

# MAGIC® PRODUCTS APPLICATIONS GUIDE

## TSG-12



### POLYCARBONATE FILM FOR TRADE SHOW GRAPHICS

**MAGIC® TSG-12** is a 12 mil polycarbonate film specifically designed to be used in trade show graphic applications. When TSG-12 is combined with Magic® DMWVA10, an aggressive bond is formed, resulting in durable trade show graphics, even after being rolled and unrolled for transport. TSG-12 can be used in most thermal and water-based piezo wide format ink jet printers with both dye and pigmented inks. Images with maximum densities, vivid color, and reduced image fade with pigmented inks are significant benefits of the TSG-12 polycarbonate film.

#### PHYSICAL PROPERTIES

Caliper. . . . .	12 mil (306 microns)	% Opacity. . . . .	32%
60° Gloss level of print surface . . . .	2.5	Indoor Life Expectancy . . . . .	1 year+ (UV inks)
60° Gloss level of view surface. . . . .	8.5	Optimum Printing Environment. . . . .	70°F (20-70% RH)

#### APPLICATIONS GUIDELINES

**Printer and Ink Compatibility:** TSG-12 is compatible with most Hewlett-Packard®, Encad, ColorSpan® thermal printers and with some water-based piezo printers, with both dye and pigmented inks. Dry times will vary depending on printing environment and ink-type used.

**Printer Settings & Guidelines:** Print in reverse image “mirror image” on the non-textured side of the film and view through the polycarbonate film side. When loading the material, printer cutters should be removed or turned off, as the heavy gauge of the material may cause cutter and print head jams during the cutting process. To optimize print quality, printers should be set for highest print quality mode. Recommended settings include: (1) Hewlett-Packard DesignJet® 5000 series with dye inks is “Photo Imaging Gloss”; UV inks is “Heavy-weight coated paper” (2) Hewlett-Packard DesignJet® 2000/3000 series with dye ink is “Semi Gloss Photo”; UV ink is “Heavy Coated Paper”. Use 1440 dpi or photo modes in water-based piezo printer systems. The recommended maximum ink saturation levels are 250% on Encad, ColorSpan®, and HP2000/3000 series with UV inks, and 350% on HP2000/3000 series with dye inks, HP5000, and water-based piezo printers. Ink saturation limits can vary due to ink types, ink drop volume and humidity, so ink saturation levels should be optimized for specific printer, ink and software combinations. Due to the heavy gauge of the material, this product can feed through the printer at different rates causing print size to vary from print to print. TSG-12 print quality may not be acceptable with some printers/inks for backlit applications. Trade show graphics is the primary product application.

**Color Calibration:** ICC color profiles can be obtained for selected RIP, ink and printer combinations on the magicinkjet web page identified below. Profile solutions are continually being generated, so consult the web page for current availability.

**Light Stability:** Pigmented inks offer an image less subject to light fade.

**Material Handling:** After printing, the ink should be completely dried before handling printed material. The remaining portion of the unprinted material should be stored at 72° F (+/- 5°) and 30% to 70% relative humidity.

#### FINISHING RECOMMENDATIONS

**Mounting & Laminating:** See the *TSG-12 Tips & Tricks Technical Bulletin under the Technical Support menu on the magicinkjet website for additional information.* Prints should be completely dried before mounting. It is recommended to wait 24 hours before mounting to allow for adequate dry time. It is recommended to only use the Magic® DMWVA10 mounting film so pretest all other backers for compatibility. Applying the backer with minimal heat (90-110°F) will allow the adhesive to flow and will produce a more consistent bond. It is recommended not to roll laminated prints into smaller than a 12” diameter tube, as this can stress the lamination bond. Always roll with the polycarbonate film facing outward (vinyl facing in). The opposite wind applies too much stress on the bond and can result in delamination. Wait at least 4 hours before rolling or trimming laminated material. Adhesion to the backer becomes more aggressive with time. When trimming material, use a sharp blade and cut without an angle, as dull blades and angular cuts can stress the lamination interface causing edge delamination.

**Image protection:** Imaging is performed in reverse so that the image is protected by the white vinyl backer on one side and the polycarbonate on the other. Pigmented inks offer an image less subject to light fade.

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For more information, call 1-800-628-8604,  
or visit our website: [www.magicinkjet.com](http://www.magicinkjet.com)

\*Most updated version of this guide can be obtained on our website.

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