



## QUICK REFERENCE GUIDE PRINTING, CUTTING & INSTALLATION INSTRUCTIONS

**VinylEfx® metalized vinyl media gives your design a distinctive look, attracts attention and creates favorable visual impressions. Your graphics are noticed, read and remembered. The rich look of these metallic vinyl films is perfect for signage, point-of-purchase displays, exhibits and store interiors.**

VinylEfx films are as easy to computer cut, weed and apply as intermediate vinyl. VinylEfx prints like vinyl, using a variety of screen print inks, thermal transfer systems, UV, solvent, eco-solvent and HP Latex printers. These films can also be steel rule die cut, thermal die cut, embossed and domed.

Properly processed and applied, VinylEfx Outdoor Durable Series films provide up to 3 years exterior life. Durability varies depending on environmental conditions, installation procedures, finishing and product suitability to the intended application.

For interior applications, VinylEfx Indoor Decorative Series provides indefinite indoor life. VinylEfx Indoor Decorative Series films are not warranted for exterior applications.

Edge sealing is necessary for applications, such as exposure to drastic weather, marine or winter craft applications, etc. An overlaminating film is required for printed graphics used in outdoor applications.

### CUTTING

VinylEfx cuts easily as most glossy, white calendared vinyls.

#### Plotter Cutting

For best cutting results, use a sharp 45° blade at slow cutting speeds with swivel type of cutters. Optimal cutting pressures vary depending on plotter type and blade sharpness. Typical pressure is between 135 grams and 165 grams.

#### Thermal Die Cutting

Cut at heat settings between 295° and 300° F (146 -149° C), and dwell times between

1/4 and 1/2 second. Thermal die cut decals have slightly raised edges, which are prone to edge lifting. Edge sealing provides additional protection.

### PRINTING

#### Screen Printing

VinylEfx metalized vinyl is printable using the following screen print inks:

- 3M 9700 UV inks
- Nazdar 3500 UV inks
- Sericol TMI II

#### Digital Printing

VinylEfx films are printable using a wide range of digital printing technologies. Water-based inks will not adhere properly. Refer to the VinylEfx technical information on the Nekoosa website before printing with HP Latex inks. Test, don't guess. Always test the vinyl with the ink system prior to production.

Print VinylEfx using a profile for White Intermediate High Gloss Vinyl at lower temperatures (35°-40° C). Using high printer temperature settings can cause VinylEfx films to expand and contract resulting in tunneling on the release liner. Settings may vary from one printer to another and from one ink system to another.

Humidity and temperature control are critical! Make sure VinylEfx is at room temperature (70° F/21° C) prior to printing. Colder ambient temperatures could extend ink curing time. Refer to ink manufacturer specifications.

Wiping down VinylEfx with a lightly moistened towel prior to printing helps remove dust and other contaminants.

### Important:

Heavy concentrations of ink, especially eco-solvent inks, will contribute to shrinking and edge curl of VinylEfx. Control your ink densities.

Allow at least a 1/4" (6 mm) border around any printed image to minimize shrinkage. You may need to increase the size of the border for images with heavy concentrations of ink. Never cut into the printed image.

### At a Glance:

- Apply only to clean, smooth non-porous surfaces.
- Only apply dry - never wet!
- Use ICC Printer Profile for High Gloss Vinyl at Low Temperature (35° - 40° C).
- Cut a 1/4" (6 mm) border around images printed with solvent or eco-solvent inks to help prevent edge curl.
- Use VinylEfx Outdoor Durable products for applications requiring more than six months exterior life. Outdoor durability will vary depending on finishing and exterior conditions. Use of a UV protective clear coat or PSA overlaminating films will extend outdoor durability.
- Edge sealing is recommended.
- Prior to Production: Test. Don't Guess!

### INSTALLATION & REMOVAL

VinylEfx films are suitable for general purpose signage applications on clean, smooth, non-porous, flat, vertical surfaces. VinylEfx will not conform well around compound curves, corrugations and rivets.

If the application surface has seams (such as truck panels), you must cut the vinyl along these seams. After cutting the film, use the edge of your squeegee to tuck the vinyl into the panel seam.

Some substrates are problematic and could cause adhesion problems. For information on special adhesive systems designed for these unique applications, call Nekoosa Customer Service at 1-800-826-4886.

Please note the following about substrates:

- VinylEfx will not adhere well to untreated low-energy surfaces, such as polyethylene and polypropylene.
- Some clear coats and automotive paints contain additives to repel dirt, grime, etc., which can cause adhesion problems.
- VinylEfx and other metalized films (reflectives & polyesters) are not recommended for application to untreated metal surfaces.

Dissimilarity of metals can result in galvanic corrosion.

- Know your paint system. Each paint formulation is different. Some contain additives, such as wax and silicone, which can cause adhesion problems.
- Make sure the paint systems is fully cured. If not, outgassing will occur and cause bubbles underneath the vinyl. Follow the paint manufacturer's instructions for curing times.

### SURFACE PREPARATION

Prior to the application of VinylEfx film, clean the substrate according to recommended industry standards. Failure to properly clean the application surface can result in film adhesion failure.

### APPLICATION TEMPERATURE RANGE

Optimal ambient temperature for the application of VinylEfx is 70° F (21° C). Pressure sensitive vinyl may resist sticking immediately to very cold surfaces. Do not apply wet. VinylEfx films must be applied dry. The warranty is voided for wet applications.

### USING APPLICATION TAPE & PREMASK

For plotter-cut VinylEfx lettering and graphics use a high tack application tape, such as RTape ApliTape™ 4075, or Conform® 4075RLA,

4076RLA or 4775RLA or Clear Choice® AT75.1. A mid-tack tape such as Clear Choice® AT60n works well for medium sized VinylEfx lettering.

For digitally printed and UV screen printed wide format graphics, use a low tack premask, such as 4000 or DigiMask. These products are designed to remove cleanly from the printed image and not damage the print.

After applying the application tape, turn the graphic over so the application tape is facing down. Peel the liner from the vinyl, rather than pulling the vinyl off of the liner.

VinylEfx films handle and can be applied just like intermediate vinyl. However, since the Outdoor Durable adhesive is not repositionable, using the "Hinge Method" during installation is a recommended option.

Firm squeegee pressure is important to create a bond to the substrate. Maintaining good squeegee pressure is also critical in forcing air from under the vinyl. Remove the application tape after final application by pulling it against itself at a 180° angle. After removing the application tape, always re-squeegee the entire graphic, especially the edges and overlaps to prevent edge lifting. To prevent scratching the VinylEfx film after removing the application tape, use a low-friction sleeve on your squeegee.

Edge sealing is recommended. Using a fine-tip brush, paint the edges of the VinylEfx film with a commercial-grade product.

## VinylEfx® | Digital and Screen Printable Metalized Vinyls

LATEX | ECO-SOLVENT | TRUE SOLVENT | THERMAL TRANSFER | UV WIDE FORMAT | SCREEN

		24" x 50 yd	48" x 50 yd	54" x 50 yd	24" x 10/250 yd	48" x 10/250 yd
		● Indoor Decorative		◆ Outdoor Durable		
Pattern	Color	Stocked Sizes			Make to Order	
Smooth	Silver	●◆	●◆	●	●◆	●◆
	Gold	●◆	●◆	●	●◆	●◆
	Rose Gold	●◆	●◆		●◆	●◆
Fine Brush	Silver	●◆	●◆	●	●◆	●◆
	Gold	◆	◆		◆	◆
	Rose Gold	●◆	●◆		●◆	●◆
Rainbow Brite Overall	Silver	●◆			●◆	
Large Engine Turn	Gold	◆			◆	
Diamond Plate	Silver	●◆	●◆		●◆	
Metal Flake	Silver	●	●		●	●
	Gold	●			●	
Florentine Leaf	Gold	●◆			●◆	

**Have questions? Need more information or samples? Call us at 800-826-4886**

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