



Solar Control, Safety and Security Window Films: **Tech Bulletin**

Visual Inspection & Maintenance of Window Film

I. Visual Inspection of Installation

Installed film on flat glass surfaces is not expected to have the same level of visual quality as glass. The following criteria apply to the installed film only and not to any defect inherent in the glass.

- 1.** Installed film has a discrete time for full adhesion since installation utilizes a slip solution in the water to position the film onto the glass. During the film installation, your Dealer/Installer will remove as much of the installation fluid as possible, but a small amount will still remain. This may result in small water bubbles appearing and/ or a slightly cloudy view. This is normal and should be expected. The time to achieve full adhesion is often referred to as “cure time”. Full cure is typically achieved in approx. 30 days after the installation. Film type and climate conditions will determine the drying time you experience. Warm weather and direct sunlight will shorten the drying time, while cooler climates, cloudy conditions and thicker films may prolong it. Drying may vary from a few days to 6 months. The trapped moisture will dry out completely.
- 2.** Inspection for optical quality can be made before full cure is attained. It should be noted that effects during cure, such as water bubbles, water distortion, and water haze are not to be regarded as defects during the curing period.
- 3.** The glass with applied film shall be viewed at right angles to the glass from the room side, at a distance of not less than 6 feet (2 meters). Viewing shall be carried out in natural daylight, not in direct sunlight, and shall assess the normal vision area with the exception of a 2 inch (50mm) wide band around the perimeter of the window.
- 4.** The 2 inch (50mm) wide band around the perimeter shall be assessed by a similar procedure to that in 3, but some particles are acceptable where poor frame and/or environmental conditions makes contamination unavoidable. A small number of particles is considered acceptable where poor frame and/or environmental conditions mitigates against the high quality standards normally achieved. The installation shall be deemed acceptable when contamination is minimized and unobtrusive to normal viewing through the glass.
- 5.** Splicing of films is necessary when larger panels of glass exceed the maximum width of film by both length and width. The splice line itself should not be viewed as a defect. This line should be straight and should be parallel to one edge of the frame margin. For clear and solar films, the two pieces of film may be overlapped, spliced or butt jointed. For safety film applications, the splice should be horizontal at the highest level of the window to ensure the highest level of resistance to entry. It is highly recommended to overlap the applied layer by 2-3 inches. For safety films thicker than 4 mil (100 micron), it is recommended to apply a 3-4 inch strip of safety film onto a butt joint. This will avoid a large air gap created by thicker films overlap and provide better appearance.

II. Commercial applications: Interior window films

CLEANING WINDOW FILM

Window film is less porous than glass, will not accumulate dirt as quickly as glass and is easier to clean. Cleaning of film is required less frequently than the cleaning of glass. A simple solution of a mild dishwashing detergent and water will suffice for most pollutants. Always use clean, soft materials to clean and dry the coated surfaces. A soft cloth or sponge is recommended for washing the window, followed by another soft cloth or rubber squeegee to dry the film. To avoid scratching the film, do not use bristle brushes or abrasive sponges. These materials can cause fine scratches on the surface of the Solar Gard window film and cause the polished layer of the film to deteriorate over time.

WINDOW FILM MAINTENANCE

Although there is no maintenance required for the film to perform as expected, there are some steps that can be taken to keep the film looking new for many years. Clean the films surface regularly following the guidelines in section 2. Avoid the application of tapes, static clings, etc that may damage the surface or require harsh chemicals to remove causing damage to the surface.

EDGE GAPS

Edge gaps will normally be 1/32-1/16 inch (1-2mm). This allows for the waler used in the installation to be squeegeed out. This ensures that film edges are not raised up by contact with the frame margin. Contact with the frame margin could lead to peeling of the film. For thicker safety films the edge gaps will normally be 1/16-1/8 inch (2-3mm).

III. Commercial applications: Exterior window films

CLEANING WINDOW FILM

In many cases, exterior window film is cleaned by professional window cleaning companies. Exterior films should be thoroughly rinsed with cleaning solution prior to beginning the cleaning process. This will remove attached environmental debris that may cause scratches. Always use clean, soft materials to clean and dry the coated surfaces. A soft cloth or sponge is recommended for washing the window, followed by another soft cloth or rubber squeegee to dry the film. To avoid scratching the film, do not use bristle brushes or abrasive sponges. Please make certain that any commercial window cleaning services receive a copy of this bulletin.

WINDOW FILM MAINTENANCE

Although there is no maintenance required for the film to perform as expected, there are some steps that can be taken to keep the film looking new for many years. Clean the films surface regularly following the guidelines in section 3. Avoid the application of tapes, static clings, etc that may damage the surface or require harsh chemicals to remove causing damage to the surface.

EDGE GAPS

Edge gaps on exterior films will normally be 1/16-1/8 inch (2-3mm). This allows for the water used in the installation to be squeegeed out. This also ensures the edge of the film is slightly exposed so that proper edge sealing can be applied per warranty requirements.