



## panoRama Green

### Handling, Installation, and Removal Recommendations

*\*Information is based on our knowledge and experience. Not all aspects which should be considered for application will be explained. Specialized and occupational knowledge and competence of a professional sign maker are presupposed. Due to the diversity of influencing factors during application and use, we strongly recommend situational tests of our products by customers who wish to use the material for special applications. No legal binding warranty of certain qualities can be derived from our information.*

**panoRama Green** is a 60/40 perforated, self-adhesive, PVC-free window film specially developed for long term applications of up to 5 years. The film is suitable for flat to slightly curved glass surfaces without significantly impairing the view from inside to outside.

### BASIC ADVICE

#### **\*SPECIAL HANDLING\***

**panoRama Green** is a PET film versus the more common PVC-based perforated films on the market today. While PET film offers the great advantage of a longer exterior durability, greater care during production is required. To prevent tunneling or material pulling away from the liner, flatbed printing is preferred. If not available, it is highly recommended that material be fed directly without additional webbing. The material is not as pliable as the liner and the more "bends" introduced through webbing rollers, the greater risk the material may tunnel, which may lead to head-strikes.

#### **PRINTING**

**panoRama Green** is compatible with solvent, eco-solvent, UV-curable, latex, offset and screen print ink.

#### **Latex Printing**

Set the print temperature to 90 - 95 °C. Make sure that the vacuum is switched to the lowest level of the machine or even completely off. If too much tension is applied to the liner, it may easily become detached. If this is the case, simply push the material 8" – 12" into the machine manually. Do not allow it to load automatically. This prevents the material from getting stuck in the printer.

#### **Drying time**

Store printed **panoRama Green** so the ink can dry best and any solvents can evaporate. It is highly recommended to store prints flat and open for at least 24 hours or *loosely rolled* for 48 hours. After that the print is ready for the lamination process. Latex prints have a general processing guideline of drying for foils. Please reference the HP guidelines for Latex printers.

#### **LAMINATING**

**panoRama Cast** optically clear overlaminates from Continental Grafix USA or an alternative pressure-sensitive cast or PET overlaminate is recommended. The quality of the laminator will have an impact on the result. The tension on the perforated film and on the laminate must always be regular and identical. Through experience, we find that many problems with lamination (tunneling, etc.) are due to poor calibration of the laminator. We recommend a light pressure and a slow lamination mode. After lamination, we recommend waiting 24 hours before applying to the window.



## PACKAGING AND TRANSPORTATION

To avoid tunneling after printing/laminating and related problems during application we recommend the following:

- Always wind roll with printed side facing out.
- Do not wind the roll too tightly. Always try to wind it with as much diameter as possible (at least 10" diameter).
- Avoid prolonged exposure to cold temperatures prior to installation. DO NOT store panoRama perforated window films in a cold vehicle overnight or for long periods of time in freezing temperatures prior to installation. Material may become brittle and difficult to apply. Keep material warm (above +50°F/+10°C) until material will be applied.

## SURFACE PREPARATION

### Cleaning

**panoRama Green** is suitable for flat or slightly curved glass surfaces. Thoroughly clean with soap and water only. The window must be completely free of grease and dust. After cleaning, dry the window completely with brown industrial paper or other a lint-free cloth, paying special attention to the corners and edges.

### Temperature

The application temperature must be at least +10°C (50°F) and max. +32°C (90°F). These values relate to the outside temperature as well as to temperature on the surface itself on which the window film will be mounted. For optimum tack on the subsurface, we recommend that the window film shall be stored at the same application temperature for a few hours prior to the application process.

## APPLICATION

**panoRama Green** should only be applied in dry conditions, using dry application method. Due to the natural expansion and contraction of glass, it is very important to leave a gap of at least 3-5 mm (1/8" - 1/4") between the edge of the window and the graphic. Do not apply the film to the window seal or frame. Application to the window seal or frame may cause panoRama products to detach from the window.

## EDGE PROTECTION AND SEALING

It is especially important to edge seal **panoRama Green**. To prevent edge curling or lifting, we strongly recommend using one of the following methods.

- ✓ Apply optically clear edge seal tape, strips of optically clear laminate, or liquid edge seal along all edges.
- ✓ For experienced installers, it is possible to apply a laminate film after the window film is installed. Trim the graphic 1/2" back from the window frame. Over-size the laminate, so that it goes beyond the edge of the graphic by at least 1/4" on all edges.

## Installation

1. Lift the upper edge of the liner and fold back approximate 8-16 cm (3"-5"), depending on the size of the graphics.
2. Carefully position the graphic so that it is properly aligned on all sides, then press corners in place using light pressure.
3. Using your hand or a soft plastic squeegee, lightly press the film in place.
4. Working from the top of the graphic to the bottom, continue by peeling away more of the liner and applying light pressure to the graphic. Continue in this manner until the liner is completely removed and the window graphic is in place.
5. Squeegee the film from the center and work outward in all directions with very firm pressure.



6. Using a utility knife, carefully trim away any unneeded portion of the graphic.
7. Be sure to squeegee the edges firmly and to seal the edges as recommended above.
8. If you are installing more than one panel, we recommend butt seaming the panels. Overlap seams are less attractive and more likely to fail. All seams should be sealed with a strip of laminate, edge seal tape, or liquid edge sealer.
9. Under certain conditions (weather, application temperature and/or lack of time between printing/laminating and application), you may see the appearance of bubbles after application if laminate was applied. The most likely cause is the escape of solvents. Most such appearances will disappear in most cases during a few days and can be considered as normal. DO NOT, under any circumstances, attempt to lance these bubbles with a knife or a needle!

## REMOVAL

Glass is one of the easiest substrates to work with. Removing **panoRama Green** should not be a difficult task, however extended exposure may increase its tack and potential of adhesive residue. If working with older films please attempt to remove it at once in one piece.

1. Please note that a *minimum* temperature of +50°F (+10°C) is highly recommended for removing **panoRama Green**. This temperature is the minimum for the film and for the window for an easy removal.
2. Lift a corner of the graphic and slowly pull at an angle of approximately 45° to 75°. Over 90° the adhesive is more likely to leave residue behind on the glass.
3. In the rare case of adhesive residue, use a cloth soaked in mild detergent or adhesive residue remover and a plastic squeegee to scrap off the adhesive residue. Always use caution to avoid scratching the glass.

Thank you for choosing to use our panoRama family of products! Please refer to our website at [www.cgxusa.com](http://www.cgxusa.com) for additional information regarding warranty and technical support.

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