caoba®

ARCHITECTURAL WINDOWS DOORS AND MILLWORK

Proper Procedures for Cleaning Architectural Glass Products

www.caobadoors.com | info@caobadoors.com

Introduction

Caoba is proud to offer this extensive guide detailing the proper procedures for cleaning architectural glass products. With insights from experts dedicated to preserving the integrity and aesthetics of your glass surfaces, adhere to this guide for expert recommendations. By following these thoughtfully designed instructions, you can achieve optimal performance, clarity, and longevity for your glass, windows, and doors. We believe that implementing these procedures will elevate the beauty and durability of your architectural glass installations.

ARCHITECTURAL GLASS - CLEANING GUIDELINES

Proper cleaning is essential to maintain the appearance and performance of architectural glass. These general guidelines are based on industry standards, including those from the Glass Association of North America (GANA), and are intended to help prevent damage caused by improper cleaning methods.

General Considerations

Architectural glass enhances buildings by offering natural light, views, thermal comfort, and aesthetic appeal. It can be found in various forms, including:

- **Types:** Clear, tinted, reflective, Low-E, laminated, insulating, monolithic, or tempered.
- **Finishes & Coatings:** Spandrel, silk-screened, digitally printed, patterned, acid-etched, and sand-blasted.

NOTE:

Some coatings may be on the exposed surface of the glass, requiring special care.

Cleaning During and After Construction

Glass should be protected throughout construction and cleaned regularly to avoid the buildup of dirt or materials that can cause permanent damage.

Routine Cleaning and Maintenance

Clean glass whenever dirt or residue appears, adjusting frequency based on local environmental conditions.

- Use appropriate cleaning solutions and soft, non-abrasive tools.
- Avoid cleaning in direct sunlight, especially for tinted or reflective glass, as high surface temperatures can impact results.

Special Considerations for Reflective Glass

If the reflective coating is exposed, extra care must be taken to avoid scratching or removing the coating. To test whether the coating is on the exposed surface:

- Touch a pencil point to the glass.
- If the reflection meets the tip, the coating is on that side.
- If there's a gap between the pencil and its reflection, the coating is on the opposite side.

ARCHITECTURAL GLASS - CLEANING GUIDELINES

Preparation Before Cleaning

- **Avoid Wind Exposure:** Make sure wind is not carrying cleaning solution or residue onto already cleaned glass surfaces.
- **Test First:** Always begin by cleaning a small test area. Inspect it carefully under natural daylight to detect any potential damage, such as light scratches or coating issues.
- **Check All Glass Types:** Perform tests on different glass types used in the building (vision, spandrel, etc.), as each may react differently to cleaning methods and lighting conditions.

Standard Cleaning Steps

- **Pre-Rinse:** Soak the glass with clean water and apply a mild, non-abrasive glass cleaner.
- **Apply Solution:** Use a soft applicator (brush or strip washer) to gently agitate the surface and loosen dirt.
- **Remove Solution:** Use a squeegee immediately after applying the solution to prevent residue buildup.
- **Avoid Metal Contact:** Do not use metal tools, razor blades, or scrapers during routine cleaning, as they can scratch the glass.
- **Use Plenty of Water:** Flush surfaces thoroughly to keep abrasive particles from scratching the glass during cleaning.

Pure Water Cleaning Method

An alternative method recognized by GANA and IWCA involves the use of pure water and extension poles with soft brushes.

Only use water with TDS (Total Dissolved Solids) levels below 20 ppm to avoid spotting and streaking.

- Do not use untreated tap water.
- Water should be treated via ion exchange or reverse osmosis.
- Monitor water quality with a handheld TDS or conductivity meter.

Heavier Contaminants and Restoration

If the glass has been exposed to harsh construction materials or left unprotected, routine cleaning may not be sufficient. More aggressive methods—such as chemical cleaning, mechanical polishing, or careful razor blade use—may be necessary for:

- Paint, stain, or varnish overspray
- Mortar, cement, or concrete splashes
- Silicone or sealant smears
- Masonry sealant or waterproofing runoff

ARCHITECTURAL GLASS - CLEANING GUIDELINES

Understanding Glass Types Before Cleaning

Before cleaning architectural glass, it's essential to identify the type of glass and whether any coatings are present on the exposed surfaces. Different types of glass require specific care to avoid damage.

Heat-Treated Glass

Most architectural glass today is heat-treated—either heat-strengthened or fully tempered—for added strength and safety. However, these surfaces require extra caution during cleaning. Refer to industry standards like GANA's Bulletin TD 02-0402, Heat-Treated Glass Surfaces are different, for proper care.

Coated and Reflective Glass

- High-performance windows may feature coatings on one or both surfaces:
- Low-E coatings are typically neutral in color and hard to detect.
- Reflective coatings are more visible and can be easily scratched.
- These coated surfaces require special cleaning procedures. Always follow manufacturer guidance when cleaning coated or reflective glass.

Laminated Glass

Laminated glass contains a plastic interlayer, often visible around the edges. This material is sensitive to many cleaning chemicals. Avoid exposing the interlayer to cleaning fluids or vapors.

Do not use corrosive or aggressive substances on laminated glass, such as:

- Bleach or products with sodium hypochlorite
- Acids like muriatic/hydrochloric or hydrofluoric
- Acetic acid (including vinegar)
- Ammonia
- Solvents such as toluene or xylene
- MEK (Methyl Ethyl Ketone), acetone
- Ethyl acetate, mineral spirits, turpentine, methanol
- Any product labeled as flammable or corrosive
- Using these substances can lead to permanent damage to the glass or interlayer.

Protecting Glass During and After Installation

Insulating, laminated, and decorative glass is often installed with sealants, gaskets, or tapes, but these materials don't fully protect against cleaning agents entering the glazing pocket and damaging the glass edge or seals. Even with weep holes, harsh chemicals can still affect sealants and reduce the lifespan of insulating glass units.

ARCHITECTURAL GLASS - CLEANING GUIDELINES

- Most glass damage occurs during construction from non-glass trades—tools leaning on glass, overspray, or improper cleaning can cause permanent harm. To protect glass performance over time, it's essential to:
- Follow handling and cleaning guidelines from GANA, IWCA, and the fabricator
- Clean regularly—typically twice per year or more often in harsher environments

Quick Guide: Do's and Don'ts for Cleaning Architectural Glass

✅ DO:

- Clean the glass when dirt or residue is visible
- Protect glass throughout all construction stages
- Identify if any coatings are on exposed surfaces
- Use extra care when cleaning coated or tinted glass
- Avoid cleaning in direct sunlight, especially on coated or tinted surfaces
- Clean from the top down
- Pre-soak glass with clean water and mild soap to loosen debris
- Use a soft, non-abrasive cleaning solution
- Remove the solution with a squeegee immediately
- Test-clean one window and inspect before continuing
- Follow cleaning recommendations from the glass supplier
- Warn other trades to avoid damaging the glass
- Monitor conditions that may cause long-term damage

❌ DON'T:

- Don't clean without knowing if a coating is exposed
- Don't let dirt, residue, or cleaning solution sit on the glass
- Don't clean in direct sunlight if the glass is tinted or coated
- Don't skip rinsing off loose dirt before cleaning
- Don't use abrasive materials or harsh chemicals
- Don't use razor blades on coated glass
- Don't let the metal parts of cleaning tools touch the glass

caoba®

ARCHITECTURAL WINDOWS, DOORS AND MILLWORK

Contact Information

Office and Factory:

Finca San Isidro, Jocotenango,
Sacatepequez, Guatemala, C.A.

Phone Number :

+1 215 525 5048

Email :

info@caobadoors.com

Website:

www.caobadoors.com