

Transit Advertising Product Line Technical Guide and Application Instructions

General Information:

This guide provides information to help with the selection, printing and installation of FLEXcon products that are recommended for the use in transit applications.

Recommended Products:

Application:

FLEXcon® Bus & Train Wraps:

- Base Film:
 - [BUSart™ V 400 F White A-69 90 PFW BA](#)
- Overlamine:
 - [BUSart™ OV5020L](#) - 3.5 Mil Luster Vinyl
 - [BUSart™ OV5040C](#) - 3.5 Mil Clear Vinyl

FLEXcon® Bus Posters (King/Queen/Tail):

- Base Film:
 - [BUSmark® 5800](#) - 3.4 Mil White Opaque Vinyl
 - [BUSmark® 5820](#) - 3.4 Mil White Opaque Vinyl
 - Topcoated - Conventional Offset

FLEXcon® Bus & Train Windows:

- Base Film:
 - [STSWBF2](#) - 8 Mil 60/40 Perforated Vinyl
- Overlamine:
 - [BUSart™ OV5055](#) - 2 Mil Clear Cast

Printability:

- UV and solvent screen inks
- UV and solvent inkjet
- HP Latex inks
- UV and conventional offset inks with appropriate FLEXcon primer (topcoat)

For any specific print inquiry, please contact your FLEXcon Technical Service Representative.

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UV Cured Inks:

Suggest using flexible UV ink. Please review available flexible inks with your ink supplier.

1. Allow for post cure before die cutting or contour cutting. Certain UV inks will continue to (post) cure after the initial cure. The ink's formulation specific to bond, durability and chemical resistance will continue to build and develop after the initial cure. Please be aware that some darker and opaque colors are more difficult to cure.
2. Watch for over-cured ink, as it will be brittle and chip and crack along the die-cut edge. Please check for bulb wattage, line speed, and flexibility of your ink.
3. Suggest leaving an unprinted border for contour-cut decals.
4. Best packaging method is layflat sheets; however, size of graphic may dictate tubing. Suggest winding printed side out onto a 3"+ core to prevent tunneling.
5. Rolls should be stored at a minimum temperature of 50°F (10°C) and 50% relative humidity before installation.

Solvent Inks:

This product is printable on all solvent inkjet printers with the following cautions:

1. Suggest leaving an unprinted border for contour-cut decals.
2. Be sure all solvents are completely dried out of film before die cutting or contour cutting. Do not wrap/roll film until all solvents have been completely dried. Refer to solvent dryness test:
 - o Place several printed sheets face to face under a 12" stack of media or under a weight of 2 pounds per square inch.
 - o After 10 minutes, remove the sheets and check for blocking or surface impressions. If blocking or surface impressions are noted, either increase the temperature or decrease the line speed, as additional drying is needed. Retest.
 - o Residual solvents left in the media will certainly cause application failure. The film will lose stability and become very elastic. The adhesive may also build in strength becoming more permanent than removable.
 - o Wind print side out onto a minimum of a 3" core to prevent tunneling.
 - o Rolls should be stored at a minimum temperature of 50°F (10°C) and 50% relative humidity before installation.

Latex Inks:

- Print technology involves high heat 212°F+ (100°C+).
- Heat can distort film causing wrinkling.
- Some media may not be compatible - test for suitability.
- Reference ICC Profiles on www.FLEXcon.com
- We offer wide web sample rolls of FLEXcon approved media for suitability testing.

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Application Surface:

- Prior to application, the surface(s) must be clean, dry, free of oils, waxes, surface treatments, dirt, dust, and cleaning compounds.
- Cleaners that contain oils, waxes, etc. should be avoided as they can inhibit good film adhesion.
- The surface should be completely dry before graphics are installed. Water can get trapped in seams, rivets, corrugations and any moisture that gets trapped underneath the film can result in adhesion failure.

Vehicle Inspection:

This information is intended as guidance only. We recommend that all surfaces be tested for compatibility and removability. Factors such as the smoothness and cleanliness of the surface, as well as print, process and installation method may impact the adhesion and success of the application.

- All vehicles should be inspected prior to the application of graphics.
- Soundness of paint should be tested before installing graphics, results should be documented. A quick paint test can be done with a strong adhesive, something as simple as duct tape applied for 30 seconds for example.
- Integrity of the paint should be evaluated and graphics should not be applied to areas with chipped paint, rust, dents, etc.
- Paint scratches deep enough to expose primer or the parts actual surface (metal or plastic) should be repaired at least 48 hours, preferably 72 hours prior to installation.
- The BUSart™ and BUSmark® products will not damage paint on sound OEM or repainted bus surfaces.
- Sound paint is defined as possessing a 20 lb. per inch minimum peel bond between the paint and paint-receptive surface.

Environmental Conditions/ Removability:

- Environmental conditions such as heat, humidity, condensation, air conditioning, exposure to chemicals and abrasion etc. can impact the installation, application life, and removability of the graphic.
- The BUSart™ and BUSmark® products are designed to adhere and remove cleanly for up to one year from most smooth OEM surfaces.

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Installation: *Please note: the below information provides basic information on installation. Professional installers can be hired to ensure proper application of finished graphics. Contact the Professional Decal Application Alliance for information on member installers and services by visiting www.sgia.org/pdaa/.*

Installation tips for bus & train wraps and bus posters:

- The minimum temperature is 50°F (10°C) with 50% relative humidity.
- Position the graphic at the best starting point. Tape can be used to hold the material in place.
- Partially remove the liner to start adhering the graphic to the vehicle surface.
- Be careful not to stretch the graphic, as films have memory and when stretched, will ultimately relax, causing lifting and failure.
- Using a squeegee, lightly squeegee the center top of the exposed adhesive area of the graphic, working the middle section of the graphic first. Use firm, even strokes as you work your way from the center to either side. Continue to slowly remove the paper liner, while squeegeeing horizontally with overlapping strokes, working from top to bottom and from center to sides. Be sure to squeegee the entire graphic surface to ensure adequate adhesion.
- The vehicle temperature should be kept above 50°F for at least 12 hours after the graphics have been installed.

Installation tips for bus & train windows:

- Please refer to [FLEXcon's Window Graphics Installation Guide](#)

Flammability: • For more information, call Product Branding's Technical Service line at: (508) 885-1519.

~ The typical performance data and recommendations for using FLEXcon products shall be used only as a guide. All purchasers of FLEXcon products shall be responsible for independently determining the suitability of the material for the purpose of its intended use. ~

Vehicle Cleaning Recommendations

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- The general cleaner recommendation is for a pH neutral detergent solution.
- A mild anionic surfactant that suds well would be the best choice.
- Water jets should be kept away from close contact, suggest no closer than 10 inches
- Pressure should not be very high, suggest between a few hundred psi to maybe 1000 psi.
- Do not use solvents.
- Do not use cleaning products that contain degreasers. Most heavy duty degreasers are made from hydrocarbon solvents such as kerosene and xylene.
- Contact-less vehicle washing is recommended.
- If brushes are used in the vehicle washing process, use soft bristle brushes.
- Do not use “flapping cloth” contact washing as the force could lift the graphics.
- Room temperature water is best for cleaning.

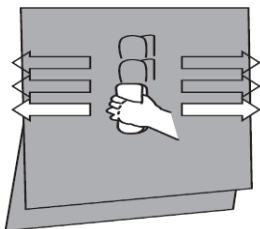
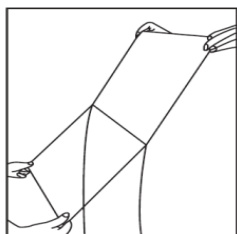
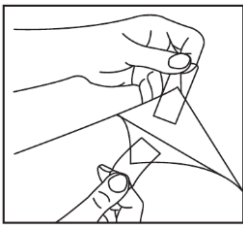
This information is intended as guidance only. We recommend that all surfaces be tested for compatibility and removability. Factors such as condition and cleanliness of the surface, as well as print, process and heat installation method may impact the adhesion and success of the application.

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Installation

Please note: the below information provides basic information on installation. Professional installers can be hired to ensure proper application of finished graphics. Contact the Professional Decal Application Alliance for information on member installers and services by visiting www.sgja.org/pdaa/.



- Printed graphic should be removed from its packaging, allowed to lay flat and acclimate to the room environment prior to installation.
- The minimum installation temperature is XX°F (XX°C) with % relative humidity.
- Make sure your graphic is centered properly. Use tape to hold the top edges
- Bend back approximately two inches of the paper liner from the top portion of the graphic and proceed to take the liner off. Use slight pressure to adhere the graphic to the wall and keep it in place.
- Be careful not to stretch the graphic, as films have memory and when stretched, will ultimately relax, causing lifting and failure.
- Apply heat to the fixed graphic from top to bottom. Let air move to the sides of the graphic
- A hot air professional gun is required for all textured surfaces.
- The product temperature should not exceed 250 F for more than 5 seconds.
- The heat gun can be set up in between 550 F and 950 F. Limit exposure to 10 seconds. Do not place this tool directly onto the surface
- A 2.5" minimum gap in between the film and heat gun is required. It varies depending on heat settings and air flow (accessories). Once softening occurs remove heat gun from location.
- Use a soft roller for substrate conformability to the surface. This can be done seconds after heating. Do not do this step immediately if the film melted.
- Do not use a squeegee. Film rupture can occurred
- Elongation occurs with heat. Do not elongate more than 200%
- Do not use heat on the base laminate only. Heat will only be effective on the two-part system

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Environmental Conditions/ Removability

- Environmental conditions such as heat, humidity, condensation, air conditioning, exposure to chemicals and abrasion etc. can impact the installation, application life, and removability of the graphic.
- Carefully pick at the top portion of the graphic getting the fingernail under the adhesive -- working your fingers under the adhesive, use a 45-90 degree angle and carefully, steadily, slowly remove the graphic from the top working your way down to the bottom.
- If original liner has been saved, you can reapply the graphic to the liner.

Flammability

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