MAGICLEE® TECHNICAL BULLETIN

Magiclée

SURFACE PROTECTION

It is a safe practice to laminate inkjet graphics for outdoor or indoor extended use. The fact is that even today's most advanced inkjet inks, printed on the most sophisticated top-coated media, fall short of the fade and weathering resistance expected for extended use. There are many factors that affect the durability of an ink jet graphic over an extended period of time, such as: coating chemistry, substrate construction, strength of light exposure, type of light source, relative humidity, temperature, ink chemistry, material handling, and type of application. Overlamination adds value to the graphic and also slows product degradation over time.

TYPES OF SURFACE PROTECTION

HOT VS COLD OVERLAMINATES:

Hot laminates are almost always made of Polyester film due to its great heat stability. Cold laminates (pressure-sensitive) can be made up of PVC, Polyvinylfluoride, Polyester, Polycarbonate, or Polyolefin substrates. These materials vary in cost, flexibility, durability, and in their resistance to dirt, chemicals, and UV light.

The differences between heat-applied and pressure-sensitive laminates are: (1) Hot laminates are substantially less expensive than pressure-sensitives (50% less). Pressure-sensitive film has a release liner which contributes to the cost and it gets thrown away. Heat-activated films do not require a release liner (2) Heat-activated films require a high temperature to activate the adhesive (220ºF) which can cause blistering in printed images (3) Pressure-sensitive laminates have a larger selection (4) Pressure-sensitive laminates typically have more aggressive adhesives and provide more UV protection (5) Pressure-sensitive overlamination has a greater first-time success rate. It takes time to generate ink jet prints; you wouldn't want to make a mistake in the lamination process (6) Set-up time on the laminator is longer when using heat-activated laminates. More waste is produced for string-up.

LIQUID LAMINATES

Liquid laminates are typically clear Ultraviolet-Protective coatings, most commonly made in acrylic-type formulations. Liquid laminates can be water- or solvent-based systems that can be applied by brush, roller, or by aerosol. Liquid laminates are an inexpensive way to protect digital output from ultraviolet light, abrasion, chemicals, and water. Some of the most commonly used liquid laminates include: Clearstar Clearshield & Clearjet products (Clearstar Coatings), Superfrog Frog Juice (Far From Normal), and Bulldog Ultra™ D412 (Triangle Coatings). Liquid laminates come in various gloss levels. It is recommended to pretest your digital print with the liquid laminate for compatibility prior to use. Compatibility depends on the type of ink jet coating, ink chemistry, and substrate type. Page 2 of this document provides compatibility information on Magic® ink jet media.

WHICH LAMINATE TYPE DO I USE?

with pigmented inks

Type of Laminate	Durability	Trade Price	Ease of Application	Media Compatibility
PSA Laminate	High Level (3-5 years)	$0.50/sf	Moderately easy	All types of media
Liquid Laminate	Moderate level (1 year)	$0.10/sf	May be difficult (messy, solvent)	Need to pretest all media

USA
28 GAYLORD STREET
SOUTH HADLEY MA 01075-2894

InteliCoat 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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Below is compatibility test data on Magiclee® ink jet media. A bullet " • " indicates compatibility. Testing was performed with Clearshield, Clearjet, Frog Juice, Bulldog Ultra D412, and DMFTP. It is still recommended to pretest all liquid laminates prior to use. Test compatibility results can vary depending on application method (hand or liquid laminator), coat weight, ink type, ink saturation level, etc. For additional information on liquid laminates, contact the liquid laminate supplier:

	Phone Number	Website Address
Clearstar Coatings:	1-888-253-2778	www.clearstarcoatings.com
Superfrog Frog Juice:	1-800-877-1907	www.FAR-FROM-NORMAL.com
Bulldog Ultra:	1-800-895-8000	www.tricoat.com

COMPATIBILITY TEST RESULTS

Testing was performed with Clearstar Clearshield Type C and Clearjet A-2000 formulas. Clearstar Coatings Corp confirmed canvas compatibility results with Clearshield Type C, Clearjet A-2000, and Clearshield/ClearJet Fine Art formulas. Torino 20M has some difficultly when applying with a liquid laminator due to its heavy texture. Heavy coat weight is needed. Additional compatibility data from Clearstar is located on their website: www.clearstarcorp.com. FrogJuice and Bulldog compatibility testing was performed by InteliCoat.

Magiclee® Media	Clearstar ClearShield	Clearstar ClearJet	Frog Juice	Bulldog Ultra D412
Coated Paper				
Firenze132	•	•	•	•
Firenze170	•	•	•	•
Photobase Paper				
Siena 200L & 200G	NO	NO	•	•
Siena 250L & 250G	NO	NO	•	•
Fine Art Paper				
Verona 250 HD	•	•	NO	•
Verona 300 Rag	•	•	NO	•
Verona 285T	•	•	NO	•
Canvas				
Torino 17M	•	•	•	•
Torino 20M	•	•	•	•
Torino 21G	NO	•	•	•
Fabric				
FAB6	NO	•	•	•
FAB-TAC	NO	•	•	•
Wallcovering				
Mural Pro	•	•	•	•

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