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ARMOR APPEAL

Laminates Protect and Enhance by Kim Crowley

Laminates do more than lengthen the life of large format prints. Based on a wide variety of finishes, laminates shield graphics from glare and add design elements. Final installation also benefits when laminates are used. "Lamination is viewed as a requirement and no longer as a choice," states Matt Buckley, technical specialist, FDC Graphic Films, Inc.

Composition Systems Inc. (CSI), based in Falls Church, VA, uses laminates for its vehicle graphics, posters, and adhesive vinyl wall murals. "We typically recommend lamination when the image is displayed longer than a few days," notes Rob Harris, COO, CSI. "We view lamination as a cheap insurance policy

against damage." Harris estimates that at least 90 percent of CSI's photographic output and 85 percent of their adhesive vinyl output is laminated.

"All large format prints should utilize a laminate. It is an opportunity to add value to your print as well as increase revenue for your business," shares Brian Franks, director sales and marketing, Advanced Greig Laminator, Inc. (AGL).

Lamination adds an extra stream of revenue for the print provider, but it mainly serves to beautify and protect. "We don't generate a tremendous amount of profit when we laminate, but we normally sell it to our clients as peace of mind," says Harris.

Universal Protection

Many unavoidable elements and controllable hazards influence the longevity and polished look of printed graphics. "Laminates are the universal surface protection of digital media," says Martin Kugler, corporate communications manager, Hexis USA LLC.

Fingerprints discredit the look of printed graphics. In retail situations, graphics often need to be cleaned. Abrasions, marks, and scratches result from human hands and feet; dust, graffiti, road hazards, transport, and installation are other issues to consider.

UV light accelerates the aging of prints. "When a digital print is in a sunny location for an extended period

Above: Hexis showcased the company's PC30MD2 laminate on this Mini Cooper.



Left to right: Graphics for Jacadi Paris children's clothing store, based in NY, where created by Influence Graphics; a Mimaki JV3 solvent printer was used to print on block-out media and a Drytac laminator applied optically-clear adhesive laminate. Southwest Museum Services, based in Houston, TX, created graphics for the Reagan Ranch Center; graphics are laminated in LexJet 5-mil T-Flex thermal laminate.

of time, it is not uncommon to use a laminate," says Susie Mendelsohn, marketing, Triangle Digital INX Co. "However, the need for laminates is decreasing due to changes in ink fade resistance. Most inks once required a laminate, but today solvent inks provide up to three years of outdoor durability," she continues.

Despite this evolution, laminates are necessary in many locations. "The extent of UV protection offered by substrate laminates varies by product and temperature zone. Be sure to check with the manufacturer before extending warranties based on UV protection," cautions Ritchie Daize, international digital sales manager, Arlon, Inc.

LexJet Corporation's laminates feature UV inhibitors with PreLume technology. "PreLume technology visually enhances graphic output by providing a white point that is brighter, whiter, and lasts considerably longer than substrates whitened with typical optical brighteners," says Jeff Leto, product manager, LexJet.

Lance Hutt, global digital product manager, Avery Graphics believes laminates go beyond protecting graphics from common elements. Current laminates provide unique functions such as anti-graffiti features, water resistance, high-traffic zone protection, and UL approval for common floor graphics.

ADDING REVENUE: MEGAPRINT INC.



MegaPrint Inc. is a specialty large format printer located in Plymouth, NH. The 19 employee shop operates a 17,500 square foot facility designed specifically for wide format printing. The facility houses a full service finishing shop for mounting and laminating as well as a banner shop that produces banners up to eight feet by any length.

ADDING LAMINATION

MegaPrint primarily serves the trade show, retail, and photo markets. Customers in these markets laminate for a number of reasons. "For trade shows, everything should be laminated for better presentation. In retail, we usually recommend lamination unless the store's fixtures provide a nice presentation for paper prints. For photos, we use gloss laminate unless customers are concerned with glare, in which case we use matte or crystal laminate," explains Jay Buckley, president and owner, MegaPrint.

He estimates that half of MegaPrint's jobs are laminate, which adds a revenue of about two dollars per square foot to each job. The shop uses a 5-mil product from D&K Group, Inc. for standard gloss and matte lamination. They use Neschen Americas/SEAL Jet Guard Deep Crystal primarily as trade show laminate. The film is scratch resistant with a crystal textured satin finish.

MegaPrint owns General Binding Corporation's (GBC) Falcon laminators, a Ledco Inc. laminator, and a SEAL Image 400 laminator. "All of our lamination is hot applied so that we don't have trouble with delamination or tunneling," explains Buckley.

"One recent project involved cutouts of the presidential candidates for a magazine shoot during the NH primary," he says. Lamination provided the application with a polished look. "All were matte laminated and mounted on Gatorboard, then cut out and fitted with easel stands."

MegaPrint also produced trade show pop-up booth panels for scientific company HORIBA Jobin Yvon Inc. They laminated booth panels on a GBC laminator using SEAL Jet Guard Deep Crystal laminate on the front and 10-mil gloss laminate on the back.

LAMINATION TOOLS

MegaPrint doesn't experience specific challenges when applying laminates. "Generally, if you buy the right equipment and learn to use it properly, it runs well. We prefer hot roll equipment to heat shoe machines, finding they give us less trouble and laminate and mount simultaneously," says Buckley.

Having a specific laminator dedicated to each particular laminate saves the company time and money. "This allows us to have very low makeready costs, since we aren't switching materials all the time," says Buckley.

SUCCESS WITH LAMINATES

MegaPrint satisfies its customers with professional large format prints. An intelligent approach to workflow and attention to high-end materials aids in efficient lamination jobs.

Indoor and outdoor promotional applications aren't the only output that need protecting. Peter Spotto, sales manager, DreamScape, advises that wallcoverings receive a laminate coating to protect against stains and abrasion. "This is especially necessary for installations in high traffic areas—such as hallways, stores, and play areas—where there is an increased chance of damage to the surface."

Visibility Issues

Large format signage only succeeds in portraying a message if it is clearly visible. Certain conditions, such as lighting, influence the way a printed graphic is viewed. Targeted lamination controls glare from overhead or harsh lighting situations. "A high-glare lighting environment requires a luster or matte finish so the customer can see the message," shares Jeffrey Stadelman, graphic products technical marketing manager, MACtac Graphic Products.

"To avoid glare, a matte finish is common for interior graphics or locations where cameras will be found," says Tim Boxeth, marketing manager, 3M Graphics Market Center.

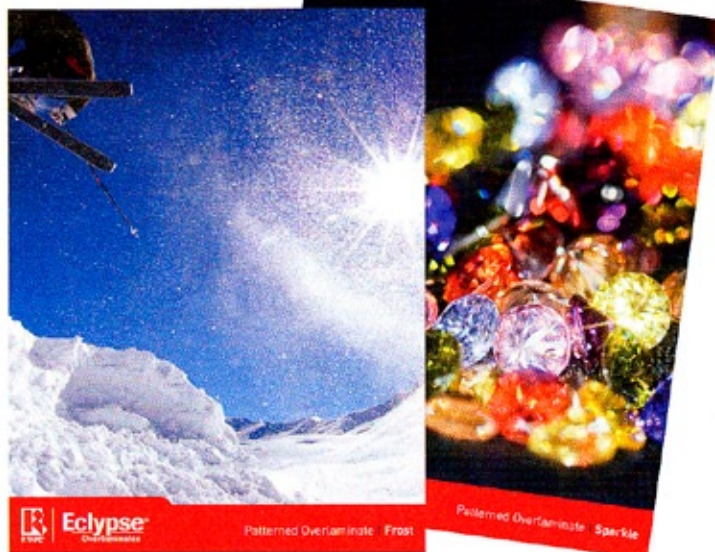
Window films, which feature holes to let light in, require an overlamine. Buckley notes that laminating is essential for view-through-window graphics and high-resolution images to maximize reflective properties.

Judy Bellah, public relations manager, Clear Focus Imaging, Inc., says laminates maintain visibility by preventing a window film's holes from filling with water. This could happen from rain or a window wash.

Enhance an Image

Laminates act as design elements. Depending on the finish, laminated graphics can look very realistic. "A gloss overlamine is very common for vehicle wraps to provide a wet-paint look," explains 3M's Boxeth. Gloss finishes attract attention and give color a vibrant statement.

New overlamine finishing options extend beyond classic matte and gloss finishes, adding a dramatic effect to printed graphics. For example, a frost coat can be used for a Winter ski resort ad or a glitter



R Tape's Eclipse Patterned Overlaminates are hot-embossed with a deep texture on the first surface of the overlaminate. Five finishes—Glitter, Carbon Fibre, Linen, Frost, and Diamond Plate—add dimension and texture.

laminates for a jewelry store poster. "For indoor use we use patterned laminates for added effect," says Troy Downey, owner, Auto Paint Equivalent (APE) Wraps of Coronado, CA. "All of these provide the client with added pop to elevate the prints to a higher level," he adds.

MACtac's Permacolor Enhancers series of overlaminating films include components like glass shards and metallic flakes built into the formula. Stadelman says Perma-

color Enhancers add an extra sparkle in vehicle wraps.

Drytac Corporation's Protac range of laminates includes 18 finishes. "The most artistic finishes resemble brushed steel, cracked ice, heavy textured canvas, antique leather, and linen," says Jerry Hill, VP of sales and marketing, Drytac.

Eclipse Patterned Overlaminates are new to R Tape Corporation's Eclipse overlami-

nate line. "Graphics are matched to one of five finishes that add dimension and texture. These finishes include Glitter, Carbon Fibre, Linen, Frost, and Diamond Plate," says John Porpora, director of marketing, R Tape.

3M also provides enhancer laminate options. "3M offers a metallic 'sparkle' overlaminate in limited market test right now called 3650-0559," notes Boxeth.

Pattern overlaminates are attractive, but not for every project. "These are special effects products. So we recommend using them for special applications. In a store environment, the eye-catching appeal stops consumers in their tracks. Your marketing message is noticed, read, and remembered," explains Jim Hingst, business development manager, R Tape.

Application Upsides and Pitfalls

In addition to damage protection, visibility, and attractiveness, laminates add thickness to graphics. "They help build a thicker, more manageable product to handle," says Robert Rundle, viscom market manager, Ritrama Inc.

The result is an easier installation. "Application is typically easier with the added thickness a laminate provides," says Buckley. "With the constant improvements in ink technology, more customers may begin to laminate less for the protection

value and more to change the finish or make application easier," he continues.

"Many applicators prefer—and charge lower application rates—for graphics that are substrate laminated since they have more body and are easier to handle," admits Daize. "Substrate laminates also eliminate the need to use transfer tape, which saves application time."

The application of a laminate can be challenging. "The combination of the correct pressure, tension, and temperature always makes it interesting. Laminating is as much an art form as actually creating the prints," admits CSI's Harris.

"Dust must be carefully cleaned-out," cautions Alejandro Scotti, production manager, Influence Graphics, a NY-based digital printer. "For cold laminates, it's better to use low heat to smooth out tiny bubbles. For graphics over eight feet long it is important to set the correct pressure settings so wrinkles don't appear at the ends."

Laminate Options

Various media requires specific laminates. In particular, a liquid laminate is better suited for canvas due to its texture, states Jim Manelski, president, Bulldog Digital Imaging Products, Inc. "All canvas prints produced on water-based printers need a liquid laminate to protect the print from moisture, abrasion, and fading. Canvas

A PEEK INSIDE: GOOD SAMARITAN HOSPITAL



Last year, the hospital put together a campaign to market and showcase its maternity and pediatric services. The project goes beyond traditional signs and offers "A Peek Inside" the hospital's new North Tower with window graphics.

Good Samaritan Hospital in San Jose, CA, is one of the first of five hospitals in the U.S. certified by the Joint Commission as a Primary Stroke Center. Opened in 1965 as a general acute care hospital, Good Samaritan is recognized for acute and tertiary services, including cardiology, oncology, neonatal ICU, behavioral health, and specialized surgery.

David Baxter and Steve Wolowitz of the Santa Cruz, CA, healthcare marketing firm The Network 360, supervised creative development for the project. Giant Impressions, a large and grand format digital color graphics company in San Jose, CA, produced the custom printed graphic panels.

The Peek Inside project is created from ClassicVue perforated window film and CurvaLam overlaminating film from Clear Focus Imaging, Inc. Viewed from outdoors, the see-through film offers a uniform billboard effect without obstructing natural light and exterior views from the inside. "What's really great is that visitors can see the gallery effect but families in the rooms still get the same light and views as always," says Pavna Sloan RN, director of women's services, Good Samaritan Hospital.

"Good Samaritan is the first hospital to use ClassicVue for such a uniquely appealing application. A lot of promotional campaigns using our products are very commercial, so it's great to see graphics that are warm and inviting," notes Judy Bellah, public relations manager, Clear Focus.

printed on solvent printers do not necessarily require a liquid laminate, but many print service providers (PSPs) still coat solvent output for added protection or to achieve a desired sheen," says Manelski.

Liquid laminates are applied with coaters, or by hand with sprayers or brushes. Options are available from companies like 3M, BullDog Digital, Clearstar LP, DreamScape, Drytac, Lumina Coatings International Inc., Optima International, and Triangle Digital.

Solid laminate solutions are made of vinyl, cast vinyl, orientated polypropylene (OPP), polyvinyl chloride (PVC), polyethylene terephthalate (PET), polycarbonate, polypropylene, or tedlar. These products are sold on a roll. Thermal laminates are applied using a laminator

that incorporates heat. Pressure-sensitive, or cold, laminates are applied with the aid of a heatless laminator.

Laminates in the solid category are available from companies such as 3M, AGL, Arlon, Avery, FDC Graphic Films, General Binding Corporation (GBC), Hexis, KAPCO Graphic Products, LexJet, MACTac, Neschen Americas/SEAL, Oracal USA, Quality Media and Laminating Solutions, and Ritrama.

Finding the proper laminate for a particular project depends on factors such as the duration a graphic is used, media and ink, budget, and how the print is displayed.

Cost is a major driver when choosing the best fit. "Film laminates range from 25 to 75 cents per square foot. Some liquids cost

just three cents per square foot," admits Hill.

"Shops sometimes utilize a liquid laminate because they don't have the equipment required to install a vinyl laminate," states David Grant, VP of marketing, Oracal. "Other times shops choose a liquid laminate to save material costs, especially for jobs not requiring extended durability."

Surface texture also determines the type of laminate required for a project. For example, floor graphics require a slip-resistant laminate. Meanwhile, "in the case of textured wallcoverings, it is not advisable to use a vinyl or thermal over a heavily textured surface," notes DreamScape's Spotto.

Read our *Laminates Roundup* online, at www.digitaloutput.net, for highlights on popular laminates available today.

The Future of Laminates

Manufacturers continue to improve laminates. Many advancements are slated in the next few years. With customers clamoring for sustainable solutions, laminates will go "green." Rundle of Ritrama expects to see this change.

Laminates save PSPs money in replacement prints. They aid by connoting a special feeling or message within a campaign and ensure output is visible. Laminates offer a variety of benefits that lead to more attractive, longer lasting large format graphics. **D**

COMPANIES MENTIONED See page 30 for more info.

INFO#	COMPANY	WEB SITE
100	3M Graphics Market Center	www.3mgraphics.com
101	Advanced Greig Laminator, Inc.	www.aglinc.com
102	Arlon, Inc.	www.arlon.com
103	Avery Graphics	www.averygraphics.com
104	BullDog Digital Imaging Products, Inc.	www.bulldogproducts.com
105	Clear Focus Imaging, Inc.	www.clearfocus.com
106	Clearstar LP	www.clearstarcorp.com
107	D&K Group, Inc.	www.dkgroup.com
108	DreamScape	www.dreamscapewalls.com
109	Drytac Corporation	www.drytac.com
110	FDC Graphic Films, Inc.	www.fdcfilms.com
111	GBC, an Acco Brands Co.	www.gbc.com
112	Hexis USA LLC	www.hexisgroup.com
113	KAPCO Graphic Products	www.kapco.com
114	Ledco Inc.	www.ledcoinc.com
115	LexJet Corporation	www.lexjet.com
116	Lumina Coatings International Inc.	www.luminacoatingsintl.com
117	MACTac Graphic Products	www.mactac.com
118	Mimaki USA, Inc.	www.mimakiusa.com
119	Neschen Americas/SEAL	www.neschenamericas.com
120	Optima International	www.optima-int.com
121	Oracal USA	www.oracal.com
122	Quality Media and Laminating Solutions	www.gmls.com
123	R Tape Corporation	www.rtape.com
124	Ritrama Inc.	www.ritrama.com
125	Triangle Digital INX Co.	www.triangleinx.com