Sun Window History

Sun traces its beginnings back to the 1930's as the V.E. Anderson Manufacturing Company. The first manufactured product line was a self-storing wood storm window developed by Victor Anderson, Senior. Mr. Anderson and his wife were the original founders of the company and their ideas and commitment to quality windows were the building blocks for today's line of products.
Kentucky Crafted

Sun Windows are carefully crafted in Owensboro, Kentucky to provide high-quality, performance and value. Sun has been building windows since the 1930’s and is a member of the elite WDMA Hallmark Certification Program that helps insure that our products are manufactured to the highest standards.
Regional Focus

Sun is a regional manufacturer that has chosen to limit their area of service to better serve their customers. This increases Sun’s flexibility in providing the best possible product, in a timely fashion, at a very competitive price. Regional focus also means that Sun is very supportive of the regional economy and the well-being of our community.
State Of Art Manufacturing

Sun has always pursued the latest technologies and developments in materials, components and manufacturing processes to integrate into our products. A tour of the Sun factory will reveal the implementation state of the art equipment and processes that help us make our products better.
Made To Order

Sun windows and doors are Made-To-Order. This means you get the windows and doors you want, with the features and options of your choice . . . not what’s sitting on some shelf. You don’t pay extra for this. It is Sun’s standard. In fact, you will find Sun to be competitively priced. And, if you need a custom size or shape, Sun is ready to help you get just what you need.
SunClad Exterior

SunClad is the name we give our heavy extruded aluminum exterior. It is used on both the exterior frame and sash components. It provides exceptional strength and long life for the product.

It is available in our eleven Standard colors as well as in a wide range of Feature colors or even in a custom matched color.
SunClad Exterior
- Superior Strength - .060* & .045*
- Will not warp
- Structurally tested to 75 psf**
- More Durable
- Protects interior wood components
- Protects home better
- Water Management System

Competitor Roll-Form Aluminum
- Little Strength - .024
- No additional strength
- Less Durable
- Dents easily
- Corner seams have weak seal
- Only moderate weather protection
- No Water Management
- Color variation from sash to frame

Competitor Painted Wood
- Paint adds no strength
- Least Durable
- Repaint regularly
- No Water Management
- Color variation from sash to frame
Fail-Safe Water Management System

Two levels of protection:
1. Glazing seal diverts water over the outside face of the sash.

2. Back up venting system within the sash keeps water or moist air from becoming trapped, protecting the insulated glass against seal failure and the interior wood components from deterioration.
Sun’s In-House Powder Coating Facility

Sun’s Powder Coating Facility has been implemented to off the high-quality and dependability of powder coating on our SunClad products. Our standard finish will meet AAMA 2604 requirements. We also offer AAMA 2605 finishes for application that demand this higher standard. Powder Coating also offers a wide range of standard colors and the ability to custom match.
- Tougher Than Conventional Painted Finishes
- Electrostatically Applied
- Baked On / Long Life Finish
- Broad Range of Standard Colors
- Many Additional Feature Colors
- Metallic and Anodic Finishes
- Custom Color Matching Available
- Standard 2000 Series Finish Meets AAMA 2604 and has a 20 Year Warranty
- Optional Finish 3000 Series Finish Meets AAMA 2605 and has a 30 Year Warranty
- Environmentally Friendly
- Virtually No VOCs
- No Lead or Chromium
SunClad Exterior Colors
Sun’s High Durability Powder Coat Finish

- 21 Standard colors
- 12 Feature colors
- 28 Metallic finishes
- Custom color match

You also have the option of using various color combinations to create a unique visual accent.

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (Bone White)</td>
<td>YA200U</td>
</tr>
<tr>
<td>Gray (Dove Gray)</td>
<td>YL201U</td>
</tr>
<tr>
<td>Charcoal</td>
<td>YL200U</td>
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<tr>
<td>Black</td>
<td>YN200U</td>
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<tr>
<td>Hartford Green</td>
<td>YK200U</td>
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<tr>
<td>Green (Dark Green)</td>
<td>YK203U</td>
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<tr>
<td>Light Green</td>
<td>YK201U</td>
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<tr>
<td>Milk White</td>
<td>YA201U</td>
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<tr>
<td>Sandstone</td>
<td>YD201U</td>
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<tr>
<td>Night Hawk Gray</td>
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<td>YM201U</td>
</tr>
<tr>
<td>Claret Red</td>
<td>YG203U</td>
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<tr>
<td>Boysenberry</td>
<td>YG204U</td>
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<tr>
<td>Military Blue</td>
<td>YJ201U</td>
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<tr>
<td>Ivory (Antique Bronze)</td>
<td>YD200U</td>
</tr>
<tr>
<td>Sand (Medium Bronze)</td>
<td>YD203U</td>
</tr>
<tr>
<td>Bronze</td>
<td>YM202U</td>
</tr>
<tr>
<td>Sepia Brown</td>
<td>YM204U</td>
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<tr>
<td>Red (Redwood)</td>
<td>YG202U</td>
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<tr>
<td>Brick Red</td>
<td>YG201U</td>
</tr>
<tr>
<td>Midnight Blue</td>
<td>YJ200U</td>
</tr>
</tbody>
</table>
Energy Efficient

All Sun products are designed and built to provide superior energy saving performance. Sun continually researches energy-saving technology and refines its products to provide the best possible performance and durability. The energy-saving features built into Sun Windows and Doors saves you money on heating and cooling your home and, at the same time, provides a more comfortable living environment.
STOP AIR LEAKS!
Air Leaks Mean Discomfort and Reduce Energy Efficiency

SunClad Double Hung
Constant Contact Floating Jamb Liner

- Constant Contact Between Jamb Liner and Sash
- Air Tight Seal
- Air Infiltration/Leakage Rating = 0.03
- 10 Times Better Than Industry Standard
- U-value PLUS Low Air Infiltration = Energy Efficiency
Sun Advantage Insulated Glass with Duralite™ Spacer Technology

All Sun products use Sun Advantage Insulated Glass with Duralite™, the industry leading non-metallic warm-edge spacer system developed by TruSeal Technologies. This system provides superior thermal performance, excellent insulated glass seal and reduced condensation.

Superior Thermal Performance
- Lower Conductivity - less thermal transfer
- Greater Comfort
- Highly Energy Efficient
- Less stress on the glass seal

Superior Glass Seal
- Wrap-around seal
- Resists Seal Failure
- Excellent Argon Retention

Reduces Condensation
- Lower Conductivity - 50% better than other warm-edge spacers
- Lower conductivity means less condensation

High Performance LowE Glass with Argon
- Increases the thermal efficiency of the window
- Saves you money on energy bills
- Makes your home more comfortable

Warranty - 20 Years
Integral Nailing Fin

SunClad™ products are designed with a rigid nail fin that is formed as an integral part of the exterior frame extrusion. This provides for a very strong and stable installation. The nail fin can be scored and removed for mulling and retro-fit applications.
SunClad Exterior Trim & Accessories

Various aluminum extrusions for exterior trim, mull caps, expansion mulls, drip cap, angle bays & bows, SDL bars and more.
Interior Wood & Finishes

Beautiful, clear Ponderosa pine, suitable for staining or painting. Treated with wood preservative for resistance to insects and decay. Available unfinished, painted white interior, custom matched interior color, or custom stained.

Alternate wood species, such as poplar or oak, are available by custom quote.
SunClad Casement

- SunClad Extruded Aluminum Exterior
- High Grade Pine Interior
- Integral Nail Fin
- Insulated Glass with Duralite™ Spacer
- Sun Advantage Insulated Glass
- Energy Efficient
- Grille Systems available
- Removable Glass Stops
- Fail-Safe Water Management System
- Complete Weatherseals
- Sill mounted Folding Handle operator
- Dual Arm Operator
- Single Lever - Multi-Point Sash Lock System
- Adjustable Hinge
- Choice of Hardware Finishes
- Standard & Custom Sizes
SunClad USA
Operating Casement Archtop

The SunClad USA Casement is also available in an operating archtop version.
Blinds Between Glass
SunClad Casements and Fixed Lites offer the option of an aluminum blind system that is housed between the insulated glass unit and a removable interior glass panel. A magnetic operator, located on the removable glass panel, activates the blinds.

- Tilt Only Adjustment
- Removable Glass Panel
- No Grilles
- Remove Screen To Operate
Roll-Screen
with Wood Veneer

A retractable roll-screen is available for interior mounted applications. Nicely concealed with a wood veneer, this screen can be finished the same as the rest of your wood interior.
SunClad Double Hung
Easy-Tilt & Comfort-Tilt

- SunClad Extruded Aluminum Exterior
- High Grade Pine Interior
- Integral Nail Fin
- Insulated Glass with Duralite™ Spacer
- Sun Advantage Insulated Glass
- Energy Efficient
- Grille Systems
- Removable Glass Stops
- Fail-Safe Water Management System
- Complete Weatherseals
- Tilt-In Sashes
- Recess Mounted Locks and Tilt Latches
- Positive Contact Floating Jamb & Balance System
- Choice of Hardware Finishes
- Standard & Custom Sizes
SunClad USA
Easy-Tilt vs Comfort-Tilt

- 5/4 Bull Nose Sash Lock Rail vs 5/4 Flat Face Sash Lock Rail
- More Hardware Finishes vs Few
Sunclad Easy-Tilt Double Hung

**Frame Tear-Out Replacement**

Why a Frame Tear-Out Instead of typical replacement?

- Maintain Your Daylight Opening
- Replace rotten or damaged frame and/or sill plate
- Correct any original installation issues
- Fully Sunclad Exterior, including Sunclad Brick Mold and Casing
- Sunclad Exterior Trim Color matches the window
- Sunclad Exterior Trim has clean appearance
- All the benefits of Extruded Aluminum Exterior with Sun’s Powder Coat Finish
- Maintain the original appearance of the home
- Keep your existing interior trim (in most cases, if desired)
- Insures best window performance by replacing the whole window
- Change window style if desired
SunClad USA
Double Hung
Replacement Window

The USA Easy-Tilt Double Hung Replacement Window is Sun's premier, clad-wood, double hung replacement window. It is based on the design of the new construction USA Easy-Tilt double hung with many of the same features and benefits, but with a frame system that is designed to fit replacement window application.
SunClad USA
Double Hung Sash Pack

Sun's USA Easy-Tilt Double Hung window is also available in a Sash Pack to convert your old wood or clad wood double hungs to our new, energy-efficient windows.

Includes:
- 2 clad wood sashes
- Your choice of Insulated Glass
- Choice of Grille Options
- A pair vinyl jamb liners with spring balance system
- Retaining clips and screws
SunClad
Sash Set Fixed Lite

The Sun Clad USA Sash Set Fixed Lite offers the traditional, wider profile look of a sash in frame window. The plain profile of the sash with its mitered corners and deeper glazing stop provide a simple but classic appeal. It is designed as the standard fixed lite used with our SunClad Casement & Awning windows as well as with SunClad Double Hung windows.

SunClad
Direct Set Fixed Lite

The SunClad USA Direct Set (also called Narrow Frame) Fixed Lite provides maximum daylight opening in a fixed lite frame system. It is designed for standard radius and special shape fixed lite windows. It can also be used for standard fixed lites and transoms in place of the SunClad USA Sash Set Fixed Lite.
Features & Options

- SunClad Extruded Aluminum Exterior
- Powder Coat Finish - AAMA 2604 & 2605
- Many Standard & Feature Colors or Custom Matching
- High Grade Pine Interior with Finish Options
- Integral Nail Fin
- SunClad Exterior Trim
- Sun Advantage Insulated Glass
- Duralite™ IG Spacer
- Low-E with Argon IG - Climate Matched
- UV Protection with Sun Advantage 366
- Variety of Hardware Finishes
- Screens, Screen Frame Types, Retractable Screen
- Grille Systems in many styles and patterns
- Fail-Safe Water Management System
- Complete Weatherseals
- Removable Glass Stops
- Standard & Custom Sizes
- many more . . .
SunClad Radius Windows

The SunClad Radius windows are a series of non-operating, non-opening windows that have a radius arc as at least part of their shape. These special shapes add an attractive accent to any home or building.

Available Styles:
- Round Top
- Arch Top
- Eyebrow
- Quarter Round Top
- Gothic
- Full Circle
- Oval
- Segmented Radius
Interior Radius Casing
Interior casing (or trim) is available for the curved portion of radius windows. The casing is available in four industry standard profiles:

- 356 = 2-1/4”
- 366 = 2-1/4”
- 366w = 3-1/4”
- 444 = 3-1/2”

Plinth blocks and Key blocks are also available to accent the casing.
SunClad Geometric Windows

The SunClad Geometric windows are a series of non-operating, non-opening windows in special geometric shapes. These windows are custom built to your specifications.

Available Styles:
- Rectangle
- Triangle
- Trapezoid
- Parallelogram
- Truncated Hip
- Clipped Corner
- Pentoid
- Hexagon
- Octagon
SunClad Doors
Inswing, Outswing, Sliding and Bi-Fold

SunClad Doors are the perfect compliment to SunClad Windows. Designed to meet the demands of today’s homes, Sun doors are built to stand up to the weather and everyday use. Features include full-view glass door panels or optional solid panel inserts, adjustable hinges, single point or multi-point locking systems, no-warp component construction and an effective water management system.
SunClad Doors
Inswing, Outswing, True French Sliding & Bi-Fold

- SunClad Extruded Aluminum Exterior
- High Grade Pine Interior
- Integral Nail Fin
- Insulated Glass with Duralite™ Spacer
- Sun Advantage Insulated Glass
- Grille Systems available
- Removable Glass Stops
- Fail-Safe Water Management System
- Complete Weatherseals
- No Warp Construction
- Adjustable Hinge System
- Handle Set with Single Point or Multi-Point Locking System
- Full View Glass Panel or Solid Panel Inserts
- Choice of Hardware Finishes
SunClad Bi-Fold Doors

- Bi-Fold Hinge & Glide System by Centor Architectural™
- Weatherproof in closed position
- Panels Accordion in stack for wide clear opening
SunClad Arch Top Door

- SunClad Swinging Door with Arch Top
- Available in Single Panel and 2-Panel French configurations
SunClad Sliding Door
Grille Options

GBGs (Grilles Between the Glass)
Hollow aluminum contoured grille bar.

Wood Grilles
Applied to the interior.

SDLs (Simulated Divided Lite)
A solid aluminum exterior grille bar applied to the glass, a shadow bar (GBG) between the glass and a wood grille applied to glass on the interior.
SDL Options

Available in 5/8”, 1”, 1-1/4”, 2-1/4” bar widths in our standard flat profile. Also available in our raised (putty glazed look) profile in 5/8” and 1-1/4” widths.
Jamb Depth

SunClad windows use a standard jamb depth (thickness) of 4-9/16" (measured from the back of the nail fin to the edge of the interior frame). This accommodates most typical 2 x 4 wall construction. If you need a different jamb depth, Sun can apply a single jamb extension to increase the jamb depth up to 6-9/16". If you require a jamb depth of up to 7-9/16", Sun can achieve this by applying an additional extension up to 1".
Screens

- Standard or Extruded Aluminum Screen Frame
- Powder Coating on Extruded Frame
- Fiberglass woven insect screen
- Typical Screen Mesh (standard on SunVinyl products)
- BetterVue® Screen Mesh (standard on SunClad products)
- UltraVue® Screen Mesh (upgrade)
Sun Advantage Glass - Low Emissivity Coatings

Sun offers four Low-E Insulated Glass packages to match the maximum thermal benefits with your region. All of Sun's Hi-Performance Low-E Insulated Glass units are Argon filled and feature the Duralite™ warm-edge glass spacer system. Both dual glazed (using two pieces of glass) and triple glazed (using three pieces of glass) are available (depending on the product type).

Sun Advantage 270
Heating & Cooling Regions

Sun Advantage 366
Mostly Cooling Regions

Sun Advantage 270 plus
Heating & Cooling Regions w/4th Surface Coating

Sun Advantage 366 plus
Mostly Cooling Regions w/4th Surface Coating
WDMA Hallmark Certified

The WDMA Hallmark Certification Program gives specifiers a method of identifying windows, doors and skylights which are manufactured in accordance with WDMA standards. The WDMA Hallmark is considered a mark of excellence among architects, contractors and other specifiers and is accepted industry-wide. WDMA Standards are referenced by HUD/FHA in their Minimum Property Standards and by many other government agencies in their construction specifications.
NFRC Certification

National Fenestration Rating Council (NFRC) is a non-profit, public/private organization created by the window, door and skylight industry. It is comprised of manufacturers, suppliers, builders, architects and designers, specifiers, code officials, utilities and government agencies. NFRC provides consistent ratings on window, door and skylight products.
More For Your Money

Sun believes that the customer should get more product for their money. Instead of investing in large promotions and advertising campaigns, Sun focuses on putting those dollars directly into the product in the form of higher quality materials, new product component designs, incorporating new technologies into the products and continual refinement of assembly processes. When you buy a Sun product, you are paying for more product, a better product, not advertising that makes our name familiar to you.
Customer Service

But why choose Sun? What makes us any different or better than our competitors? Part of the answer is in our products and the other is in our service. We back-up our products with the services you need... from sales, to delivery, to warranty service, our friendly staff is here to assist you with your questions and needs.
Warranty

All Sun products are covered by a Sun Limited Warranty. There is a warranty for SunClad Windows and Doors, one for SunVinyl New Construction Windows, and one for SunVinyl Replacement Windows. See each warranty for coverage details.
Sun Quote

Sun Quote™ is Sun’s quote and order software system. This powerful application is a practical tool for producing accurate and efficient quotes and then turning those quotes into orders. Sun Quote is available to all Sun Dealers to help you increase your efficiency and profitability through Sun Window sales.
Sun Windows Online

Visit Sun Windows online to access in-depth information on Sun, our products and services.

Go to:
www.sunwindows.com
Sun Windows on Facebook

Visit Sun Windows Facebook page to see photos of recent projects and keep up with the latest happenings at Sun.

Go to: www.sunwindows.com and click on the Facebook logo-link at the bottom of the page.
Avoiding Call Backs - Installation Tip

Avoid Call Backs with these Installation Tips

Sun’s Installation Instructions provide all the information you should need to install our products correctly. However, our Avoiding Call Backs - Installation Tips point out some critical key points and the reasons why you should be sure to implement them into your procedures. Ultimately, it will save you time, money and your reputation by making sure the product is properly installed.
After Installation / For The Masonry Applicator

Required Masonry Opening Clearances
3/8” to 1/2” Between Bottom of Sill and Masonry
1/4” Between Sides and Masonry

Apply Backer Rod & Sealant

Why?

The main wall structure will expand, contract and move independently and at a different rate than the masonry wall, often resulting in some shifting and settling of the main wall. This causes the bottom of exterior frame of the window to contact the masonry wall which in turn exerts upward pressure against the window sill, deforming it and forcing it to contact and bind against the bottom of the sash. This damages the window and prevents it from operating correctly.
Level the Sill:

- Verify that the sill is level
  If not, shim or resurface to level

Avoiding Call Backs Tip!

Leveling is the first step in making sure the product is installed square. A level sill insures that water will drain properly and is the foundation for sash or panel to frame alignment.
The Product Must Be Installed Square: Casement

Diagonal Measurements Must Be Equal To Each Other within 1/16th of an Inch

Why?

If the casement window is not installed square, the alignment of the sash in relationship to the product frame will be off. This will cause misalignment between the latches and keepers, preventing proper closure. Out of square will also cause the top hinge pin to interfere with sash closure. It is also possible that the adjustable hinges will not have enough adjustment to allow the square sash to fit in the out of square frame.
The Product Must Be Installed Square: Double Hung

Diagonal Measurements Must Be Equal To Each Other within 1/16th of an Inch

Why?

If the double hung window is not installed square, the alignment of the sashes in relationship to each other and the jamb liners will be off. This will create gaps between the sashes and the jamb liners, head and sill and the sash lock rails will not be parallel to each other. This will cause air leakage, possible water leakage and sash drift.
True Framing Plane

Exterior Wall Must Be In True Plane

Why?

Failure to have a True Framing Plane will create a twist in the product frame which will make it difficult to close properly and latch.

Check by running two strings diagonally across the opening with the corners flush against the exterior wall surface. One string will overlap the other in the center. If the strings don’t touch in the center, or if one pulls the other down, the wall is not framed in a true plane. Double check by reversing the overlapping string.
Install Long Screw Through Hinge:

Install one long screw through a hole in the top hinge into the wall structural framing.

Select a hole that provides solid anchoring to the wall framing.

Why?
Anchor the hinge to the wall structural framing will provide support to the door frame and panel and help prevent sagging of the panel. This will help keep the panel properly aligned and will insure that it will operate and close correctly and properly contact the weather seals, minimizing weathering issues.
Install A Door Sill Pan
Install a Sill Pan as part of the door installation

Why?
Installing a Sill Pan, prior to installing a door, can help prevent damage caused by water infiltration from a variety of potential sources.
Install A Door Sill Pan

Install a Sill Pan as part of the door installation

Why?

Installing a Sill Pan, prior to installing a door, can help prevent damage caused by water infiltration from a variety of potential sources.
**Install Long Screw In Hinge**

Install One Long Screw In The Top Two Hinges Into Wall Structural Framing.

Select hole that provides solid anchoring to the wall framing.

**Why?**

Anchoring the top two hinges to the wall structural framing will provide support to the door frame and panel and help prevent sagging of the panel. Keeping the panel properly aligned will insure that it will operate correctly and contact the weather seals, minimizing weathering issues.
After Installation / For The Masonry Applicator

Required Masonry Opening Clearances
1/2” Between Bottom of Window Sill and Masonry
1/4” Between Sides and Masonry

Apply Backer Rod & Sealant

Why?

The main wall structure will expand, contract and move independently and at a different rate than the masonry wall, often resulting in some shifting and settling of the main wall. This causes the bottom of exterior frame of the window to contact the masonry wall which in turn exerts upward pressure against the window sill, deforming it and forcing it to contact and bind against the bottom of the sash. This damages the window and prevents it from operating correctly.