

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.

Performance Properties

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

Recommended Substrates

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

Curing/Processing Guidelines

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/cm², 755 mW/cm² 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% form curing unit with final adhesion developing within four (4) hours of initial polymerization.

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

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 heavier viscosity and will not flow properly. Hot ink will be lower in viscosity resulting in poor definition and decreased opacity.

Coverage

3,200 to 3,600 square feet per gallon based on ink deposit .40 - .60 mil dependent 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 manufacturer.

Metallic's

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

- 28% gold paste
- 12% silver paste

For optimum coverage and opacity, 280-305 (110 - 120cm) plain weave mesh. Use WR Overprint Clear for extended weather ability and to improve the non-tarnishing properties of the product.

Additives

- 9058 or 1458 Thinner - Use up to 10% as needed

Precautions

Read the 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 off with a clean, dry cloth (do not use solvent). Wash and rinse the affected areas with soap and water.

Process Printing

For superior halftone reproduction, halftones are available in a range of density levels. Additional control of density may be achieved with use of GP HT Base. For best results, use 380 (140cm) or finer and a smooth, thin stencil coating should be utilized with process printing.

	Press Ready	High Density	Backlit Density
Halftone Yellow	0.90	1.10	1.35
Halftone Magenta	1.40	1.75	2.05
Halftone Cyan	1.40	1.80	2.20
Halftone Black	1.60	2.00	2.25

Color Availability

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

HF-101 Primrose Yellow	HF-210 Ultra Blue
HF-111 Lemon Yellow	HF-220 Emerald Green
HF-123 Medium Yellow	HF-225 Forest Green
HF-131 Brilliant Orange	HF-226 Lime Green
HF-135 Vivid Orange	HF-235 Teal
HF-141 Fire Red	HF-240 Purple
HF-151 Scarlet Red	HF-260 Brown
HF-155 Rubine Red	HF-301 Opaque Black
HF-160 Rhodamine Red	HF-311 Opaque White
HF-180 Warm Red	HF-312 Jet Black
HF-190 Process Blue	HF-026 Brilliant White
HF-200 Peacock Blue	HF Mixing/Overprint Clear
HF-205 Reflex Blue	HF Metallic Mixing Clear

Pantone Matching System® Colors

The nine PANTONE® approved Color Matching System (CMS) shades are used to simulate the PANTONE® Color Specifier colors. Formulas were designed for maximum opacity and are available in book or Imaging Color source Software formats

HF-064 CMS GS Yellow	HF-066 CMS RS Yellow
HF-114 CMS Orange	HF-121 CMS YS Red
HF-164 CMS BS Red	HF-165 CMS Magenta
HF-127 CMS Violet	HF-230 CMS Blue
HF-325 CMS Green	HF Tinting White
HF Shading Black	HF Mixing/Overprint Clear

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We strongly recommend testing complete construction as per shop conditions prior to full production. MIX WELL BEFORE USE. Follow the directions on the package, ask for the safety data sheets and always follow the directions 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 our Technical Service in case of doubt.

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C. A Pretest Prior to Production is Recommended to Ensure Proper Suitability for the Intended Application.