

Graffitigard™ 4PLUS Film Installation and Removal Guide

Saint-Gobain Graffitigard™ 4PLUS anti-vandalism film is a durable, optically clear, proven solution to quickly and cost-effectively eradicate vandalism repeatedly with a single application. Vandalized film can be quickly and easily removed refreshing the surface in seconds to protect from future attacks.

The focus of this bulletin will be on the recommended application technique on glass and non-porous surfaces.

Tools required:

1. Spray bottle or pressure sprayer
2. Slip aid
3. Lint free towels
4. Non-abrasive scrub pad
5. Utility knife (snap off blade type)
6. Razor scraper
7. Glass cleaning squeegee
8. Five-way tool or hard card
9. Mounting solution removal squeegee
10. Metal straight edge ruler (1200 mm or greater in length)
11. Disposable film liner

1 Completely clean the glass surface

- a. Wash surface with mounting solution and non-abrasive scrub pad, and squeegee off excess solution. Always perform a test to ensure you do not damage the surface.
- b. **Glass surfaces only** - Wet again with solution and scrape entire surface of glass with razor scraper.
- c. Wet surface and squeegee again.
- d. Wipe edges carefully with lint free towels to remove excess water and dirt.
- e. Make certain all loose dirt is removed from the surface and frame; repeat cleaning process if necessary.

Precautions: OEM glass surfaces may contain a coating applied for ease of handling or protection that must be completely removed prior to the installation of film. Follow the manufacturers recommendations on proper removal.

2 Film preparation

- a. Measure the vision area of the glass.
- b. Film width and length should be cut 3-6mm narrower than the vision area of the glass or short of any contours on non-porous surfaces.
- c. Draw an outline of the pattern on the liner side of the film with a permanent marker. Alternatively, make a pattern using a disposable material such as film liner from a previous project.
- d. Precut the film using a utility knife by aligning your pattern or your marked edges with a straight edge.

- e. Film should be cut utilizing the center of the blade, not the tip of the blade. Using the tip of the blade may cause the film to bend (aka "mushroom") along the cut edge preventing the film from laying flat during installation.

TIP: Use a thick metal ruler or table edge as a straight edge to guide your cuts.

- f. Store the film flat if possible otherwise roll the film liner out with a minimum diameter of 150 mm and tape to secure.

3 Release liner removal

- a. The Graffitigard 4PLUS film adhesive is pressure sensitive and sticks to anything it comes in contact with. It is protected with a disposable release liner that must be removed before application.
- b. Apply tape to one corner of film. Place a second piece of tape on the opposite side of the first piece.
- c. Pulling these tape pieces away from each other will begin the removal of the release liner from the mounting adhesive.
- d. Once removal has begun, immediately begin spraying the exposed adhesive with wetting solution. Continue spraying adhesive surface while removing entire piece of release liner. Discard or store the liner for future patterns.
- e. With the adhesive surface exposed, spray adhesive and window one final time to ensure that both surfaces are fully saturated.

4 Film application

- a. Hold the film at the upper corners being careful not to allow the film to contact any other surfaces. Place the film on window with adhesive side against the glass.

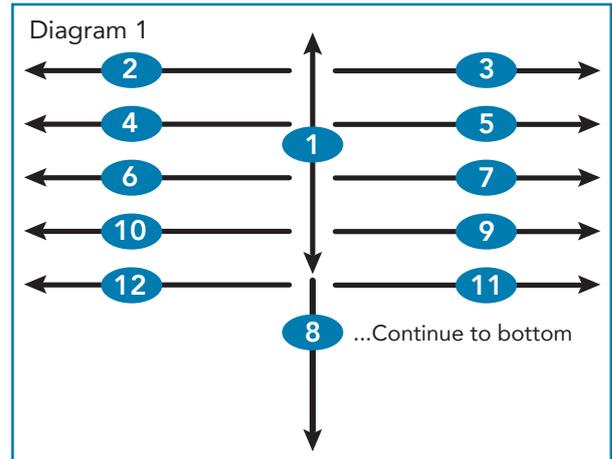
- b. The application solution will allow movement of the window film on the glass.
- c. Slide the film in position leaving 3 -6 mm gap between the film and the frame or gasket.
- d. Spray solution on the film, starting at the center of the film; hold the film in place with your free hand and tack the film with a vertical squeegee stroke (1) displayed in Diagram 1.
- e. Squeegee following the strokes in the diagram to tack it to the window. Squeegee strokes should overlap your previous pass 50% to 75% to prevent water trails.

TIP: Proper use of the squeegee is essential to achieving the professional results you want. Use both hands and your body weight to your advantage and lean into the squeegee as you push. Overlap the previous pass by 50% each time. As you squeegee, angle the squeegee blade slightly away from the previous path. Use slow strokes, applying a good amount of even pressure through the entire pass. The squeegee blade itself should be angled 30 to 45 degrees from the glass surface. The goal is to remove as much mounting solution in a single pass..

Note: Thicker films require thicker heavy duty squeegees. The hard rubber blades transfer more of your weight, or input, directly to the pressure-sensitive surface for a more consistent evacuation of the mounting solution. If a blade becomes nicked or worn it reduces the squeegee's effectiveness, so replace it right away. Saint-Gobain highly recommends an Unger handle with 6" channel & Blue Power Max Blade (catalog #0576 + 0578-6) or Aluminum Squeegee (catalog #0608). These tools can be purchased through filmhandler.com.

5 Finishing

- a. Using a five-way tool or hard card wrapped in a lint free towel systematically work around the window to dry the edges of the film and frame. Rotate towel frequently to reduce the chance of scratching due to contamination from the frame and maximize solution absorption.



6 Removing vandalized film

- a. Use a pick tool to carefully peel a single layer of the film from the underlying surface
- b. Gently press the point of the pick tool along the edge of the film and peel a few centimeters of film (enough to grab with your finger tips)
- c. Slowly peel the film with your hands along the shortest length of the window at an angle between 120-150°.
- d. Keep your hands no further than a meter from the surface. Cut or roll up the excess film as you remove it.

TIP: When removing large pieces of film have a second person assist to maintain the recommended angle. This will reduce the amount of force needed.

ENVIRONMENTAL CONDITIONS: Film may be removed at any time however; removing film in extremely cold or hot conditions can cause a change in the mechanical properties of the adhesive resulting in unwanted adhesive transfer to the surface the film was applied to. The ideal conditions exist when the surface temperature is above 15° C but not higher than 35° C.



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