

# MAGIC® PRODUCT APPLICATIONS GUIDE

InteliCoat



Digital Imaging  
Substrates

## DS100 HYBRID INK JET DYE SUBLIMATION PAPER

MAGIC® DS100 HYBRID is an ink jet dye sublimation paper that results in high quality sublimation transfers to both rigid and textile substrates. This paper brings new technological advances in release properties that allows one substrate to be used for all applications. This paper prints a wide gamut of vibrant colors, enhances the release of ink during the sublimation process and presents value over current papers being used in the market today. Some of the key product features include minimal paper cockle, quick dry times, no outgassing, 95-100% ink release, and no blow

### PHYSICAL PROPERTIES

Caliper . . . . .	.50 mil
Basis Weight . . . . .	106 g/m <sup>2</sup>
Whiteness . . . . .	103
Optimum Printing Environment . . . . .	.70°F / 21°C (30-70% RH)
Recommended Ink Load . . . . .	250-275%

### PRINTING GUIDELINES

**Printing:** Image side is wound to the outside of the roll. Printing is performed in "mirror" image. Allow print to dry prior to transfer.

**Printer & Ink Compatibility:** Magic DS100 HYBRID paper has been tested and run successfully on most brands of ink jet printer systems equipped with dye sublimation inks. Roland, Mutoh, Epson, and Mimaki printers have all proven to provide excellent results with various dye sub ink manufacturers. It is always recommended to determine the compatibility of the paper for use on your printer and heat press equipment.

**Printer Settings:** A Heavy Coated Paper print mode is recommended for all printer brands and models. Do not oversaturate the paper. It will result in bleed and will not enhance transfer color. The image may look "washed out" prior to sublimation. Colors will intensify when transferred. Use ICC color profiles to optimize your particular printer/ink/RIP setup.

**Material Storage:** To protect unused material, it is recommended to store material in its original packaging, in the poly bag at 59-86°F / 15-30°C and 30-70% RH.

### SUBLIMATION GUIDELINES

**Sublimation Process:** Sublimation ink has the ability to convert from a solid to a gas without going through the liquid form. Sublimation key ingredients are heat, pressure, and dwell time. When the heating process is completed, the image on the paper has been fully transferred to the item and has become part of the surface. No surface protection is needed. During the sublimation process, the "pores" of the item open up and accept the ink/image. When the item is removed from the heat press, the pores close and the inks revert to a solid state resulting in a permanent, durable image that can not be rubbed or washed off. Magic DS100 HYBRID dye sub paper provides 95-100% transfer efficiency on a variety of heat transfer presses.

**Heat Press Conditions:** Sublimation conditions will vary depending on the heat transfer press being used. Internal testing found excellent results using 400°F and a 30-45 second dwell time at 40-50 psi pressure. It is recommended to determine optimal temperature, pressure, and dwell time conditions for your heat press.

**Compatible Sublimation Surfaces:** Surfaces for sublimation need to be specialty-coated or polymer-coated to accept the inks. Sublimation will not work on 100% cotton material. To achieve the best results, dye sublimation should be performed on white or light-colored surfaces. Magic DS100 HYBRID dye sub paper can be used on textiles, metals, plastics, ceramics and porcelains as long as they are poly-coated and have a surface that will accept the dye sublimation inks.

**Sublimation Applications:** Dye sublimation can be used in several applications. Most common applications include ceramic tiles, and coasters, as well as clothing and fabric items such as T-shirts, flags, tote bags, and mousepads.

### RECYCLE & DISPOSAL



paper

Disposal by recycling of paper is the preferred method. Where recycle markets do not exist, disposal by land fill or an approved incinerator is acceptable. See the Magic Recycle Technical Bulletin @ [www.magicinkjet.com](http://www.magicinkjet.com).

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For more information call 1-800-628-8604  
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\* Most updated version of this guide can be obtained on our website.

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