1. Quick Guide

DO:

- clean glass when dirt and residue appear
- determine if coated glass surfaces are exposed
- exercise special care when cleaning coated glass surfaces
- avoid cleaning tinted and coated glass surfaces in direct sunlight
- start cleaning at the top of the building and continue to lower levels
- soak the glass surface with a clean water and soap solution to loosen dirt and debris
- use a mild, non-abrasive commercial window cleaning solution
- use a squeegee to remove all of the cleaning solution
- dry all cleaning solution from window gaskets, sealants and frames
- clean one small window and check to see if procedures have caused any damage
- caution other trades against allowing other materials to contact the glass
- watch for and prevent conditions that can damage the glass

DO NOT:

- use scrapers of any size or type for cleaning glass
- allow dirt and residue to remain on glass for an extended period of time
- begin cleaning glass without knowing if a coated surface is exposed
- clean tinted or coated glass in direct sunlight
- allow water or cleaning residue to remain on the glass or adjacent materials
- begin cleaning without rinsing excessive dirt and debris
- use abrasive cleaning solutions or materials
- allow metal parts of cleaning equipment to contact the glass
- trap abrasive particles between the cleaning materials and the glass surface
- allow other trades to lean tools or materials against the glass surface
- allow splashed materials to dry on the glass surface

2. Glass Cleaning

Architectural glass products must be properly cleaned during construction activities and as a part of routine maintenance in order to maintain visual and aesthetic clarity. Since glass products can be permanently damaged if improperly cleaned, glass producers and fabricators recommend strict compliance with the following procedures for properly cleaning glass surfaces.

As dirt and residue appear, interior and exterior glass surfaces should be thoroughly cleaned. Concrete or mortar slurry which runs down (or is splashed on) glass can be especially damaging and should be washed off as soon as possible. Before proceeding with cleaning, determine whether the glass is clear, tinted or reflective. Surface damage is more noticeable on reflective glass as compared with the other glass products. If the reflective surface is exposed, either on the exterior or interior, special care must be taken when cleaning, as scratches to the reflective glass surface can result in coating removal and a visible change in light transmittance. Cleaning tinted and reflective glass surfaces in direct sunlight should be avoided, as the surface temperature may be excessively hot for optimum cleaning. Cleaning should begin at the top of the building and continue to the lower levels to reduce the risk of leaving residue and cleaning solutions on glass at the lower levels. Cleaning procedures should also ensure that the wind is not blowing the cleaning solution and residue onto already cleaned glass.

Cleaning during construction activities should begin with soaking the glass surfaces with clean water and soap solution to loosen dirt or debris. Using a mild, non-abrasive commercial window washing solution, uniformly apply the solution to the glass surfaces with a brush, strip washer or other non-abrasive applicator. Immediately following the application of the cleaning solution, a squeegee should be used to remove all of the cleaning solution from the glass surface. Care should be taken to ensure that no metal parts of the cleaning equipment touch the glass surface and that no abrasive particles are trapped between the glass and the cleaning materials. All water and cleaning solution residue should be dried from window gaskets, sealants and frames to avoid the potential for deterioration of these materials as the result of the cleaning process.

It is strongly recommended that window washers clean a small area or one window, then stop and examine the surface for any damage to the glass and/or reflective coating. The ability to detect certain surface damage, i.e. light scratches, may vary greatly with the lighting conditions. Direct sunlight is needed to properly evaluate a glass surface for damage. Scratches that are not easily seen with a dark or gray sky may be very noticeable when the sun is at a certain angle in the sky or when the sun is low in the sky.

A large percentage of damaged glass results from non-glass trades working near glass. This will include painters, spacklers, ironworkers, landscapers, carpenters and others who are part of the construction process. They may inadvertently lean tools against the glass, splash materials onto the glass and/or clean the glass incorrectly, any of which can permanently damage glass.

One of the common mistakes made by non-glass trades people, including glass cleaning contractors, is their use of razor blades or other scrappers on a large portion of the glass surface. Using 2, 3, 4, 5 inch and larger blades to scrape a window clean carries a large probability for causing irreparable damage to glass.

When paint or other construction materials cannot be removed with normal cleaning procedures, a new 1" razor blade may need to be used only on non-coated glass surfaces. The razor blade should be used on small spots only. Scraping should be done in one direction only. Never scrape in a back and forth motion as this could trap particles under the blade that could scratch the glass. This practice may cause hairline concentrated scratches, which are not normally visible when looking through the glass, but may be visible under certain lighting conditions.

3. Laminated Glass Cleaning

In addition to the previous section “Glass Cleaning”:

Grease and excess sealant materials can be removed with commercial solvents such as mineral spirits or naphtha. Follow with a normal wash and rinse. Avoid excessive application of all other solvents.

The edges of laminated architectural products must not be exposed to solvents which can react to interlayer(s). Prolonged exposure to water, water vapor, solvents, or solvent vapors may cause delamination or haziness around the periphery.

4. References:

- GANA Glass Informational Bulletin GANA 01-0300
- GANA Laminated Glazing Reference Manual, 2009 Edition