

Processing Tips/Handling/Finishing for Roland DGA SOLJET Vinyls Instructional Bulletin #5.30 Dated: 10/14/02

1.0 Media / Printer Compatibility

- Specified Roland / Avery media will provide acceptable print image quality and dry times when used with the recommended Roland ink sets as noted in the chart below.
 1. In the “Print Head” column, a P notes Piezo Print Heads.
 2. In the “Ink Type” column, an S notes SOLJET inks.

Note: The following information is based upon tests believed to be reliable. This information is given without guaranty and does not constitute a warranty.

The purchaser should independently determine, prior to use, the suitability of the material for his/her specific purpose.

1.1 Roland SOLJET Vinyl

Manufacturer	Model	Width (in)	Print Head	Ink Type	Economy Calendered Vinyl	Luster Calendered Vinyl	Premium Cast Vinyl
Roland	SC-500/540	54”	P	S	YES	YES	YES
	SJ-500/600/540/740	54”/64”/74”	P	S	YES	YES	YES

2.0 Printing and Processing Tips

- When using a new lot of material, run a test print to make sure ink deposition and color are correct. Be sure to use the latest ICC color profiles for the RIP software; these are available on Roland’s website. These profiles will help avoid excessive ink deposits, which can cause print degradation in addition to effecting print dry time.
- As the material nears the core, check to see that the end is free from the core. If the end of the roll is taped to the core, cut the material loose from the tape. This will prevent damage to the print and the equipment.
- For some indoor and long-term outdoor use, a clear overlamine film is recommended for Roland SCM vinyl to provide chemical and abrasion resistance and additional UV fade resistance. Allow at least 30-45 minutes drying time between printing and applying the overlamine film. Be sure the printed ink is dry to the touch before laminating. Drying time may need to be extended in cooler temperatures and high humidity conditions. If necessary, allow the print to dry for up to 24 hours before handling or laminating.
- The printer and laminator should both be operated in a temperature and humidity controlled environment, ideally at 72° F (22° C) and 50% RH.
- Before laminating, allow the printed graphic to acclimate in the laminator area. This will help to prevent moisture curl and tunneling in the finished print.
- Prints can be blunt cut without an edge trim to seal the graphics, however an edge seal is desirable for additional print protection. To edge seal a print, the overlamine film should be trimmed to provide 0.50-0.75 in. (12.8-19.0 mm) of material beyond each edge of the graphic. NOTE: See Section 2.1 of this instructional bulletin for overlaminating instructions.
- For best results, apply the overlamine film using a motor-driven squeeze roll laminator. Heat is not required or recommended when laminating with Roland/Avery Dennison pressure-sensitive digital

overlaminates. Follow the laminator manufacturer's instructions for proper set-up and use of the laminator.

2.1 Overlaminating Instructions

- To laminate a single print, cut a length of overlamine film to properly fit the graphic (including necessary overlap).
- Feed the leading edge of the overlamine (still on the liner, liner side down) into the laminator. Stop the laminator once the leading edge has passed through the nip.
- Split the overlamine film away from the liner, draping the overlamine film over the top laminating roll.
- Place the printed graphic on the overlamine liner with the printed side facing the adhesive side of the overlamine film. Take care to align the graphic to make sure that at least 0.50-0.75 in. (12.8- 19.0 mm) of overlamine film extends beyond each edge to seal the edges of the print after application.
- Start the laminator and run the graphic completely through the nip.
- Stop the laminator and trim the overlaminated graphic to size.

2.2 Application of PSA

- To apply an overlaminated print to a surface without the use of a roll laminator, a low-tack premask (ie transfer tape), such as American Bilrite 6760, should be applied to the print. A premask will allow easier print handling, and will protect the print from scratching, wrinkling, or stretching before and during application. Always be sure to remove the liner from both the overlamine film and the graphic during application.
- Do not use premask on unlaminated images until the images are fully dried or cured or ink transfer may occur, which could ruin the image. After the image is fully cured, use a very low-tack premask such as American Bilrite 6760. It is recommended that unlaminated graphics with premask be installed within 48 hours of premasking to assure a clean release of the premask.
- On laminated prints, the use of a decal application squeegee is required to assure good adhesion; a low-friction sleeve can be used over the squeegee after removing the premask. Always re-squeegee the print after removing the premask, paying particular attention to the edges of the print and overlamine film. Using a squeegee on unlaminated prints is not recommended. NOTE: Use of an Air Release Tool to remove air bubbles when applying an overlaminated graphic is not recommended. The air release hole may allow water to penetrate the overlamine causing a potential loss of adhesion between the printed surface and the overlamine.

2.3 Application of Non PSA

- It is recommended that a transfer tape adhesive be applied to the non PSA products then use a roll laminator to install the printed graphics onto a surface.

3.0 Handling and Storage

- When handling Roland SCM products, it is recommended that cotton gloves be worn to prevent fingerprints or other contamination. These products are sensitive to pressure, moisture, and oils from the skin. When mounting and unmounting rolls, handle the rolls by the ends to prevent damage.
- Recommended storage and handling conditions for these Roland products is 72° F (22° C) and 50% RH; however, the materials can be safely stored within the range of 75±15° F (24±8° C) and 55±25% RH. Storage or handling of materials outside of these conditions can cause curl issues, poor print quality, and other problems. NOTE: Always store unprinted products in plastic wrap or bags before and after printing.

- After storage, always condition the rolls to the optimum operating environment of 72° F (22° C) and 50% RH before printing.

4.0 Finishing

- When finishing and packaging graphics, maintain the work area to keep it as clean as possible. Products should not be handled near likely sources of contamination, such as sawing, grinding, oil or paint spraying, etc. Avoid handling products in areas where wide swings in humidity may occur. Use clear vinyl curtains to surround the handling area to better control the environment. Air filtration and web vacuum equipment will help prevent dust or dirt from being trapped in a finished roll.
- If material is to be trimmed to width on a slitter, always check the knives to make sure they are sharp and properly adjusted to provide a clean cut with minimal dust generation.
- Use smooth finish cores, seamless if possible, to minimize spiral core impressions in the wraps nearest the core.
- To start a new core, it is best not to tape the material to the core. This allows the end of the roll to freely release from the core in the printer. If tape must be used to secure the material to the core, use a single strip of thin, low tack tape at the center to secure the material to the core.
- When winding of a roll is finished, wrap the roll with a band of paper, and secure the band with a strip of tape (tape the paper band to itself). Do not allow tape to contact the product as a print defect may result in the area where the tape was placed. Avoid producing rolls that contain a splice.
- When finishing, inspect the material for possible defects (contamination, cuts, core impressions, edge damage, etc.).
- Place rolls in plastic bags as quickly as possible after finishing to prevent possible contamination or moisture damage. Close the end of the bag with a reusable closure.
- Use a box design that allows a safe clearance between the roll and the sides of the box.
- If additional items are to be inserted in the box (instruction sheets, squeegees, gloves, etc.), be sure they are placed in the box in such a way as to not damage the roll.