

Installation Instructions

Please read all installation instructions prior to ordering and again prior to installation for the best quality results and fastest installation.

SerraGlaze is a unique daylight redirecting film. Unlike most window films which are coated, SerraGlaze is a mechanically micro-structured film which is designed to be installed above eye level to the interior surface of the window (side 4 on a dual glazed window, side 6 on a triple glazed window). Due to the mechanical micro-structure process, small imperfections are to be expected. However, as SerraGlaze is designed to be installed above eye level and viewed from a distance of greater than six feet, these manufacturing imperfections do not adversely impact daylight redirection, glare reduction, or visibility.

Additionally, due to the micro-structures, the SerraGlaze may appear hazy. When placed on a window with a physical separator, this haziness typically is barely noticeable. However, because of the visual differences with a non-filmed window surface, we recommend SerraGlaze be installed with a physical separator from the view portion of the window. If the window is not true divided, a false muntin (adhered to the glass surface) in the color of the frame effectively separates the SerraGlaze window from the view window.

SerraGlaze Panel Construction

As SerraGlaze film is directional, when ordering the film, take care to provide accurate measurements of each window surface to be filmed (Width X Height).

1. First, determine the perimeter treatment method prior to measuring (see “Step 4 - Perimeter Treatment” below). A typical installation will be to have a 1/16th gap on each edge so the perimeter should be “sealed” after the adhesive has cured. (When possible, we recommend gaskets/seals be pulled, then SerraGlaze installed, and then seals reinstalled after the film has cured).
2. Measure the film coverage area, either: 1) frame-to-frame; or 2) gasket (seal)-to-gasket and clearly noted.

When the vertical height of the SerraGlaze coverage area requires a height exceeding 18", additional pieces of SerraGlaze are butt joined to complete the custom panel*. (The butt

joint is first treated to reduce the sunlight's scatter at the seam). The panel is then laminated with a pressure sensitive adhesive.

Preparation

SerraGlaze shipment packaging should be inspected for any damage and, if the packaging is damaged, should be opened and inspected for any film damage.

Glass surfaces receiving new film should first be examined to verify that they do not have a window film product already installed and are free from defects and imperfections, which will affect the final appearance. Installing film over existing window film will void the Warranty.

Do not proceed with installation until glass surfaces have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.

SerraGlaze is shipped in finished window panel form to the desired window coverage size, so with accurate measurements, no trimming is necessary. However, if a final field cut is desired at time of installation as a way to deal with slightly different window sizes, the film can be oversized for a group of windows (the same sized windows within up to 1" in width and height) and can be trimmed in the field on a flat surface (such as a table) with a straight edge prior to applying to window surface. When trimming, for best cutting results, face the adhesive side down. Note: Cutting the film on the window may score the glass and cause future glass breakage; and will void the SerraGlaze Warranty.

Installation

Tools and Supplies Needed:

Baby shampoo (Film-On, Johnson's or equivalent)	Clean Water
Application Fluid Sprayer/Dispenser	Window scraper (for cleaning window)
Window squeegee (for cleaning window)	Microfiber cloths or terry towel(s)
Smoother squeegee (thick rubber-e.g. Blue Max)	Sponge or Teflon scrub pad
Hard card (hard plastic, for bumping edges)	Tape

Step 1 - Window Preparation:

1. Only apply the film when the Sun is not shining on the glass and the glass is at interior room temperature of between 67° to 82°F.
2. Prepare a mild surfactant application fluid for cleaning the window and

applying SerraGlaze.

- o Fill a clean sprayer with a measured amount of clean filtered water.
 - o Add ¼ ounce of Film-On/Johnson's Baby Shampoo per gallon of water. We recommend this because it does not harm the adhesive and dries clear. Other soaps and detergents are not recommended.
3. The first step in cleaning is to scrape the window with the window scraper. Remove particles with a lint-free towel such as terry cloth or microfiber towel.
 4. Next, use a sponge or Teflon type scrub pad. Lightly scrub the glass with the soap solution and then use a window squeegee to clean. At the end of each squeegee pass, wipe the blade with a lint-free towel (terry cloth or microfiber towel).
 5. Although the window may appear to be clean, there may still be dirt that has been pushed into the edge of the frame over the years. This dirt will flow out onto the glass when the glass is wetted and needs to be removed. This is done by taking a clean cloth—and carefully wipe all around the window frame.

Step 2 - Film Preparation:

1. Window film has a release liner on the adhesive side and must be removed to expose the adhesive. To remove the release liner, place a piece of tape on the corner of the liner. Remove the liner by pulling the tape diagonally downward, lightly misting the film with the soap solution while removing the liner. Note: if the liner is pulled off without misting the film and liner with the soap solution, it would generate a static charge and dust in the air would be drawn to the film creating bubbles in the finished installation.
2. Once the release liner is removed, mist the film evenly with the soap solution. Also mist the center of the clean glass. Do not mist the edges of the glass as residual dirt may flow back onto the glass.

Step 3 - Film Application:

Care must be used to hang the film in the correct direction. The film will be marked “Top” of the film at starting at the top of the window.

1. It is strongly recommended to have two installers for all but the smallest windows with one installer holding the film and one removing the liner. Carefully place the film onto the window and position it approximately 1/16” to 1/8” from the each edge of the gasket/window frame. The soap solution will hold it in place.
2. There should be about a 1/16 inch to 1/8” gap between the film and frame. This gap is necessary to remove the solution and have the film lay flat on the window. If the film would actually touch the frame or the gasket it would not lie flat, the fluid would be difficult to remove (due to the film thickness) and there would be bubbles as the film is squeegeed.
3. Using the Smoothee Squeegee, firmly (but not very hard) at a 45 degree angle and with consistent pressure, push the squeegee outwards and then down in an “L”

shape to remove the solution at the bottom of the film. Start from the center and work out and down. (This “L” motion will minimize the amount of solution that will be drawn into the edges of the film and done properly, greatly reduces the cure time before doing the perimeter treatment.) Note that with a Smoothie Squeegee, push / do not pull squeegee for improved removal of bubbles and solution. This drives more water out for a better bond. Also place a paper towel or lint free cloth at the edges to soak up the solution and reduce the capillary flow into the film’s grooves.

4. After the first pass with the Smoothie Squeegee, inspect to ensure there are no trapped bubbles and eliminate those bubbles before proceeding.
5. Due to the thickness of the film, it is best to remove the fluid by making multiple firm and even pressure passes with a paper towel or lint-free cloth at the edge to absorb the fluid. Do not press extremely hard as the film can be scratched/damaged. Misting the surface of the film may facilitate easier removal of the application fluid. Using two hands, start at the center and force the water outwards and then down to the bottom edge. It is often helpful to also put a wipe-all (absorbent towel/cloth) over the tools so that the water that is squeezed out is immediately absorbed by the towel. This is most helpful at the top edge where the water tends to drop back down behind the film. Continue this process until all visible fluid is removed and there are no bubbles.
6. As necessary at the edges of the film, bump down the edges with the hard card with a microfiber cloth at the edge to absorb any moisture pushed to the edge.

It can take up to 30 days for the film to firmly bond to the glass. While curing, the film should not be cleaned or otherwise handled. Upon installation, there will be some fluid in the grooves at the edges due to capillary action, but this will evaporate as the film cures. During the curing time, the film can also turn cloudy. That is normal and will clear up as it dries.

Step 4 – Perimeter Treatment:

1. Once the film is cured (up to 30 days), it is strongly recommended to apply a perimeter solution to cover the un-filmed glass gap between the edge of the film and the frame or gasket. This is typically 1/16” to 1/8”, but can be sources of glare if not properly covered.
2. There are several viable ways to cover the glass gap. These include:
 - o Pulling the gaskets (seals) on the sides and bottom before installing the window film, waiting for the cure period, then re-installing the gaskets by spraying them with a soap solution and pressing them back in. This provides the cleanest installation, but is only available with wedge gaskets.
 - o Covering the gap with a sealant.
 - o Covering the gap with a self-adhesive weather strip