosity, resulting in poor definition and decreased opacity.

HeatFold is available in twenty opaque standard colors. Custom matches, metallic, fluorescent and transparent colors are obtainable upon request.

Curing

Ink will cure well when printed through a 355 (140cm) plain weave polyester mesh or finer. HeatFold's optimal cure window of 310 - 350 mJ / 755 mW is generally achieved with one 300 watt per inch mercury vapor lamp at a belt speed of 30 feet per minute (10 m/min). This should provide thorough cure of the product including opaque colors. Belt speeds can be increased dramatically as the substrate gauge is reduced.

Adhesion should be a minimum of 95% from curing unit with final adhesion developing within four (4) hours of initial polymerization.

If a loss of gloss or adhesion due to insufficient cure is noticed, the use of 5 - 10% HeatFold Mixing/Overprint Clear will increase light penetration and improve cure.

Recommended Substrates

- Polystyrene -PETG -Polycarbonate
- High Impact Polystyrene (HIPS)
- PVC-Acrylic

Coverage

3,200 to 3,600 square feet per gallon based on ink deposit of .40 – .60 mil, dependant on color and printing conditions.

Storage

Care should be taken to store ink in tightly closed containers located in a cool (60 - 80°F/ 15 - 27°C) dark place. After long production runs, excess ink from the screen should be properly disposed. With suitable conditions, unopened ink is expected to have a shelf life of approximately twelve (12) months from date of manufacture.

Metallics

Use the Metallic Mixing Clear to prepare metallic ink, as its increased viscosity helps insure a good particle suspension and extended shelf life. Recommended mixing ratios, by weight are:

- 28% gold paste
- 12% silver paste

For optimum coverage and opacity, a 280 - 305 (110 - 120cm) plain weave mesh is recommended. Use HeatFold Overprint Clear for extended weatherability and to improve the non-tarnishing properties of the product.

Additives

9058 or 1458 Thinner up to 10% as needed.

Precautions

Read the material safety data sheet prior to processing. It contains instructions for precautions to be taken when handling inks. If ink comes in contact with skin, wipe ink off with a clean, dry cloth (do not use solvent). Wash and rinse the affected area with soap and water.

We strongly recommend a preliminary test of printing and curing on the supports intended to use, in order to ascertain exactly the procedure, the working times and the obtained effect. MIX WELL BEFORE USING. Follow the instructions on the package, ask for the safety data sheets and always follow the instructions contained therein.

IMPORTANT– Only the correct use of the product will allow satisfactory results. For this reason, closely related to the product supplied, Polymeric must decline all direct and indirect responsibility for the proper or improper use of the product. Make certain that product is right for the desired use, work according to the instructions given in our technical data sheets. Before use contact Technical Service in case of doubt.

More than a shade superior

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