



Thermal Aluminum Care & Maintenance Guide

Introduction

Arcadia Custom Thermal Aluminum products require regular and proper inspection, cleaning and maintenance before, during and after installation in order to maintain their original appearance and performance. Following these care & maintenance instructions will help protect against nullifying your Thermal Aluminum Limited Warranty. Contact your retailer with any questions you may have.

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Storage and Installation Care

In an effort to protect your anodized and painted Arcadia Custom aluminum products, careful care must be taken to install the product properly, to protect it during construction, and to clean and maintain all products with the appropriate materials for their lifetime.

Prior to installation, store products in a clean, dry cool and protected area away from construction equipment and debris.

Your Arcadia Custom aluminum products should be installed by qualified installers. Installations instructions are available from your retailer or by visiting www.arcadiacustom.com. After installation, have all products professionally cleaned, including screens.

In addition to properly installing Arcadia Custom aluminum products, additional steps are recommended to ensure optimum performance and prevent corrosion. If not kept clean, window sills and door thresholds are notably prone to surface corrosion.

1. Galvanic corrosion occurs when two different metals are placed close to or in direct contact with each other. When an electrolyte is present, such as moisture (especially salt water), the two metals are "bridged", which forms an electrical couple. The result is a white, chalky buildup at the point of contact between the two metals.

- Prevention
 - a. Isolate different metals from each other using inert, non-reactive materials.
 - b. When cleaning, thoroughly dry the product and make sure to remove all moisture from the surrounding vicinity.
- 2. Caustic corrosion occurs when other chemical and materials come into contact with aluminum products. Among the various chemicals that may damage the products, stucco and concrete are the most common. The caustic agents in these materials, as well as other chemical agents, can permanently damage your doors and windows if they are not thoroughly cleaned immediately.
 - Prevention
 - a. Arcadia Custom highly recommends the use of protective barriers such as tape or box frames during installation, and thoroughly cleaning the material once the unit is installed.
 - b. Immediately clean the material if it comes into contact with any corrosive agents
- 3. Pitting corrosion is a localized form of corrosion, which results in spots and/or pits. Once the attack begins, the corrosion can completely penetrate the material in a very short period of time. This type of corrosion is most common in areas near large bodies of saltwater.
 - Prevention
 - a. Monitor and control chloride concentration, pH and temperature exposure.
 - b. Keep clear of stagnant fluid.
 - c. Use cathodic and/or anodic protection.
 - d. Keep material clean and minimize exposure to corrosive contaminants.

Care and Maintenance Tips & Reminders

Use our tips and reminders below when cleaning and maintaining your Arcadia Custom aluminum products.

- Remove and lay screens flat in a clean area. Leaning on screens may damage them.
- Combining cleaners or solvents can be dangerous and reduce effectiveness. Don't mix them.
- When caring for and maintaining large products, always get assistance from others to avoid injury.
- When cleaning products above the ground level take extra caution.
- Follow all directions for all cleaning products used. Read all warnings, cautions, disposal instructions, ventilation, safety gear needed and other information provided. Follow manufacturers recommendations for mixing and diluting cleaners.
- Never allow aggressive cleaners to spill onto aluminum frames. Rinse and dry off immediately.
- Do not allow cleaners to puddle or collect on the edges of your glass or glazing materials.
- Caring for and maintaining your products should be done in comfortable weather. We recommend not cleaning during extreme temperatures. Heat accelerates chemical reactions and may evaporate water from solution. Extremely low temperature may give poor cleaning effects. Cleaning under adverse conditions may result in streaking or staining. Ideally, cleaning should be done in shade at moderate temperature.
- Excessive rubbing or scouring can scratch glass or damage materials, therefore we recommend not doing this. Over cleaning or excessive rubbing can do more harm than good. Do not scour painted surfaces.
- To avoid cleaning solutions staying on products too long, we recommend cleaning one product at a time.
- Pressure from power washers or garden hoses can cause seal failure and allow water to get through your products. We recommend not using them.
- Using metal tools and abrasive cleaners can damage aluminum frames and can scratch your glass. We recommend avoid using them.
- After market tints or films can cause damage to the glass or the sealant used to secure the glass to the frame of your product, therefore we recommend not using them.
- Strong solvents or strong cleaner concentrations can cause damage to painted surfaces.
- Avoid abrasive cleaners. Do not use household cleaners that contain abrasives on painted and anodized surfaces.
- Abrasive material such as steel wool, abrasive brushes, etc., can wear and harm finishes.
- Avoid drips and splashes. Remove run downs as quickly as possible.

- Do not substitute a heavy-duty cleaner for a frequently used mild cleaner.
- Never use paint removers, aggressive alkaline, acid or abrasive cleaners. Do not use trisodium phosphate or highly alkaline or highly acid cleaners. Always do a test surface.
- To prevent marring, make sure cleaning sponges, cloth etc., are grit free.

Care and Maintenance Tools & Cleaning Solutions

Use these various tools and cleaning solutions when cleaning and maintaining your Arcadia Custom aluminum products.

- Plain water with mild soap, detergent or baby shampoo
- Isopropyl alcohol
- Commercial glass cleaning products
- Solvents that are appropriate for difficult to remove stains such as kerosene, turpentine or white spirit
- Non-etching chemical cleaner
- Wax-based polish
- Soft bristle brush
- Spray bottle
- Vacuum cleaner
- Sponge
- Spray silicone
- Several clean, soft, non-abrasive, absorbent chamois or dry cloths
- Plastic putty knife (for paint or putty removal)
- Plastic wrap (for label removal)

Do not use harsh cleaners such as alkalis, thinners or ammonia. Do not use chemicals or substances that could remove the color or gloss of the paint. Do not use vinegar based cleaners, citrus based cleaners (Lemon, etc.), industrial strength cleaners or abrasive cleaners. Do not allow any cleaning solutions to dry on your products. Follow the cleaning product manufacturer's warning labels and instructions.

Inspection and Cleaning Instructions

For your window sashes, door panels, weather-strips, weep systems and screens, follow these inspection and cleaning instructions.

Window Sashes and Door Panels

We recommend you inspect and clean your window sashes and door panels at least once a year in non-coastal areas or at least once a month for coastal areas using the following instructions.

1. Inspect glass for any cracks.
2. Inspect stiles and rails for any damage.
3. Inspect for moisture or fogging between glass panes of insulated glass units. Fogging is usually visible on cold mornings.
4. Inspect the sealant at the lower corners of the frame to ensure that it is still intact. Repair with 100% silicone sealant as needed.
5. Replace or repair damaged or failed glass.

Weather-strips

We recommend you inspect, clean and repair your weather-strips at least once a year in non-coastal areas or at least once a month for coastal areas using the following instructions. Damaged weather-strips can lead to water penetrating into your home and also causes energy loss due to air infiltration. Replace weather-strips that are missing, torn, cracked, brittle, discolored, gummy, or that no longer "bounce back" when pressed down on.

1. Don't use sharp items near any weather-stripping.
2. For light cleaning:
 - Use water and mild soap using a damp cloth.
 - Rinse and dry thoroughly. Repeat if necessary.

3. For non-water-soluble cleaning:
 - Test a small area with your lacquer thinner first to avoid product damage.
 - Use a small amount of lacquer thinner on a soft cloth. Repeat if necessary.
 - Use water with mild soap, then rinse. If unsuccessful, consider replacing your weather-stripping.
4. For repair or replacement:
 - Remove your loose or damaged weather-strip.
 - Using 100% silicone sealant, apply thin bead of it into the kerf.
 - Reinstall your weather-strip.
 - Use tape holding it in place for 24 hours.
 - Carefully remove the tape.

Weep Systems

We recommend you inspect and clean your weep systems at least once a year (or at least once a month for heavy rain locations). The structure around your windows and doors is susceptible if water does not drain quickly from the sill through your weep systems. Use the following instructions to inspect and check your product's weep holes for blockage:

1. On a regular basis, clean the sill track with a vacuum or wipe it thoroughly with a damp cloth
2. To see if there is any blockage in your weep systems, pour about a cup of water into the interior sill track. If the water comes out through the exterior weep holes, then the system is clear and not blocked. If the water does not come through the exterior weep holes, then proceed to the next step.
3. Gently insert a thin wire into the exterior weep hole in the frame or track to remove the blockage but not too far as that may risk damaging any glass.
4. Go back and do the first step until water runs clear to the exterior.

Screens

We recommend you inspect and clean your screens at least once a year using these instructions:

1. Inspect your screens for cuts, scratches, holes, or looseness.
2. Replace or repair damaged screens, as needed.
3. To clean, remove your screen and place it either into a tub or shower or a place on your lawn or hard surface.
4. Using a soft bristle brush, gently spray with water and lightly brush until clean.
 - For hard to remove dirt, clean again but this time use water with mild soap.
 - Rinse the screen material with a gentle spray of water.
5. After the screen is dry, reinstall it.

Aluminum Cleaning

We recommend you inspect and clean the aluminum surfaces of your Arcadia Custom aluminum products at least once a year in non-coastal areas or at least once a month for coastal areas. Follow these instructions for inspecting and cleaning your aluminum products with anodized or painted finishes:

1. Inspect the surfaces of all of your aluminum products for scratches or cracks in the finish.
2. Close attention needs to be given for bare aluminum (edges and weep holes) and areas of no finish.
 - Over time, bare aluminum will oxidize (oxidation is a natural occurrence that produces a coating that wipes off as a dark, metallic-looking residue). To address oxidation, do the following:
 - To remove oxidation, use a fine scratch pad or steel wool to gently remove it. DO NOT scratch finished surfaces.
 - Dust or vacuum residue and wipe clean with damp cloth.
 - For optimum protection against oxidation, apply a coat of high quality car wax over the enamel or anodized finish.
3. To clean your anodized or painted aluminum surfaces (be careful not to clean too aggressively):
 - The washing should be done with uniform pressure, cleaning first with horizontal motion and then with vertical motion.
 - Using water and a sponge wipe the surfaces.
 - Using water and mild soap, sponge or lightly brush the surfaces.
 - Rinse and wipe dry with soft cloth.
4. If stubborn soil exists after initial cleaning, then follow these instructions:
 - Using a clean soft cloth or non-abrasive nylon cleaning pad, wipe the surfaces with a mild solvent (mineral spirits) to remove any grease, sealant, caulking compounds, etc. Stronger solvent or solvent containing cleaners may be deleterious or have a softening effect on paints. To prevent harm to the finish, these types of solvent or emulsion cleaners should be spot tested first.
 - Dry with a separate clean cloth.
 - Clean residue with sponge, mild soap and water, rinse, and let dry.

Do not use harsh cleaners such as alkalis, thinners or ammonia. Do not use chemicals or substances that could remove the color or gloss of the paint. Do not allow any cleaning solutions to dry on your products. Follow the cleaning product manufacturer's warning labels and instructions.

Additional information may be provided by The Architectural Aluminum Manufacturers Association (<http://aamanet.org>). They recognized the need for the aluminum industry to provide information on the care and maintenance of exterior wall finishes and released a publication entitled "Voluntary Guide Specification for Cleaning and Maintenance of Architectural Anodized Aluminum, AAMA 609.1-1977." This specification outlines methods, equipment, and materials to clean anodized aluminum after construction and for subsequent, periodic maintenance. The methods outlined are applicable to architectural products fabricated from both rolled and extruded shapes, including window and door frames, store fronts, and entrances, curtain walls, mullions, hand rails, flag poles, and hardware.

Hardware Cleaning

To maintain and restore proper operation to moveable parts of your Arcadia Custom aluminum products, as well as offer corrosion protection we recommend you inspect and clean your hardware at least twice a year in non-coastal areas or at least once a month in coastal areas.

When caring for and maintaining the hardware of your products, we recommend you do the following:

1. Clean any dirt or debris
2. Tighten any loose screws
3. Replace any damaged hardware

NOTE: The following solutions may damage protective hardware finishes. We recommend you don't use any of these:

1. Window cleaners
2. Paint Removers
3. Vinegar-based cleaners
4. Citrus-based cleaners (lemon, etc.)
5. Brick or siding washes
6. Any other industrial or abrasive cleaners
7. Use caution with silicone-based sprays
 - Apply only in small amounts and do not overspray. Wipe off excess lubricant to avoid staining and/or damage to other window or door parts. Silicone may cause some hard-plastic parts to become brittle.
 - Some lubricants such as WD-40 or other equivalents should not be used because they attract dirt and inhibit performance.

Follow the instructions below for cleaning your hardware. Always clean your hardware really well prior to lubricating it.

1. For easier cleaning, remove your hardware.
2. Using water and mild soap with a sponge or soft cloth, clean your hardware then rinse and wipe dry.
3. Using a soft bristle brush, gently scrub stubborn dirt off your hardware.
4. Using high quality non-abrasive car wax, apply several coats of it to your hardware.
5. Re-install your hardware.

Lubricating Hardware

To maintain and restore proper operation to moveable parts of your Arcadia Custom aluminum products, we recommend you inspect and lubricate your hardware anytime windows are not opening or closing properly or at least once a year in non-coastal areas and at least once a month in coastal areas.

Different hardware requires different types of lubricants. The instructions below will identify the suggested lubricants as well as specifics on which types to use and how to apply them to individual Arcadia Custom aluminum products.

1. Lithium or White Grease
 - Using lithium or white grease on metal surfaces protects them against corrosion and reduces friction and wear on moving parts
2. Light Oil
 - Use light oil like 3-In-One for rotating or sliding joints
3. Graphite (spray black carbon powder)
 - Use spray black carbon powder graphite for door hinges and lock key ways. To avoid possible staining of your hardware parts, apply the graphite carefully.
4. Spray Silicone
 - Use spray silicone for your jamb liners, slider tracks and weather-strip. We recommend not spraying directly onto your hardware surfaces. Instead spray onto a cloth and then apply.

For lubricating hinges, lubricate with light oil (3-In-One oil or equivalent).

For lubricating casement, awning, and hopper windows follow these instructions:

1. Using a small screwdriver Allen wrench remove the handle by removing the set screw on your crank handle.
2. Remove the plastic cover gently.
3. Apply light oil to rotating joints such as hinge pivots.
4. Apply lithium grease to operator gear mechanisms.

For lubricating sliding door tracks follow these instructions:

1. Remove the panels on your sliding doors carefully. If it is too difficult then we recommend hiring a professional to do this for you.
2. Using a soft cloth, wipe your tracks or vacuum them.
3. Spray the silicone onto a dry, soft cloth and wipe your jamb liners, slider tracks and weather-strips. We recommend not applying silicone to pile (fuzzy) weather-strips.
4. Re-install your panels then slide back and forth to check for improved operation. Again, if it is too difficult to re-install then we recommend hiring a professional to do this for you.

For lubricating your sliding door rollers and all of your multipoint locking hardware follow these instructions:

1. Remove the panels on your sliding doors carefully. If it is too difficult then we recommend hiring a professional to do this for you.
2. Tip the door panel for better access to the rollers on the bottom.
3. Using light oil, lubricate the rollers where the shaft goes through the middle of the wheels.
4. Lightly oil the multi-point lock at each latch point.
5. Using a graphite lubricant, spray the keyway (of all keyed cylinders).

Glass Cleaning

Clean the glass surfaces of your Arcadia Custom aluminum products regularly using the following glass cleaning instructions. You may find it easier to clean your glass by first adjusting your window sashes and door panels for easier access. Some window sashes can be removed (horizontal sliding windows), while others can be opened (casements, awnings, hoppers).

Regular Cleaning

We recommend you clean all of your glass surfaces at least once a year in non-coastal areas or at least once a month for coastal areas using these instructions:

1. For best results, don't clean glass when it's exposed to direct sunlight.
2. Using clean water, rinse the glass surface from top to bottom. As stated in our tips section, we recommend not using garden hoses or high-pressure devices.
3. Using water and mild soap on a sponge or soft brush, clean with uniform pressure horizontally, then vertically.
 - Quickly rinse and dry any run-down. Don't let the cleaning solution collect or puddle on the glass surfaces of your products.
4. Promptly rinse thoroughly with clean water (often sponging while rinsing can be effective). Don't let the cleaning solution dry on the glass surface of your products.
5. Using a dry cloth or chamois, wipe dry the frame and sill (don't use the same cloth that was used on your glass).
6. If necessary, repeat the above instructions until clean.

Removing Stubborn Stains

For removing stubborn stains on your glass surfaces, use a commercial glass cleaning product using these instructions:

1. Using a commercial glass cleaner, apply a small amount of it directly to the stain. Avoid spilling or dripping down your glass.
2. Some persistent stains may need higher strength cleaning solutions that contain active ingredient chemicals such as toluene, xylene, mineral spirits, or naphtha. Take special care to follow instructions carefully when using these types of cleaners.
3. Use water and baking soda or water and washing soda to remove oil and grease stains.
4. Rinse thoroughly with clean water and dry.

Removing Paint

Follow these instructions for removing paint:

1. Using a solution consisting of one gallon warm water and one tsp of baby shampoo, soak the dried latex paint drips.

2. Using a damp cloth or sponge, wipe the paint drips.
3. Scrape gently with a plastic putty knife as needed. Repeat soak and scrape.
4. If necessary, repeat the above instructions until clean.

Removing NFRC and Product Labels

You may need to remove the NFRC and Arcadia Custom aluminum product labels before completing your home project. Follow these instructions for removing these labels:

1. Slowly peel the label away from one corner.
2. Moisten labels that tear or stick with soapy water then using a plastic putty knife, gently scrape to remove your labels.
3. Stubborn labels can be soaked with soapy water and covered overnight with plastic wrap, and then removed the following day with a plastic putty knife.

You can find additional glass cleaning solutions by reading information from the Glass Association of North America (www.glasswebsite.com) or PPG (www.ppg.com).

This Care & Maintenance Guide may change periodically without notification. Check the Arcadia Custom website (www.arcadiacustom.com) for the most current version.