



**PRESSGLASS**

# GENERAL GLASS CLEANING GUIDELINES

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## GENERAL GUIDELINES

Because glass can be permanently damaged from improper cleaning techniques it is strongly recommended that the following guidelines be strictly followed for successful results.

1. Begin by soaking the glass surface with a **mixture of clean water and a mild, non-abrasive commercial window cleaning solution**. The mixture should be applied to the glass surface with a brush, strip washer, or other suitable, non-abrasive applicator. If there is excessive dirt and grime on the glass rinse with clean water before applying cleaning solution. Frequently examine the applicator to make sure it remains free of any abrasive debris that might scratch the surface of the glass. A squeegee should be used immediately following the glass soaking to remove all of the cleaning solution. Throughout the cleaning process care should be exercised in making sure that no metal parts of the cleaning tools come in contact with the glass and that the tools are cleaned often to prevent them from picking up abrasive debris from the glass surface and trapping it between the tool and glass surface, thus scratching the glass. **Any cleaning fluids that remain on the surrounding framing, sealants, and gaskets should be rinsed off** to ensure complete removal and, to prevent their possible deterioration.
2. It is recommended, especially if the glass surface being cleaned is a coated surface (reflective or otherwise), to wash one window only and then stop to closely examine the surface for any scratches or damage that might be caused by the cleaning equipment.
3. A common cause of scratches during jobsite window and glass cleaning is the use of large scrapers or razor blades over a large surface area. This is not recommended, it is best practice to **avoid using razor blades, sharp objects, steel wool, sandpaper, abrasive pads, acids, bases, or undiluted/improperly diluted brick wash** for glass cleaning. When materials cannot easily be removed from the glass surface through the cleaning process above, the use of a new 1" razor blade may be used. This should be used on a small area only, and scraping should be in one direction. Never scrape back and forth as abrasive particles may become trapped under the blade and scratch the glass. This can cause hairline scratches that become noticeable under certain lighting conditions.
4. During the heat-treating process the contact between the softened glass surface and the hot oven rollers can result in slight abrasions and dimpling of the glass surface. In addition, in a glass fabrication plant environment there exist microscopic airborne particles of glass, dust, grit and oven insulation material which may adhere to the glass surface while it is in a softened state. Though these characteristics are generally invisible, have no effect on the visual or structural quality of the glass and are permitted by the ASTM Specifications for glass quality, they may be detectable to the touch. It is this "feel" that may cause some glass cleaning personnel to use scrapers or razor blades. This practice is not recommended because it can lead to widespread scratching and even surface chipping. The glass cleaning procedure for heat-treated glass is the same as for annealed glass.

## EXPOSURE TO CORROSIVE CLEANING SOLUTIONS

Using corrosive cleaning detergents, commonly known as "brick wash," during post-installation construction clean-up can lead to corrosion of glass and Low-E coatings. Failure to provide protection to the fenestration assembly surfaces when applying brick wash can result in **severe damage to window systems and IGUs** (Insulating Glass Units), potentially **voiding the glass warranty**.

This warning is specifically directed at detergents with concentrated chemicals falling into three categories: **acidic** (e.g., hydrofluoric, hydrochloric, or muriatic acid solutions), **alkaline** (such as sodium hydroxide), and **organic** (including solvents like benzene). Brick wash solutions falling into these categories are highly corrosive.

Improper use of brick wash can cause damage to both exposed and unexposed window system components. Unexposed components are particularly vulnerable, as brick wash can breach the glazing bead and infiltrate the weep system of the window. Exposure may occur during the initial application of brick wash or through secondary exposure when the window surface is rewetted by rainwater or during future cleaning. When brick wash was used, studies have shown that high concentrations of hydrochloric acid were identified as a primary factor leading to failures in Insulating Glass Units (IGUs). Although edge deletion of the Low-E coating was effective in decreasing the risk of IGU failure when exposed to brick wash, it did not completely eliminate the possibility of failure, especially at higher volumes and concentrations of brick wash.

## SPECIFIC GLASS TYPES

### COATINGS ON EXPOSED SURFACES

Prior to cleaning glass, it is recommended to check whether any of the exposed glass surfaces are coated. To clean coatings on exposed surfaces, never use any corrosive and alkaline substances (fluorine, chlorine) or scouring powders as they could damage the coating.

#### a) UV coatings on surface #1:

During cleaning, the visibility of **UV coatings on surface #1** such as the Bird1st™ UV, coating stripe pattern is caused by surfactant residue, and the intensity persists until the surface is thoroughly rinsed and dried. Stripes become apparent during glass washing, condensation formation, or frost presence. For cleaning the installed UV coatings on surface #1, it is recommended to use an **ammonia** and **water-based solution like Windex**. Press Glass endorses the procedures outlined by the **NGA (GANA)**, as detailed in the Informational Bulletin titled "**Proper Procedures for Cleaning Architectural Glass Products**," providing guidance on cleaning installed architectural glass. It's essential to note that the use of cerium oxide, Sparkle SP101, or other polishing agents is strictly prohibited on UV coatings on surface #1. The application of such products can disrupt the coating and adversely affect the bird deterrence performance. *For further glass cleaning information, reach out to glass manufacturer.*

#### b) Bird Friendly Etched:

For cleaning the installed Bird Friendly Etch glass surface, it is recommended to use an **ammonia** and **water-based solution like Windex** or a **mild non-abrasive soap**. Effective cleaning practices include soaking the glass to loosen debris, ensuring the surface doesn't dry during soaking, avoiding the use of razor blades

and scrapers, and cleaning a small area of a single unit followed by inspecting for damage. Utilizing the services of glass cleaning professionals for specialty glass surfaces is also advisable. Both Press Glass and glass manufacturer endorses the procedures and recommendations outlined by NGA (GANA), as detailed in the Informational Bulletin titled "[Proper Procedures for Cleaning Architectural Glass Products](#)," which provides comprehensive instructions on cleaning installed architectural glass. It's essential to note that the use of cerium oxide, Sparkle SP101, or other polishing agents is strictly prohibited on the Bird Friendly Etch etched surface. The application of such products may cause damage to the etched areas and adversely impact the bird deterrence performance.

c) **Acid Etched:**

For cleaning the installed acid-etched glass surface, it is recommended to use an **ammonia** and **water-based solution like Windex** or a **mild non-abrasive soap**. Effective cleaning practices include soaking the glass to loosen debris, ensuring the surface doesn't dry during soaking, avoiding the use of razor blades and scrapers, and cleaning a small area of a single unit followed by inspecting for damage. Utilizing the services of glass cleaning professionals for specialty glass surfaces is also advisable. Press Glass and glass manufacturer endorses the procedures and recommendations outlined by **NGA (GANA)**, as detailed in the Informational Bulletin titled "[Proper Procedures for Cleaning Architectural Glass Products](#)," which provides comprehensive instructions on cleaning installed architectural glass. It's essential to note that the use of cerium oxide, Sparkle SP101, or other polishing agents, as well as cleaners containing hydrofluoric and phosphoric acids is strictly prohibited on the acid-etched surface. If products need to be applied to the acid-etched surface, such as sealants, adhesives, or markers, Press Glass recommends conducting a test to ensure easy removal. Some products, like silicone adhesives, mastics, black felt markers, wax markers, oil, and grease, may cause issues and should be avoided or evaluated beforehand.

Note: Certain cleaning products may not be safe on uncoated glass surfaces, metal, tile, marble, brass, or other materials. Refer to the cleaner's intended surfaces and MSDS sheets.

For further information on industry cleaning procedures visit [the National Glass Association with GANA website at www.glass.org](#)

1. [Proper Procedures for Cleaning Architectural Glass Products FB01-00 \(2023\)](#)
2. [Heat Treated Glass Surfaces Are Different \(FB02-02\) 2023](#)
3. [Construction Site Protection and Maintenance of Architectural Glass FB03-03 2018](#)



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