



## **panoRama TwoWay Vision**

### *Handling Recommendations*

panoRama TwoWay Vision window film is easy to apply and remove. Engineered with air egress liner, trapped air easily escapes, ensuring a smooth application. This film conforms well to flat and slightly curved glass surfaces for window graphics, office and educational glass curtain walls, and decorative windows on cars, buses, trains and subways. Installation is simple if you use the recommended tools and follow a few basic rules. Please consider the recommendations of this instruction guide carefully.

### **BASIC ADVICE**

#### ***Printing***

Ensure the film reaches ambient temperature before printing to balance any temperature differences between storage and production areas. The heating plate of the printer should be increased to **95°F (+35°C) to 100°F (+38°C)** when the indoor/ ambient temperature is below 59°F (+15°C).

#### Suitable Printing Methods

- Solvent
- Eco-Solvent
- UV Curable
- Latex

While laminating is not necessary, if you choose to do so, an optically clear, cast laminate is recommended. It is essential that the inks are completely dry laminate is applied. We recommend a drying time of 24 to 48 hours depending on the specific ink used. Prints should lay flat or very loosely rolled during that time for proper and thorough degassing to occur.

### **LAMINATING**

For best results, ensure proper laminator calibration; common lamination issues, such as tunneling and edge-curling when installed often stem from poor calibration. **Use no tension, light pressure, and a slow lamination speed.** After lamination, wait **24 hours before window application.** *The quality of the laminator, rollers, and calibration will have an impact on the result.*



## PACKAGING and TRANSPORTATION

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

- If possible, allow 24 hours after laminating to package and transport graphics.
- Always wind finished graphics 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 in a cold vehicle overnight or for long periods of time in freezing temperatures prior to installation. Material may become brittle and more difficult to apply. Keep material warm (above +50°F/+10°C) until application.

## APPLICATION

### Cleaning

- For optimal adhesion, clean windows, gaskets, and seals with soap and water only—**avoid solvent or ammonia-based cleaners.**
- Alcohol is not a recommended cleaning agent, however if used, rinse thoroughly with water to remove any residue.
- Pay particular attention to corners, edges, seals, and gaskets, as dirt here can lead to edge lift over time.
- Rinse thoroughly, then dry with a lint-free cloth, brown industrial paper, or a squeegee, focusing on corners and edges.

### *Application Temperature*

Ensure a minimum application temperature of **50°F (+10°C)** to **86°F (+30°C)**, applicable to both the environment and the surface. For best adhesion, store the film at the application temperature for a few hours prior.



## METHOD

panoRama TwoWay Vision is backed with a textured liner, creating channels in the adhesive to allow air egress during installation. For this reason, a **dry application method** is recommended. To accommodate glass expansion and contraction, leave a **3-5 mm (1/8" - 1/4") gap between the graphic and the window edge**. Avoid applying the film to window seals or frames, as this may cause detachment and edge curl over time.

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.
6. Using a utility knife and straight edge, carefully trim **3-5 mm (1/8" - 1/4")** away from the window edge/gasket when installing full coverage.
7. Be sure to squeegee the edges firmly and to seal the edges with Edge Protection Tape, a strip of laminate, or liquid edge sealer.
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 Edge Protection Tape, a strip of laminate, or liquid edge sealer.

### ***Edge Protection and Sealing***

To prevent edge curling or lifting, especially in long-term and demanding applications:

- Use **optically clear Edge Protection Tape**, strips of clear laminate, or liquid edge seal along all edges.



## REMOVAL

Removal is simple on glass but may require extra care if left long-term.

1. A minimum temperature of **50°F (10°C)** is recommended for easy removal.
2. Lift a corner and pull at an angle of **45° to 75°**.
3. In rare cases of residue, use a mild detergent or adhesive remover with a plastic scraper, avoiding scratches.
4. In cold weather, soften adhesive with a hair dryer or heat gun (use caution to prevent cracking glass).

*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.*

Thank you for choosing **panoRama TwoWay Vision window film** from Continental Grafix USA, Inc. Please visit us at [www.cgxusa.com](http://www.cgxusa.com) or contact us directly at (704) 872-2216 with additional handling questions or for warranty information.