WINDOW CLEANING BAY AREA

WHITE PAPER

Hard Water, Mineral Etching And Glass Damage: Protecting Commercial Glazing In The Bay Area

What glass industry guidance from NGA, IWCA and Vitro says about rundown staining, products that damage glass, heat-treated and coated glass, and how often to clean.

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Executive Summary

Commercial glass is durable, but it is not indestructible. Mineral-laden rundown, construction slurry and the wrong cleaning products can leave stains that become permanent damage. This paper summarizes what the glass industry itself recommends: the National Glass Association (NGA) and IWCA bulletin FB01-00, NGA's FB02-02 on heat-treated glass, and Vitro Architectural Glass technical document TD-142.

Key Points

- **Rundown Must Go Quickly:** Rundown from metals and masonry, such as concrete and stucco, should be cleaned as soon as possible or permanent staining or damage may occur. Vitro TD-142
- **No Acids:** Cleaning solutions should not include acids, especially muriatic/hydrochloric and hydrofluoric. FB01-00
- **No Abrasives Or Metal Scrapers:** Scrapers, abrasives and harsh chemicals can cause irreparable damage to any glass. FB02-02
- **Twice A Year Baseline:** Generally, cleaning twice a year is sufficient, with some regions needing more. FB01-00
- **Exposed Coatings:** Vitro says coated glass glazed with the coating exposed outdoors needs cleaning at least 3 to 4 times a year. TD-142

How Mineral Deposits And Rundown Stain Glass

Vitro warns that rundown from metals and masonry "should be cleaned from the glass as soon as" possible and not left on coated surfaces, because "if such rundown is not quickly removed, permanent staining and/or glass damage may occur." It notes the same can happen with uncoated glass. TD-142 FB01-00 lists mortar, concrete or cement splashing and sealer run-off from masonry waterproofing among the conditions that can call for more aggressive cleaning. FB01-00

Staining vs Permanent Surface Damage

FB01-00 states that "glass products can be permanently damaged if infrequently or improperly cleaned." Razor blades and metal scrapers "should not be part of routine cleaning." NGA members neither condone nor recommend scraping glass for routine cleaning, which can leave fine scratches. FB01-00

What Not To Use

Do	Do Not
Soak Glass With Clean Water And A Mild, Non-Abrasive Solution	Use Acids, Especially Muriatic/Hydrochloric Or Hydrofluoric
Squeegee Off All Solution	Use Harsh Cleaners, Abrasives Or Alkaline Materials
Start At The Top Of The Building	Use Metal Scrapers Or Tools
Avoid Tinted Or Coated Glass In Direct Sunlight	Use Additives That Could Form Hydrofluoric Acid

Sources: FB01-00; Vitro TD-142.

Vitro adds that hydrofluoric acid "will quickly and permanently" damage glass. TD-142

Heat-Treated And Coated Glass Need Extra Care

Cleaning procedures for heat-treated glass are the same as for annealed glass, but heat treatment moves glass on hot rollers, and fine particles can fuse to the surface. FB02-02 Vitro notes that on heat-strengthened or tempered glass, "even a plastic scraper may dislodge" such fused debris and cause damage. TD-142

Prevention Schedule

Glass Condition	Recommended Response	Source
Typical Architectural Glass	Generally twice per year; more in some regions	FB01-00
Coated Glass With Coating Exposed Outdoors	At least 3 to 4 times per year	TD-142
Metal Or Masonry Rundown	Remove as soon as possible	TD-142
Mortar, Concrete, Sealer Overspray	Non-routine cleaning by professionals	FB01-00

Owners should also find out whether any glass has an exposed coating or applied film, because FB01-00 tells cleaners to check this first. FB01-00

Sources

- NGA/IWCA FB01-00 (2023), Proper Procedures for Cleaning Architectural Glass Products. https://www.agm-inc.com/images/Architectural_Glass.pdf
- NGA FB02-02 (2023), Heat-Treated Glass Surfaces Are Different. https://www.glass.org/sites/default/files/2023-10/FB02-02_2023_Heat-Treated_Glass_Surfaces_Different.pdf
- Vitro Architectural Glass TD-142, Glass Cleaning Recommendations. https://www.vitroglazings.com/media/ycnpjcpn/tech_doc_142.pdf

About Window Cleaning Bay Area

Window Cleaning Bay Area provides commercial window cleaning, pressure washing and solar panel cleaning across the San Francisco Bay Area. Contact: grayson@windowcleaningbayarea.com