

**IMPRIMA**
For Inherently Simpler, Superior, Greener Printing



**SET
YOURSELF
APART**

Introducing the waterless
printing plates from Toray

WHAT IS WATERLESS PRINTING?

An Inherently Simpler, Superior, Greener Printing Process

SECURITY • METAL DECORATION
LABEL • GENERAL COMMERCIAL
COLDSET/HEATSET • CD/DVD

FEATURES & BENEFITS

- ✓ VERSATILE LINE OF WATERLESS THERMAL PLATES
- ✓ SUITABLE FOR USE IN DIVERSE APPLICATIONS
- ✓ LONG RUN LENGTHS
- ✓ HIGH RESOLUTION
- ✓ STRONG CHEMICAL RESISTANCE
- ✓ IDEAL FOR PRINTERS USING UV AND EB CURABLE INKS

WATERLESS OFFSET PLATES

The conventional “wet” offset printing method requires two primary components – ink and water – to reproduce an image on press. Managing two different fluids in the printing press is a complex process, making the press operator’s job of maintaining consistent print quality more difficult than it needs to be.

Waterless printing is an alternative printing method that can be used with standard offset presses. The key to waterless printing is a plate that uses an ink-repelling silicone coating to eliminate the need for water (the primary

component in the dampening solution used in conventional offset). Not only does this make maintaining consistent quality easier, it allows printing operations to significantly reduce the amount of water they must use.

Toray IMPRIMA waterless plates offer a choice of long run length or high resolution printing, specialized for the following applications: security, metal decoration, label, general commercial, coldset/heatset, CD/DVD

Conventional „Wet“ Printing



Dampening solution (shown in blue, below left) is used to repel ink (in magenta). This results in tainted water being discharged from the press.

Waterless Printing



Silicone polymer (in green) is used to repel ink. The mixture of water, alcohol or alcohol substitute and etching fluid is not required in the waterless printing process.

By eliminating the dampening solution from the printing process, a waterless printing system improves productivity, quality, while reducing the environmental footprint of the operation.

HOW THEY WORK



waterless printing plates

Toray is dedicated to bringing to market innovative solutions that use fewer natural resources. Waterless printing with Toray waterless offset plates will set you apart from your competitors with higher quality and a smaller environmental footprint.

It's easy to replace conventional printing plates with waterless offset printing plates in any workflow to take advantage of the benefits of waterless offset printing.

Waterless offset plates from **Toray** feature a layer of silicone that is applied on the surface of the plate's thermal sensitive layer. Plates are imaged using an infrared laser in a similar manner to imaging of conventional digital offset plates.

Heat passes through the silicone layer, striking the thermal sensitive layer beneath, creating the desired image. Processing removes the silicone from the imaged areas, leaving only the ink-receptive thermal layer. The remaining silicone layer in the non-image area is not ink-receptive.

Toray Waterless Offset Plate Range

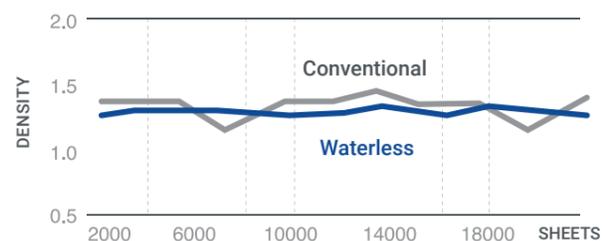
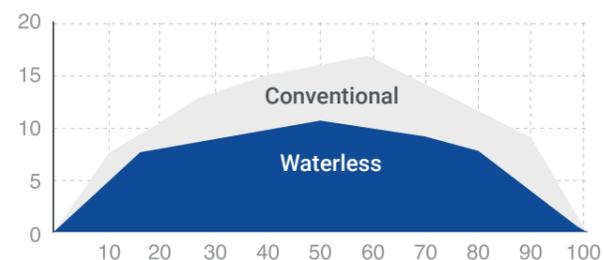
Toray's new line of waterless offset plates features many important new capabilities including long run lengths without post-heating, strong chemical resistance and super high resolution. Toray's versatile line of waterless thermal plates is suitable for use in diverse applications such as labels,

CD/DVDs, fine art reproductions, security printing and newspapers. It is also ideal for printers using UV curable inks for packaging printing on non-absorbent substrates as well as for sheetfed applications and publication printing on web presses that require exceptional image quality.

OPTIMUM QUALITY

Toray waterless plates offer sharper dots, higher resolution and wider color gamut than conventional offset plates.

- /// Lower dot gain
- /// Highest resolution for lenticular and FM 10 stochastic screened work
- /// A wider color gamut with richer, bolder colors
- /// Uniform print and color quality
- /// Superior registration
- /// Elimination of fan-out and paper stretch when perfecting or using lightweight stocks, caused by fountain solution



PROCESSORS

Built on 25 years of experience in manufacturing processors and ancillary equipment.

Heights Processor TWP



- Heavy duty construction
- Fully compatible with Toray Waterless Plates
- Fully automated operation
- Plate setter interfaces to the major CtP manufacturers
- Ease of cleaning and maintenance
- Can be connected to water recirculation units

The TWP 680/1250 Toray Waterless Plate Processor leads the way in medium duty, high quality processing dedicated to the Toray Waterless Lithographic Plate. The TWP has been designed specifically to provide the optimum plate clean-out for consistent, reliable, high quality results, plate after plate.

'TORAY'

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