

Printing on Non Porous Packaging Surfaces

Introduction: HP thermal inkjet (TIJ) has been used successfully for Product Identification and Package Coding the past 2 decades. The 'sweet spot' for TIJ has been corrugate cases and other porous applications where TIJ inks can absorb into the substrate itself. Now, with the introduction of HP 2580 Black Solvent Ink and the latest line of industrial coding products from AT Information, the possibilities for TIJ have never been greater.



The Players: AT Information Products has been providing high performance inkjet printing solutions for Product Identification and Package Coding for more than forty years. Its history of innovations began with its predecessor American Technologies (AT) and continues today through its relationship with Hewlett Packard and HP's best-in-class print technology,

The Proposition: TIJ has been a popular choice for packagers due to its compelling and indisputable value proposition.

Clean technology: The ink stays on the packaged product, not on the floor, conveyor or other machinery.

Reliable & Easy to Use: Revenue-generating packaging lines stay up and running and don't require a lot of training to operate.

High Print Quality: TIJ delivers sharp contrast and barcode readability for track and trace compliance.

The Challenge: A common misconception is that TIJ isn't industrial enough for packaging environments because it was originally designed to print in office environments. Many of the competitors making these claims have since added TIJ to their product lines.



With this challenge in mind, AT Info worked with HP to develop a complete solution to address the major pain points in Product Identification and Package Coding.

The alternative print technologies aren't attractive or sustainable. Continuous Inkjet (CIJ) is widely believed to be messy, unreliable and unsafe. Additionally, the Total Cost of Ownership with CIJ is alarming when you factor-in the downtime, annual maintenance, and hazardous materials handling costs.

The Solution: Behold the ATIP 500 series printers and HP 2580 Black Solvent Ink for coding on non-porous substrates including foils, films, hard plastics, glossy boxes, wood, metals & more.



AT Info coders are industrial, flexible and capable. The iJet and X1Jet have an on-board controller, slim profile, and can jet the latest inks from HP. Additionally, the X2Jet and X4Jet controllers are ideal for managing multiple print heads and various print technologies (HP, Funai, Trident, Xaar) when required.

The HP 45si cartridge, with its recent modifications and enhancements, accommodates more aggressive inks. These enhancements also allow for significant improvement in the distance between the print head and the packaging material (ie Throw Distance). Gone are the days when TIJ could only print on flat, permeable surfaces. The increased Throw Distance helps TIJ print on rounded surfaces approximately 5mm away. Compare to 1mm previously.

The Proof Points: TIJ is a mainstream solution for Product Identification and Package Coding, particularly when the substrate is porous in nature. Now, with the new AT Info system including HP 45si technology, TIJ is discovering non-porous applications with long-time CIJ customers who demand more from their inkjet.



Examples of early adopters and applications

✓ **Major Snack Food**

Company: Printing lot & batch codes on plastic poly bags. The AT Info coder with its slim profile can be mounted on the traversing bag sealer so printing occurs simultaneously.

✓ **National Egg Producer:**

Printing expiration dates on Styrofoam, Clear Plastic, and Pulp egg cartons. Messy production environments are no problem for TIJ and its concealed print head and ink cartridges.

✓ **WW Hand Sanitizer**

Company: Printing serial numbers on plastic hygiene pouches. TIJ can fire ink through specified print nozzles to accommodate high speeds and constrained production space.

What's Next: HP 2580 Black Solvent Ink is now available in black disposable print cartridges. AT Info is also working with HP and other licensed partners to bring colors and bulk inks to market.



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