

Let's Shine

#### **GENERAL OVERVIEW AND CONTACT**

Boyd Windows are tested, manufactured, and supplied in accordance with AAMA standards, specifications, and requirements; however, Boyd Aluminum cannot protect against adverse environmental conditions or extreme or unusual use of the products provided in the field. The information contained in this manual has been compiled for general and typical window types. Boyd cannot warrant or guarantee products that are used in any manner other than normal use, and results may differ from those expressed in this manual. Due to custom applications, design, and specifications of this industry, some of the information may not apply and should be analyzed and reviewed before action is taken. Users of material should conduct their own tests to verify that the material is applicable for the field application.

In the event that a part or piece has broken or become defective, please contact you contractor or installer, who will send requests for information or possible replacement.

#### 1. GENERAL CLEANING

Glass should be washed, rinsed, and dried during the different phases of construction. This will help prevent the accumulation of foreign debris from adhering and distorting the glass from its original quality. For most glass, except specialty or coated glass, use mild soap and clean with soft and particle-free cloths or sponges. A slightly acidic cleaning solution can be used on glass, but it must be immediately rinsed with clean water. Use of a rubber squeegee for streak-free viewing is acceptable. Check with the project glass manufacturer for specific cleaning instructions.

### 2. PROPER PROCEDURES FOR CLEANING ARCHITECTURAL GLASS PRODUCTS - PUBLISHED BY THE GLASS ASSOCIATION OF AMERICA (GANA 01-0300)

Architectural glass products play a major role in the comfort of living and working environment(s) of today's homes and commercial office spaces. By providing natural daylight, views of the surroundings, thermal comfort, and design aesthetics, glass usage and condition often affect our selection of where we live, work, shop, play, and seek education.

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.

As dirt and residue appear, interior and exterior glass surfaces should be thoroughly cleaned. Concrete or mortar slurry that 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.

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.

NOTE: It is strongly recommended that window washers clean a small area or one window, then

The glass industry takes extreme care to avoid glass scratches by protecting all glass surfaces during glass

**NOTE:** 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.

**NOTE:** 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.



manufacturing and fabrication, as well as during all shipping and handling required to deliver the glass to the end user. A large percentage of damaged glass results from non-glass trades working near glass. This will include painters, siding contractors, 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.

Using 2, 3, 4, 5 inch and larger blades to scrape a window clean carries a large probability for causing irreparable damage to glass.

The entire industry of glass manufacturers, fabricators, distributors, and installers neither condones nor recommends widespread scraping of glass surfaces with metal blades or knives. Such scraping will often permanently damage or scratch the glass surfaces. 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.

Jobsite storage and construction conditions can lead to stains on the glass surface. Cleaning and removal of such stains may require the use of a more aggressive cleaning solution and procedure. If conditions are found that cannot be cleaned using the above procedures, contact the glass supplier for guidelines on stain removal.

Members of the Glass Association of North America (GANA) publish information relating to jobsite protection and cleaning of architectural glass products. In order to ensure long-term performance of the glass in a building, GANA encourages glazing contractors, general contractors, building management, and owners to be aware of conditions that can damage glass and to follow the handling and cleaning guidelines provided by their glass producer and fabricator.

Consult the GANA website (www.glasswebsite.com) for additional information on glass and glazing applications and links to members providing additional technical resources.

The Glass Association of North America (GANA) has produced this Glass Information Bulletin solely to provide general information as to basic proper procedures for cleaning architectural glass products. The Bulletin does not purport to state that any one particular type of glass cleaning process or procedure should be used in all applications or even in any specific application. The user of this Bulletin has the responsibility to ensure the cleaning instructions from the glass supplier are followed. GANA disclaims any responsibility for any specific results relating to the use of this Bulletin, for any errors or omissions contained in the Bulletin, and for any liability for loss or damage of any kind arising out of the use of this Bulletin.

**NOTE:** 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.



GLASS ASSOCIATION OF AMERICA "TO DO" AND "DO NOT DO" LIST:	
TO DO	DO NOT DO
DO CLEAN GLASS WHEN DIRT AND RESIDUE APPEAR	DO <b>NOT</b> START CLEANING WITHOUT READING THE ENTIRE GANA BULLETIN ON GLASS CLEANING
DO DETERMINE IF COATED GLASS	DO <b>NOT</b> USE SCRAPERS OF ANY SIZE
SURFACES ARE EXPOSED	OR TYPE FOR CLEANING GLASS
DO EXERCISE SPECIAL CARE WHEN	DO <b>NOT</b> ALLOW DIRT AND RESIDUE TO REMAIN
CLEANING COATED GLASS SURFACES	ON GLASS FOR AN EXTENDED PERIOD OF TIME
DO AVOID CLEANING TINTED AND COATED GLASS	DO <b>NOT</b> BEGIN CLEANING GLASS WITHOUT
SURFACES IN DIRECT SUNLIGHT	KNOWING IF A COATED SURFACE IS EXPOSED
DO START CLEANING AT THE TOP OF THE BUILDING AND	DO <b>NOT</b> CLEAN TINTED OR COATED
CONTINUE TO LOWER LEVELS	GLASS IN DIRECT SUNLIGHT
DO SOAK THE GLASS SURFACE WITH A CLEAN WATER	DO <b>NOT</b> ALLOW WATER OR CLEANING RESIDUE TO
AND SOAP SOLUTION TO LOOSEN DIRT AND DEBRIS	REMAIN ON THE GLASS OR ADJACENT MATERIALS
DO USE A MILD, NON-ABRASIVE	DO <b>NOT</b> BEGIN CLEANING WITHOUT
COMMERCIAL WINDOW CLEANING SOLUTION	RINSING EXCESSIVE DIRT AND DEBRIS
DO USE A SQUEEGEE TO REMOVE	DO <b>NOT</b> USE ABRASIVE CLEANING
ALL OF THE CLEANING SOLUTION	SOLUTIONS OR MATERIALS
DO DRY ALL CLEANING SOLUTION FROM	DO <b>NOT</b> ALLOW METAL PARTS OF CLEANING
WINDOW GASKETS, SEALANTS, AND FRAMES	EQUIPMENT TO CONTACT THE GLASS
DO CLEAN ONE SMALL WINDOW AND CHECK TO	DO <b>NOT</b> TRAP ABRASIVE PARTICLES BETWEEN THE
SEE IF PROCEDURES HAVE CAUSED ANY DAMAGE	CLEANING MATERIALS AND THE GLASS SURFACE
DO BE AWARE OF AND FOLLOW THE GLASS SUPPLIER'S	DO <b>NOT</b> ALLOW OTHER TRADES TO LEAN TOOLS
SPECIFIC CLEANING RECOMMENDATIONS	OR MATERIALS AGAINST THE GLASS SURFACE
DO CAUTION OTHER TRADES AGAINST ALLOWING	DO <b>NOT</b> ALLOW SPLASHED MATERIALS
OTHER MATERIALS TO CONTACT THE GLASS	TO DRY ON THE GLASS SURFACE
DO WATCH FOR AND PREVENT CONDITIONS	
THAT CAN DAMAGE THE GLASS	
DO READ THE ENTIRE GANA BULLETIN ON GLASS	
CLEANING BEFORE STARTING TO CLEAN GLASS	

#### 3. CARE DURING INSTALLATION

Cleaning of glass and windows must be done and monitored during all stages of installation and construction. Upon arrival to the jobsite and installation, windows and glass should be wiped down and cleaned. During the construction phase, cleaning of the glass and windows should be done by soaking with clean water, then applying a mild soap solution to loosen any dirt, dust, and debris. Use a non-abrasive or cloth brush to apply a non-abrasive cleanser to the glass. Before the cleanser becomes dry, use a squeegee and dry the glass. After drying the glass and window frame, a blue max or similar protective film may be applied to protect from new construction debris, dust, paint, welding spatter, or contaminates; these must be tested prior to application to avoid damaging the finish.

**NOTE:** Make sure not to hit, nick, or scratch glass with any metal or sharp object.



#### 4. ANODIZED ALUMINUM CLEANING AND MAINTENANCE

#### 4.1 General Cleaning

Cleaning products for terrazzo, cement, plasters, and many cleaning materials used to clean masonry as well as many other materials are very harmful to anodized and painted finishes and should not be allowed to come in contact with the window system. In the event that any does come in contact, it should be removed immediately with mild soap and water. Start above the material and soak the entire surface with a water and mild soap solution to remove soil and large pieces of debris. Continue by wiping with a non-abrasive brush in a horizontal manner and then a vertical (top to bottom) motion. Rinse the surface with clean water and dry with a clean non-abrasive cloth.

#### 4.2 Removal of Debris and Oils

Cleaning of anodized aluminum surfaces should be in accordance with AAMA 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum." Use of duct tape, masking tape, or similar products on painted aluminum surfaces will produce permanent adhesion of tape to the finish. Upon removal of the tape, this adhesion may cause the finish to fail to adhere. If protective coatings are required, these should be tested prior to application and removed prior to using field applied sealants during installation. Always refer to the protective coating manufacturer for compatibility of different finishes.

**ATTENTION:** Never use duct or masking tape on painted aluminum surfaces.

#### 5. PAINTED ALUMINUM CLEANING AND MAINTENANCE

#### 5.1 General Cleaning

Cleaning products for terrazzo, cement, plasters, and many cleaning materials used to clean masonry as well as many other materials are very harmful to anodized and painted finishes and should not be allowed to come in contact with the window system. In the event that any does come in contact, it should be removed immediately with mild soap and water. Start above the material and soak the entire surface with a water and mild soap solution to remove soil and large pieces of debris. Continue by wiping with a non-abrasive brush in a horizontal manner and then a vertical (top to bottom) motion. Rinse the surface with clean water and dry with a clean non-abrasive cloth.

#### 5.2 Removal of Debris and Oils

Cleaning of painted aluminum surfaces should be in accordance with AAMA 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally Finished Aluminum." Use of duct tape, masking tape, or similar products to painted aluminum surfaces will produce permanent adhesion of tape to the finish. Upon removal of the tape, this adhesion may cause the finish to fail to adhere. If protective coatings are required, these should be tested prior to application and removed prior to using field applied sealants during installation. Always refer to the protective coating manufacturer for compatibility of different finishes.

**ATTENTION:** *Never use duct or masking tape on painted aluminum surfaces.* 

#### 6. MAINTENANCE SCHEDULE FOR WINDOWS AND SLIDING DOORS

#### 6.1 Quarterly

Blow or vacuum out dust, dirt, and debris from sliding track and sills of the windows.

Remove any debris within the window system, as it may cause deficiency in hardware operation.

Clean sand or debris from all working mechanisms: hinges, latches, limit stops, rollers, and any specialty parts.

Polish external hardware to protect the finish. Non-abrasive products can be purchased at most local retailers.

#### 6.2 Annually

Blow or vacuum out dust, dirt, and debris from the sliding track and sills of the windows.

Remove any debris within the window system as it may cause deficiency in hardware operation.

Clean sand or debris from all working mechanisms: hinges, latches, limit stops, rollers, and any specialty parts.

Polish external hardware to protect the finish. Non-abrasive products can be purchased at most local retailers

Check exterior perimeter caulking and interior seals and repair as needed. Adjust hardware to allow for proper engagement, operation, and performance.

#### 6.3 Frequently

Wash exterior and interior windows and glass per the above-mentioned methods. Be aware not to scratch or damage material or glass.

Blow or vacuum out dust, dirt, and debris from the sliding track and sills of the windows.

Lubricate and oil all rollers, hinges, and moving hardware.

Lubrication should be applied after 1200 cycles per operating hardware set.

Windows, Patio Doors, Storefront Doors, and Stock Lengths by Boyd.

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