



## INKJET SOLUTIONS

# VUTEk GS-TF Thermoforming Ink

## Digital UV Ink Optimized for Deep-Draw Thermoforming Applications

EFI™ VUTEK® GS-TF Ink is a patented, extremely flexible, UV curable digital ink specially formulated for first-surface interior and second-surface exterior/backlit applications where common thermoplastic is specified for deep-draw thermoforming. VUTEk GS-TF Ink exhibits outstanding elongation characteristics while maintaining excellent adhesion and opacity. Additionally, this ink contains ideal characteristics for heat bending and routing of acrylic sheets with no chipping or loss of adhesion.

### **VUTEk GS-TF Inks Are Optimized for the Following Printers:**

- GS3250 Pro-TF
- GS2000 Pro-TF

### **Typical Applications for These Printers and Inks Include:**

- Outdoor signage
- POP signage and displays
- Promotional products and beverage lights and signs
- Vending and Gaming
- Automotive
- Industrial

### **Performance Properties**

- Extreme elongation for draw depth, (deep draw application)
- Superb water / moisture resistance
- Flexible for multi layer applications/die-cutting
- Elevated color strength for backlit applications

### **Recommended Substrates**

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

### **Curing/Processing Guidelines**

Ink will cure well when utilizing an optimal cure window of 310–350 mJ / 755 mW. This should provide thorough cure of the product. Adhesion should be a minimum of 95% from curing unit with final adhesion developing within four hours of initial polymerization.

If a loss of gloss or adhesion due to insufficient cure is noticed, a decrease of saturation levels will increase light penetration and improve cure.

The VUTEk GS-TF Ink vacuum forming system, when properly cured, develops an extremely flexible, formable ink film. Even though the cured ink film has been engineered to optimize processing and handling, the printer must assume responsibility for pre-testing and qualifying the parameters for stacking printed parts prior to each run.

The intensity of cure, weight or caliper of the material and/or elevated ambient temperatures and humidity of the printing and storage environments will influence block resistance.

EFI also recommends that the printer consider the use of slip-sheets or racks until printed parts have cooled. It is recommended that additional precautions be made for shipping by truck as temperature in trailers can exceed 160°F / 70°C. EFI does not recommend the stacking of VUTEk GS-TF Ink on two-sided prints.

## INKJET SOLUTIONS

### EFI VUTEk GS-TF Thermoforming Ink

#### Lightfastness

Emmaqua extensive weathering tests are currently in progress. Estimated exterior durability is three (3) to five (5) years until actual tests are completed. Actual exposure tests should far exceed three (3) to five (5) years. Accelerated machine weatherings are reference standards and cannot precisely reproduce actual outdoor performance. Based on prior correlation of accelerated testing versus real-time exposure, 500 hours is equated to approximately one year of exposure in south Florida, USA, where the angle of inclination of the sun is 45°.

#### Storage

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

#### 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.



303 Velocity Way  
Foster City, CA 94404  
650-357-3500  
[www.efi.com](http://www.efi.com)

Auto-Count, BioVu, BioWare, ColorWise, Command WorkStation, Digital StoreFront, DocBuilder, DocBuilder Pro, DocStream, EDOX, the EFI logo, Electronics For Imaging, Fabrividu, Fiery, the Fiery logo, Inkware, Jetrion, MicroPress, OneFlow, PressVu, PrintIntellect, PrinterSite, PrintFlow, PrintMe, PrintSmith Site, Prograph, RIP-While-Print, UltraVu and VUTEk are registered trademarks of Electronics For Imaging, Inc. in the U.S. and/or certain other countries. BESTColor is a registered trademark of Electronics For Imaging GmbH in the U.S. The APPS logo, AutoCal, Balance, ColorPASS, Dynamic Wedge, EFI, Estimate, Fast-4, Fiery Driven, the Fiery Driven logo, Fiery Link, Fiery Prints, the Fiery Prints logo, Fiery Spark, FreeForm, Hagen, the Jetrion logo, Logic, Pace, Printcafe, the PrintMe logo, PrintSmith, Print to Win, PSI, PSI Flexo, Rastek, the Rastek logo, RIPChips, SendMe, Splash, Spot-On, UltraPress, UltraTex, UV Series 50, VisualCal, the VUTEk logo and WebTools are trademarks of Electronics For Imaging, Inc. in the U.S. and/or certain other countries. Best, the Best logo, Colorproof, PhotoXposure, Remoteproof, and Screenproof are trademarks of Electronics For Imaging GmbH in the U.S. and/or certain other countries. All other terms and product names may be trademarks or registered trademarks of their respective owners, and are hereby acknowledged.