



TECHNICAL BULLETIN 5.02

Application of Vinyl Graphic Products to Krystal Kote™ Metal

This bulletin details specific surface preparation and application instructions of vinyl graphic products onto Krystal Kote™ metal. Applications will be successful if the instructions are followed completely.

STORAGE of VINYL GRAPHIC PRODUCTS:

- Place vinyl graphic products lying flat in a clean storage area, free from excessive moisture and direct sunlight.
- Maintain ambient temperatures between the ranges of 65° - 100°F (18° - 37°C).

SURFACE PREPARATION FOR VINYL GRAPHIC PRODUCTS:

All surfaces are considered contaminated until properly cleaned. Thus, all surfaces MUST be cleaned prior to any application of vinyl graphic products. See the following steps:

1. Saturate a clean paper towel with a solvent approved by local EPA regulations and wipe the surface to remove any contaminants such as silicone, chalk or adhesives.
2. Dry the surface with a lint free paper towel before the solvent evaporates.
3. Spray the surface with BETCO® CitruSolv degreaser; follow immediately to dry the surface with clean dry towel. This should remove any residue remaining from the cleaning solvent.
4. Caution: An application surface that has been cleaned thoroughly can still provide poor adhesion in the lower areas of the textured Krystal Kote surface due to liquid retention caused by capillary action. This problem can be overcome by using a heat gun to dry the surface. Note: To locate a local distributor for BETCO® CitruSolv call 888-462-3826.

GENERAL REQUIREMENTS FOR APPLICATION:

Tools

The following tools are recommended for use and available from Sharpline by calling toll-free 1-800-888-4888.

- Felt Block Application Squeegee P/N 0882-55
- Rivet Brush P/N 381-55
- 3M Gold Squeegee P/N 0881-55
- Snappy Knife P/N 077-55
- Heat Gun P/N 9751-55
- Easy-On P/N 00661-55

Temperature

- Apply vinyl graphic products when the air and application surface temperatures are above 50°F and below 100°F.
- Surfaces may be mechanically heated when air and application surface temperatures are below the minimum requirements. This may be accomplished by a portable heater, heat lamps, hot water or steam. If hot water or steam is used, the surface must be dried thoroughly before application.

Key Points

- Before beginning application, insure the surface was properly cleaned as previously outlined
- Check that air and surface temperatures exceed the minimum requirements.
- Use firm pressure with squeegee, felt block and/or rivet brushes.
- Use overlapping strokes.
- Remove the application masking at a 180° angle.
- Re-squeegee entire graphic after removal of application masking.
- Make sure hands are clean.

APPLICATION SEQUENCE FOR VINYL GRAPHIC PRODUCTS:

1. Position Vinyl Graphic

It is recommended that the vinyl graphic be positioned so that the top edge of the graphic is on a flat surface and not on a corrugation.

As an aid for aligning and registering the graphic on the surface prior to application, make register marks on the side edge of the surface with a lead pencil, a marking pen, or small pieces of masking tape.

2. Remove Liner

Before application, lay the vinyl graphic against the side of the unit or on a clean flat surface. Remove the liner by sharply flicking the graphic edge toward the face of the graphic with the ball of the thumb or a fingernail. A small bend at a corner or edge will cause the liner to separate from the graphic. Pull the liner away in a continuous motion at a 180° angle. If liner is back slit, bend at slit and remove.

Note: Always remove the liner from the vinyl graphic rather than the vinyl graphic from the liner.

3. Tack Vinyl Graphic

Align vinyl graphic to register marks and tack it to the surface with thumb pressure at upper corners. For large graphics, use one or more additional tack points along top edge.

Using an application tool (felt squeegee or rivet brush), begin application at the vertical center of the vinyl graphic and apply all the way to one edge. Then return to center with overlapping strokes and repeat the procedure applying to the opposite edge.

4. Bead Upper Valley

Bead the graphic with a continuous motion into the upper valley to the right and left using an application tool.

5. Release Tack Points

Release tack points and any other points where pre-adhesion may have occurred.

6. Apply Along Top Corrugation

Return to center and with a continuous motion; apply the graphic to the top of the corrugation using the application tool.

7. Apply Along Corrugation Crown

Return to the center and with a solid continuous motion; apply the graphic to the crown using the application tool.

8. Apply to Corrugation Bottom

Return to the center and with a continuous motion; press the graphic against the bottom corrugation and into the lower valley using an application tool.

This step will conform the graphic around the bottom corrugation, reducing the amount of graphic stretching and wrinkling. Pressure from thumb application alone is not sufficient to obtain good adhesion of the graphic to the Krystal Kote surface; therefore, the next step is necessary to obtain proper adhesion in the corners of the valleys.

9. Re-squeegee Valley Corners

Return to the center and with a continuous motion; bead the graphic into the lower valley corner using the edge of a gold application squeegee.

Repeat steps 5 through 9 until entire graphic is applied.

10. Remove Application Masking

Mist application masking with an Easy-On™ and water solution; allow this to soak for a minimum of two minutes. This will release the bond between the application masking and the face of the vinyl graphic.

Remove application masking from the face of the vinyl graphic by pulling masking back upon itself always at a 180° angle.

11. Re-squeegee Vinyl Graphic

When the entire graphic has been applied, re-squeegee all lower valley corners using the edge of a gold squeegee.

12. Remove Entrapped Air

Run finger along top and bottom of corrugation to detect trapped air. Also, inspect the graphic in the flat areas for air bubbles. To eliminate these bubbles, puncture the graphic at one end of the bubble with an air release tool and press out entrapped air with thumb moving towards the puncture.