

MAGIC® PRODUCT APPLICATIONS GUIDE

DMVLA5 & DMVLA5RG

MATTE PRESSURE-SENSITIVE INK JET VINYL



DMVLA5(RG) is a white opaque, matte, calendered vinyl with a permanent pressure-sensitive adhesive. Excellent for printing flexible, durable signs and banners, DMVLA5 is intended for use in all Encad, ColorSpan®, Hewlett-Packard DesignJet®, Epson 9000 and water-based piezo wide format printers. DMVLA5RG is intended for use in the Raster Graphics Piezo Print™ 5000. Both products offer a broad color gamut and superior water-fastness with pigmented inks.

PHYSICAL PROPERTIES

Vinyl Type	Calendered	Opacity . . . . .	.93%	Adhesive	Permanent
Caliper of vinyl . . . . .	.3.5 mil (89um)	Whiteness . . . . .	.82		Solvent-Based
Caliper of Vinyl/Adhesive . . . . .	.5 mil (127 um)	Brightness . . . . .	.92	Adhesive Peel Force	
Total Caliper . . . . .	.13.5 mil (344 um)	Gloss (60°) . . . . .	.2.1	on Stainless Steel . . . . .	.3.5 #/in.
Basis Weight (w/liner) . . . . .	.339 g/m ² (9.9 oz/yd ²)	Flammability Classification	Class B**	Dimensional Stability . . . . .	.0.9%
Basis Weight (no/liner) . . . . .	.190 g/m ² (5.7 oz/yd ²)	Optimum Print Temp.	70°F (21 °C)	Outdoor Life Expectancy* . . . . .	.6 months
				Indoor Life Expectancy* . . . . .	.9 months

*Based on manufacturer's accelerated age testing using pigmented ink. Results may vary based on usage. **Based on ASTM E-84 Method.

APPLICATIONS GUIDELINES

Printer & Ink Compatibility: DMVLA5 can be printed on Hewlett-Packard DesignJet®, Encad NovaJet®/Pro/Proe, ColorSpan® Displaymaker, Epson 9000 and piezo water-based pigments. DMVLA5RG can be printed with Raster Graphics Piezo Print™ 5000 inks. **It is recommended to use pigmented inks for longer-lasting images.** Although dye-based inks provide a higher color gamut, ink fade can occur. Inks NOT recommended for use are Encad GX, Ilford® Archiva™ and ColorSpan® EnduraChrome inks, because premature fading is known to occur.

Outdoor and Indoor Use: This product is recommended for indoor and outdoor applications. It must be applied at minimum air and surface temperatures of 50°F. Once posted, the material can withstand temperatures of 0°F to 150°F.

Water Resistance & Surface Protection: To obtain a high degree of water resistance, use only pigmented ink. Lamination is not required. Dye-based inks will yield good color gamut, but with repeated exposure to water, bleeding may occur. Overlaminating dye-based ink will not eliminate image bleed, unless the material is completely sealed to a non-porous surface or encapsulated. If water migrates under the laminate, ink bleeding may occur. Let image dry 24 hours before exposing to moisture. Dirt and stains cannot be cleaned from the imaged surface. Excessive folding or creasing can damage the imaged surface. Laminating is recommended to protect the surface from dirt and abrasion.

Printing: Ink coverage of up to 250% is recommended. Excessive ink saturation can affect the waterfast properties of the material as well as color uniformity. To optimize print quality, printers should be set for highest print quality. HP2000/3000 series media selection should be "Heavy Coated Paper". For HP5000 series, use "Colorfast Vinyl" Productivity mode. Printer settings for the Raster Piezo Print 5000 are overlap: 25%, speed: 2X, Strikes: 2 and write direction: "Bi-direction."

Color Calibration: ICC color profiles can be obtained for selected RIP, ink and printer combinations on our web page given below. If the proper profile solutions is not available, periodically check the web page for the current availability as new profiles are being developed on an ongoing basis.

Material Handling & Storage: Once print is completed, roll imaged media onto a core until ready for posting. Folding of the material is not recommended. Unimaged material should be stored at 72°F (+/-5°) for no more than 6 months, to obtain maximum adhesion values. After use, the roll should be stored in its original packaging in the poly bag.

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IntelliCoat Technologies

For more information, call 1-800-628-8604, or
visit our website: www.magicinkjet.com

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

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FINISHING RECOMMENDATIONS

Recommended Application Surfaces: Stainless steel, aluminum, glass, ABS, polycarbonate, Plexiglas®, automobile enamel and standard mounting boards like Sintra®, Gatorfoam® and Foam-Core®. The product is designed for use on smooth, flat surfaces and should not be applied over corrugations or rivets. Textured surfaces and wood tend to promote poor adhesion. **Always pretest your specific substrate prior to actual application.**

Surface Preparation: Always ensure that the receiving substrate is thoroughly cleaned, free of dust, dirt or cleaner residues. Painted surfaces should be painted with latex paint containing no waxes or silicones. Metal and glass surfaces can be cleaned with standard glass cleaners. Poor surface conditions will cause adhesion loss or failure.

Application Paper (Premask): Use low tack application tapes. High tack tapes can cause slight coating removal. Application paper applied directly onto the imaged surface of the vinyl may cause slight yellowing of the coating. The premask by American Biltrite Inc. called TransferRite®, cause the least amount of yellowing. 3M tapes have been found to increase the yellowing effect.

Installation Techniques: Proper contact of the adhesive to mounting substrate is critical and maximum pressure should be used to install the vinyl. If insufficient pressure is used during the install, the edges of the vinyl can lift. When applying vinyl to mounting boards, it is recommended that a cold roll laminator be used to give adequate, even pressure during application. For installations by hand, use application tape and squeegee with adequate pressure. It is recommended that water not be used during the installation but if it is used, use minimal amounts. All water must be squeegeed out from under vinyl. If liquid soap is added to the water to increase the ease of installation, use only one drop per gallon of water. Soap must not contain moisturizer. Do not use heat guns to install vinyl. Material should not be stretched during installation. It is a calendared vinyl, and it will shrink back to original size, which might cause edges to lift or create gaps between panels.

Laminating: To give surface protection from dirt and abrasion, a vinyl pressure-sensitive overlamine is recommended. Heat activated laminates should not be used. The high temperatures needed to apply heat activated laminates can degrade the adhesive peel strength. Overlaminating one side with too much tension can cause the product to curl toward the laminated side and the edges to lift. DMFTP Fluorex® Transfer Protection, ultra-thin (3 micron) graffiti-resistant overlamine, is an alternative finishing solution. Let image dry for 24 hours before laminating.

Removal: The adhesive is very aggressive and removal may cause damage to indoor painted surfaces or drywall surface. To increase the ease of removal, gently heat the vinyl with a heat gun to soften the vinyl and adhesive. The longer DMVLA5 is applied, the more difficult the removal will be. Different surfaces will have different adhesion characteristics. Glass and stainless steel usually promote extremely high adhesion values and removal may be more difficult than with other surfaces. If during the removal, adhesive transfer happens, soapy warm water and aggressive rubbing with a cloth should remove adhesive. For surfaces with more difficult adhesive removal, isopropyl alcohol (a.k.a.- IPA or rubbing alcohol) can be used.

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