

# MAGIC® PRODUCT APPLICATIONS GUIDE

## DMBPC12

### UNIVERSAL POLYCARBONATE BACKPRINT FILM

MAGIC® DMBPC12 is a backprint polycarbonate film which may be used in the Canon iPF series, Hewlett-Packard DesignJet®, Encad NovaJet®, ColorSpan®, Epson Stylus series, and other water-based thermal and piezo printers. By reverse imaging on the matte surface, the polycarbonate surface protects the image while its texture naturally diffuses light and cuts glare. The stiffness of the polycarbonate base makes it easy to slide into display boxes or to make panels for rigid displays.

Intellicoat



Digital Imaging  
Substrates

### PHYSICAL PROPERTIES

Caliper . . . . .	.11.5 mil	
% Opacity . . . . .	.58 (+/-5)	*Product life is dependent on strength of light source and distance from light source.
Gloss of Film Side (view side) (60°) . . . . .	.11	
Whiteness (on white background) . . . . .	.54	
Optimum Printing Environment . . . . .	.70°F (30-70% RH)	
Life Expectancy as Backlit (dye) . . . . .	.3 months	
Flammability Rating (ASTM E84). . . . .	Class A	

### APPLICATION GUIDELINES

**Imaging:** The print side is the matte side and is wound to the outside of the roll. Images need to be reversed printed on the matte side.

**Printer and Ink Compatibility:** The material can be printed with most water-based thermal and piezo printers equipped with dye or pigment inks.

Using water-based pigments will usually yield good print quality, but expect lower transmitted and reflective ink densities than with most dye-based inks. Inks NOT recommended for use are Encad GX, Ilford Archiva, and ColorSpan EnduraChromme inks, because premature fading may occur.

**Printer Loading:** When loading DMBPC12, disable the printer cutter mechanism. Most printers cutters are not sharp enough to cut through the 12 mil film. When used in the HP750 series printer, material should only be sheet fed.

**Printer Settings:** To optimize print quality, printers should be set for highest print quality. The maximum ink saturation level for NovaJet and ColorSpan printers is 350%. To reduce the effects of the "star wheel marks" and to minimize bleed, the recommended maximum ink saturation level is 225% on the HP 2000 and 3000 series printers. The media selection is "Backlit" for the HP2000/3000 and "Photo Imaging Gloss" for HP 5000 series printers when using dye-based inks. "Backlit UV" setting can be used with the HP5000 UV printers. "Heavy Coated Paper" is the printer setting for the 750 series printers. "Super and "bi-direction" are the printer settings for water-based piezo wide format printers.

**Waterfastness:** Pigment inks have excellent water resistance when used in conjunction with DMBPC12. Dye-based inks have a moderate level of water resistance. Condensation in a light box can cause small amounts of ink bleed. Lamination with edge sealer is the best way to ensure complete waterfastness.

**Light Stability:** Pigment inks will offer greater light stability. For applications where dye inks are used, it is important to overlamine the imaged side shortly after imaging to prevent image fading.

**Material Handling:** Be sure print is completely dry prior to handling. Lamination is the best way to protect the image from scratches, ink fade, etc.

### INSTALLATION RECOMMENDATIONS

**Mounting:** It is recommended not to use the DMBPC12 with a white backer. If opacity is needed, use the Magic POS PRO+ products.

**Lamination:** Cold pressure-sensitive overlaminates are recommended. For additional lamination tips, download the film lamination technical bulletin.

**Image protection:** Print a mirror image of the graphic on the matte side of the product and view from the film side. This protects the inks imaged on the surface in the light box, exposing the durable polycarbonate film surface to any outside elements.

**Lighting:** To optimize image appearance, the image should be back illuminated, as the transmitted light yields the desired ink densities. Viewing with reflected light yields slightly lower ink saturation than transmitted light.