

Application and Removal Instructions

for panoRama (Cast Version), panoRama, panoRama Innova, panoRama Innova Ice and MegaView with panoRama Cast or panoRama Protect

The following processing guidelines are based on our knowledge and experience. Not every detail relevant to application is covered here. It is assumed that the installer has the required professional expertise. Due to the wide range of potential variables during processing, application, and use, we recommend testing our products under specific conditions before final application. No guarantee of particular properties can be derived from these guidelines.

The self-adhesive panoRama and MegaView window films are designed for easy application and removal. Installation is straightforward when the recommended tools are used, and a few essential rules are followed. This guide is intended to simplify the use of Continental Graftix products. Please follow the instructions carefully.

THESE TECHNICAL SPECIFICATIONS APPLY TO ALL PERFORATION PATTERNS.

GENERAL RECOMMENDATIONS

INK DRYING

panoRama and MegaView self-adhesive window films can be printed using Solvent, Eco-Solvent, UV, or Latex inks (DUO liner) or with Solvent, Eco-Solvent, or Latex inks (Single liner). Please refer to the technical datasheets of the individual products.

It is critical that inks are fully dry prior to lamination. A drying time of 24–48 hours is recommended, depending on ink type and printing system. Observe the following guidelines:

- Lay printed films flat during drying.
- Dry prints unrolled or loosely wound in an upright position.
- For optimal ventilation, place loosely wound rolls on a ventilated rack. Rolls placed directly on the floor may require up to one week to dry completely.

Solvent ink drying test method:

Fold a printed sample with maximum ink coverage onto itself, apply approx. 140 g/cm² pressure for 20 minutes, then check for tackiness or dull spots. These indicate insufficient curing, requiring additional drying.

Latex inks:

Latex prints do not continue curing once removed from the printer. Incomplete curing may result in oily spots that affect laminate adhesion. Use HP Media Selector profiles when printing with Latex inks (www.hp.com/go/mediasolutionslocator). Select profiles with ≤100% ink coverage for best adhesion.

Recommended conditions: 20–25°C (68–77°F) and 40–60% relative humidity. Latex inks must be fully cured inside the printer. Residual moisture will not evaporate through air drying.

Checking the Drying State of Latex Ink

Visual inspection: Immediately after the print exits the printer, inspect the graphic. It should not feel wet, tacky, or smeary to the touch.

Rub test: After the visual check, wipe the sample with a damp white paper towel. Fully dried ink will not transfer. If any ink residue is visible on the towel, the ink has not fully dried.

Stacking test: Although the surface may appear dry, uncured ink can migrate to the surface after a few minutes, causing a smeary or oily appearance. Stack at least 15 sheets of protective paper on the printed side. After approximately 90 minutes, remove the sheets and examine each one for smears, damp spots, or changes in gloss in areas with high ink coverage. If any of these irregularities are present, the ink is not fully cured. If the graphic is not fully cured, adjust the printer settings and reprint.

In most cases, the following adjustments are sufficient:

- Increase the drying time in small increments (typically +5 °C per step).
- Increase the number of passes to reduce print speed.
- Reduce the amount of ink laydown (select a print setting with lower ink density).



LAMINATION

Continental Grafix laminates (panoRama Cast and panoRama Protect) are specifically engineered for one-way vision films and for cold lamination. The laminator's quality and settings directly affect results.

Most lamination issues—including tunneling—result from incorrect machine settings. Tension must be equalized between the perforated film and laminate. Use light pressure and a slow lamination speed. Wait 24 hours before application.

For solvent and eco-solvent prints with full coverage or dark colors, allow inks to outgas for 72 hours prior to lamination to prevent chemical reactions that could cause adhesion failure.



PACKAGING AND TRANSPORT AFTER PRINTING & LAMINATION

To avoid tunneling and related issues during installation:

- Always roll printed graphics with the image facing outward.
- Do not roll too tightly. Use a minimum inner roll diameter of 30–50 cm.



SURFACES

panoRama and MegaView window films are suitable only for flat or slightly curved surfaces. Recommended surfaces include glass, acrylic, and polycarbonate. In recent years, as a film manufacturer, we have increasingly encountered the issue that new glass panes are often produced with a repellent coating, known as a nano-coating. Additionally, modern window cleaners and automated car washes use cleaning agents that repel dirt. While these surface protections prevent dirt accumulation, they also repel any material applied to the glass—including our panoRama and MegaView window films. As a result, the specified adhesive strengths may not always be achieved, and partial lifting of the film can occur even when the film meets our adhesive standards.

General recommendations:

New glass surfaces: New glass panes are frequently supplied with a protective coating. For new façade or bus windows, it is best to check directly with the manufacturer regarding any coatings. We also recommend performing a short adhesion test using a small piece of film, roughly the size of an A4 sheet.

Adhesion issues are often noticeable within 10 minutes; after two days, you can be certain whether a coating exists that could make application difficult or even impossible. Only the glass manufacturer can provide guidance on safe removal of such coatings. In these cases, please contact the glass manufacturer directly.

Aged glass surfaces:

Older glass may also have a light coating due to modern cleaning agents. While this may slightly reduce adhesion, in most cases it has little or no effect on the success of a campaign using our self-adhesive films. To ensure optimal adhesion, we recommend thoroughly cleaning the surface. Note that neither isopropanol, standard glass cleaners, nor professional surface cleaners (e.g., Avery Surface Cleaner) can remove this coating. We advise a traditional cleaning method using soapy water, followed by a thorough rinse with clear water and complete drying. In almost all cases, this removes the protective layer and allows for successful application of our panoRama films.



CLEANING

A thorough cleaning of the surface to be applied is absolutely essential. Use only soapy water for cleaning and under no circumstances should solvent-based cleaners be used. After cleaning, the surface must be dried thoroughly. To dry the surface, use lint-free materials or brown industrial paper. The surface must be completely free of grease, dust, and fibers.

Important:

The surface to be applied must be completely free of any grease, contaminants, or coatings that could negatively affect the adhesive performance.

Cleaning panoRama and MegaView Films on Vehicles

Heavy soiling:

Rinse off heavy dirt with plenty of water. If using a pressure washer, observe the following precautions: maximum water temperature +60°C, maintain a distance of at least 50–70 cm from the film, and do not direct the water jet at the film edges.

Hand washing:

When washing by hand, use plenty of water and a mild, additive-free detergent. Do not use wax, as this can cause stains that are difficult or impossible to remove.

Automatic car washes:

Only use car washes with textile brushes or soft washing elements. Avoid nylon brushes, which can cause fine scratches on the film surface.

Important:

Always choose wash programs without hot wax. Hot wax can leave stains on the film surface that are difficult or impossible to remove.

APPLICATION TEMPERATURE

panoRama (Cast Version), panoRama, panoRama Innova, and MegaView
For flawless application, the ambient and surface temperature must be between +12°C and +32°C. To achieve optimal adhesion, both the surface and the film should be conditioned at this temperature for several hours before and after application. In cold conditions below freezing, it is recommended to wait 24 hours after application before exposing the film to low temperatures. This allows the adhesive to bond properly.

If adhesion is unusually weak (e.g., if the vehicle or certain parts have been treated with a nano-sealant or nano-coating), cleaning the affected areas with acetone can help. Caution: Avoid contact with rubber seals, painted surfaces, or plastic parts, as acetone may cause damage. Continental Grafix assumes no liability for damage caused by acetone.

panoRama Innova Ice

The recommended application temperature ranges from -15°C to +50°C. Unlike the other panoRama films, no waiting period is required before exposing the applied film to cold.

If adhesion is unusually weak due to nano-coatings, acetone can also be used on the affected areas, following the same precautions mentioned above.



APPLICATION METHODS

panoRama and MegaView window films must be applied dry only.

- Do not apply the film onto window frames or rubber seals.
- Do not wedge the film into the frame.
- Maintain a minimum distance of 5 mm from the frame or edge.

Failure to follow these instructions may result in claims being denied.



EDGE PROTECTION AND SEALING

To prevent edge lifting or curling, we strongly recommend the following methods:

- Apply the laminate at least 1 cm beyond the edges of the printed graphic so that it adheres directly to the surface along the edges.
- As additional protection, we recommend using edge protection strips or at least applying laminate strips over the graphic edges. This is generally recommended for all applications, as perforated films otherwise leave open edges where water can penetrate over time, potentially causing lifting.
- For contour-cut graphics (for experienced installers only), post-lamination is possible: first apply the window film to the surface, then apply the laminate on top. The laminate should extend at least 1 cm beyond the graphic onto the surface. For high-stress areas, additional edge protection is recommended.

Note: For panoRama Innova ICE, edge protection is not required; however, all standard application guidelines must still be strictly followed.

APPLICATION

1. Peel the liner from one of the top corners of the vinyl and cut it back approximately 8–16 cm, depending on the size of the graphic.
2. Align the panoRama window film precisely on all sides and temporarily fix it to the surface using masking tape. Apply the exposed portion of the film to the glass with light pressure.
3. Use your hands, a squeegee, or a soft rubber wiper to apply the film.
4. Work from top to bottom, gradually peeling away more liner while pressing the film lightly onto the surface. Continue until the liner is completely removed and the graphic is fully applied.
5. Trim the edges of the graphic with a sharp knife.
6. For multiple panels, align each subsequent panel precisely with the previous one, maintaining a minimum gap of 1 mm.
7. Repeat steps 1–5 for each panel.
8. Finally, smooth the graphic from the center outward in all directions using a rubber wiper or squeegee, applying firm pressure.
9. Pay particular attention to the corners, ensuring they are well-adhered, and protect edges with the recommended edge protection.
10. After application, minor bubbling or cloudiness may appear due to various factors. These typically disappear within a few days and are normal. Do not puncture bubbles with a knife or needle under any circumstances.

MULTI-PANEL GRAPHICS:

For multi-panel graphics, films must never be overlapped. Panels should be butted together with a 1 mm gap, which must be sealed with a laminate strip (edge protection).

OUR PERFORATED FILMS—PANORAMA (CAST VERSION), PANORAMA, PANORAMA INNOVA, AND PANORAMA INNOVA ICE—CAN BE APPLIED TO SLIGHTLY CURVED SURFACES, SUCH AS CAR REAR WINDOWS. THEY ARE NOT SUITABLE FOR 3D DEFORMATION.

For panoRama (Cast Version), panoRama, panoRama Innova, and MegaView on vehicles:

After application, the vehicle should be parked at room temperature for 12–24 hours to allow the adhesive to reach full strength. The lower the ambient temperature, the more important this step becomes. For cold-weather applications, we recommend using panoRama Innova Ice, which can be applied at temperatures from -15°C to +50°C.

REMOVAL

Removing panoRama and MegaView films is generally straightforward. Extended application may increase adhesion and the risk of residue. For older films, try to remove the film in one piece.

- Start by lifting one corner and slowly peel the film back at an angle of 45°–75°.
- Proceed similarly with the other corners. Peeling at angles greater than 90° increases the likelihood of adhesive residue remaining on the surface.
- If minor adhesive remains, clean with a mild detergent and remove residues using a rubber wiper.
- Minimum removal temperature for perforated films is 10°C; this ensures easy removal. In cold conditions, gently warm the adhesive with a hairdryer or heat gun to prevent tearing. Take care not to crack the glass. With careful handling, panoRama and MegaView films can usually be removed in a single piece.

CONTINENTAL GRAFIX AG THANKS YOU FOR CHOOSING A PANORAMA PRODUCT
AND WISHES YOU EVERY SUCCESS. FOR FURTHER INFORMATION, PLEASE
CONTACT US.