VINYL-COMPOSITE
Cost Efficient, Energy-Efficient Living

SOLAR INNOVATIONS®
ARCHITECTURAL GLAZING SYSTEMS
As an industry leader for more than 20 years, Solar Innovations® has a long history that is rooted in the heart of manufacturing with a deep passion for the American dream. As a single source provider of custom glass structures, skylights, windows, doors, and more, Solar Innovations® strives to endlessly innovate and design custom products throughout the world. Our products continue to develop and grow as a direct result of our dedication to the industry and the creativity of our customers.

By investing in our team and customers, we are proud to turn dreams into reality. All of our American made products are designed and manufactured at our campus in Pine Grove, PA, allowing for more flexibility to provide superior products and services. In addition, most of our engineering, product testing, and product designing take place within our facility. By producing as many components as possible in-house, we have greater control over quality, lead times, and cost, which ultimately achieves better results for our customers.

Although Solar Innovations® comes from small and humble beginnings, we now reside in a 400,000-square-foot corporate and manufacturing space. With a three-building campus located on over 36 acres of land, our company continues to develop and grow by creating innovative designs and engineering new product lines. The Solar Innovations® team strives to forge its path into the future by promoting a strong spirit of unity, with the desire to be better today than yesterday.

**INNOVATIVE**
Solar Innovations® - it’s in the name. By constantly introducing new ideas with creative ways of thinking, our decisions take standard products to the next level. No project is too big or too small for us to handle.

**DURABLE**
The strength and durability of our products are a promise. The majority of our applications are impact tested in-house, ensuring that every project can withstand the test of time in any environment.

**HIGH-PERFORMING**
At Solar Innovations®, we are about superior results. Our company currently offers the largest, impact rated folding glass walls on the market and constantly strives to create the highest quality product possible.

**EASY TO OPERATE**
All of our applications are user-friendly and straightforward. No matter the shape, size, or type of project you may have, our products remain practical and manageable for the ultimate customer experience.
Why Solar Innovations®?

**SINGLE SOURCE PROVIDER**
We are a single source supplier of aluminum, wood, and vinyl-composite glazing systems which all help to create consistency throughout your project. Solar Innovations® provides all fasteners, silicone, sill flashings, and project specific shop drawings (unless stated otherwise on our proposal).

**IN-HOUSE TESTING**
With two in-house test labs, the quality of our products is second to none and includes some of the highest ratings in class. Solar Innovations® offers a vast line of tested products that meet various certifications, including NFRC, AAMA, Florida Impact, Miami Dade, and TDI. Our products can be specifically designed and engineered to your project location.

**ECO-FRIENDLY PRODUCTS**
We are proud that our materials are sourced from local suppliers; not only does this help boost our local economy, but it also reduces transportation times and fuel emissions to help lower the impact on the environment. Our products are designed for high thermal performance, making them an energy efficient option for homes and commercial spaces. Even more, our systems include recycled content and are LEED friendly. Possible LEED credits are available in the following categories: Materials & Resources (recycled content), Indoor Environmental Quality (daylight), Energy & Atmosphere (performance), and Regional Priority (within 500 miles of our facility). Depending on the application, other credits may also apply. Solar Innovations® is proud to be a LEED Gold certified manufacturing facility.

**COASTAL APPLICATIONS**
Our systems have the ability to meet coastal requirements, limiting visible wear and tear. We have advanced aluminum finishes and stainless steel components in our hardware, making our materials durable against the corrosive effects of the elements in coastal regions.

**INSTALLATION**
Whether a product is purchased directly from our manufacturing facility or through our dealer network, Solar Innovations® can provide installation and service for all of our products within a six-hour radius of Pine Grove, PA. Our expertly trained team is registered to complete installation and service work in an ever increasing number of states (consult our sales department for a current listing).

**REPAIR & REPLACEMENT SERVICES**
Our team has the technical skill and experience to evaluate your situation and determine the most effective options for the repair, service, or replacement that is needed for your project. All drawings and information are saved for each project, so a site visit will not always be required.
Open Concept Living

Solar Innovations® vinyl-composite folding glass walls are the perfect solution to highlight a panoramic view or achieve an indoor/outdoor experience. All of our vinyl products have the benefit of requiring minimal maintenance, increased flexibility, and a cost efficient option. Our compression seals and multi-point hardware help to limit dust and dirt in sills, while increasing air and water performance. Swing doors can be integrated into the folding walls, allowing you to easily enter and exit a room without opening the entire system.

Details

SILL OPTIONS

- Standard Jambs
- Recessed with ADA Ramps
- Recessed Flush
- Recessed Standard
- Standard

Head & Sill

To download more details and for dimensions, visit solarinnovations.com/information/downloads.
Hardware

BRASS - INLAND APPLICATIONS

SOLID BRASS - COASTAL APPLICATIONS

ALUMINUM - INLAND APPLICATIONS

CONTEMPORARY

Double Door

WP WP

WP WP

WP WP

WP WP

WP WP

WP WP

WP WP

Semi-Concealed Hinge Standard

Surface Mount Hinge

Hinges

Closers

Commercial Hardware

Locks

Two Point Locking Handle Standard

Two Point Keyed Lock

Standard Flush Bolt

Thumbturn Lock

Keyed Lock

Semi-Concealed Hinge Standard

Surface Mount Hinge

D Series 7414 Door Closer

D Series TS93 Door Closer

D Series BTS80 Floor Closer

R Series H28S Floor Closer

Please Note: All hardware is subject to vendor availability. Custom finishes may be available upon request at additional lead times and/or cost. Solar Innovations® reserves the right to discontinue any hardware option at any time. Please visit solarinnovations.com for additional product information.

Configurations

ALL WALL

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WP

 WP = Wall Panel  SD = Single Door  DD = Double Door  DA = Door Adapter  FJ = Floating Jamb

Custom configurations are available upon request.
Blur Your Boundaries

The vinyl-composite sliding glass door system allows up to four panels wide on a dual or multi-track system, while offering excellent water barrier performance, thermal performance, energy efficiency, and durability, making it a strong choice for your project. These doors are available in narrow, medium, wide, and impact rated rails.

NARROW
Narrow vinyl-composite sliding glass doors offer the same energy efficiency and durability as the wide rails but in a narrower frame. With the narrow design of its stiles and rails, these doors are perfect for taking full advantage of views and daylight. The narrow rail is available in both dual track and multi-track sliding glass door systems. Florida non-impact options are also available.

MEDIUM
Achieve more panoramic views with the vinyl-composite multi-track sliding glass doors. Smoothly slide open the doors and invite expansive views, fresh air, and an abundance of warm, natural light into your space. Low maintenance, superior energy efficiency, and ease of operation make our multi-track sliding doors ideal for both commercial and residential applications. The medium rail is available in both dual track and multi-track sliding glass door systems.

WIDE
Wide vinyl-composite sliding glass doors are an energy efficient, durable solution for any application. The beauty and elegance of classic sliding doors are harmonized with the superior strength and durability of the vinyl-composite framing. Wide offers a distinctive look with wide stiles and rails. The wide rail is available in both dual track and multi-track sliding glass door systems. Florida impact certified options are also available.
Hardware

Euro Series* (Dual Track Sliding Systems)

Outside Pull Handle
(Dual Track Sliding Systems)

Standard Recessed Handle
(Multi-Track Sliding Systems)

Locking Option
No Lock Option

*Cream White is standard, all others shown are custom.

Locks

Head Lock

Foot Lock

Rollers

113/16" Composite Roller
(Multi-Track System)

Standard Slim Roller
(Narrow & Wide System)

Please Note: All hardware is subject to vendor availability. Custom finishes may be available upon request at additional lead times and/or cost. Solar Innovations® reserves the right to discontinue any hardware option at any time. Please visit solarinnovations.com for additional product information.

Details

Narrow Rail Head & Sill
(Dual Track Systems)

Add on Sill Tracks Available

Medium Rail Head & Sill
(Multi-Track Systems)

Wide Rail Head & Sill
(Dual Track Systems)

Details for all systems are available to download at solarinnovations.com/information/downloads.
An Energy-Efficient Welcoming

Solar Innovations® vinyl-composite swing doors are perfect for both residential and commercial entrance doors. All terrace doors have a durable uPVC framing that can withstand extreme weather conditions. Transoms and sidelites can be added to the vinyl-composite doors with ease.

EXAMPLE CONFIGURATIONS

Sill Options

SI4500

SI3000V

Details

To download more details and for dimensions, visit solarinnovations.com/information/downloads.
Hardware

SI3000V VINYL-COMPOSITE SWING DOORS

Finish Options
- Matte Black
- White
- Satin Nickel

Finish Options
- Black
- White
- Satin Chrome

Thumbturn Lock
Keyed Lock
Semi-Concealed Hinge
Two Point Locking Handle
Two Point Keyed Lock

Toronto
Allegro

SI4500 VINYL-COMPOSITE SWING DOORS

Multi-Point Locking System
Mortise Lock
Thumbturn Lock
Doorline Lever Handle

D Series 7414 Door Closer
D Series TS93 Door Closer
C Series PR82 Door Closer
D Series BTS80 Floor Closer
R Series H28S Floor Closer

Please Note: All hardware is subject to vendor availability. Custom finishes may be available upon request at additional lead times and/or cost. Solar Innovations® reserves the right to discontinue any hardware option at any time. Please visit solarinnovations.com for additional product information.

Configurations

TERRACE DOOR

- with sidelite
- with sidelite
- with sidelites
- with sidelites
- with transom
- with sidelite & transom
- with sidelites & transom

FRENCH DOOR

- with sidelites
- with sidelites
- with transom
- with sidelite & transom
- with sidelites & transom

Impact and non-impact configurations are available.
Vinyl-composite window systems are increasing in demand in single and multi-family homes for their high-performance, low-maintenance, and design flexibility. When closed, these windows provide outstanding thermal and acoustical performance, creating a comfortable indoor environment year-round while significantly reducing heating and cooling costs. Our vinyl-composite window line integrates fixed, inswing casement, hopper, and tilt turn windows, all with similar sightlines and finishes.

**Rooms with a View**

**CASEMENT WINDOWS**
Casement windows are one of the most popular styles in the world. They are hinged at the side and swing outward when opened. Casement windows are excellent for natural ventilation strategies, especially in hot climates. Inswing casement windows are also available.

**AWNING WINDOWS**
Awning windows hinge at the top of the frame, allowing the bottom to open outward. There is usually a cam lock on the interior, which can be unlocked, and the window will open. They are a popular choice for in-system windows in greenhouses, conservatories, sunrooms, and other glass structures. When the windows are open, rain water will flow off and away from your structure.

**HOPPER WINDOWS**
Hopper windows are hinged at the bottom and tilt in to offer increased ventilation. They are often paired with other fixed or operable windows and doors or incorporated into transoms. These window systems are typically used in basements for light and ventilation where there is limited space.

**TILT TURN WINDOWS**
Tilt turn windows offer dual action with the turn of a handle. Turning the handle upward allows the window to open like a hopper, offering increased security. Turning the handle to the side opens it like an inswing casement, allowing for easy cleaning. Returning the handle downward engages the lock.

**FIXED WINDOWS**
Fixed windows are non-operable, meaning they can’t be opened. This type of window is often found in conjunction with the other types of windows in a Mulled Window System or in areas where natural light is needed without the need for ventilation.

**Details**

To download more details and for dimensions, visit [solarinnovations.com/information/downloads](http://solarinnovations.com/information/downloads).
FOLDING SCREENS
Folding screens are hinged and fold in an accordion-style, mimicking the operation of folding glass walls. Folding screens can be used to create an outdoor screen room to enjoy nature without bothersome insects.

SLIDING SCREENS
Sliding screens are generally used on large openings, most commonly on the exterior of sliding glass doors. The panels of this system can be pocketed into a wall cavity with either a center split, or stack to the left or right when fully open.

SCREEN SWING DOORS
Screen swing doors are available for both terrace and French doors. The screen swing door is constructed from an aluminum frame that mimics the sightlines of our glazed swing doors.

FIXED SCREENS
Fixed screens are used on casement, awning, hopper, tilt turn, and sliding glass windows. Fixed screens can be removed for cleaning.

B SERIES RETRACTABLE SCREENS
B Series Screens are suited for large openings when a pleated screen option is preferred. These retractable screens can meet at a 90° corner to enclose a space with only one visible vertical division. This screen can be paired with folding glass walls, sliding glass doors, lift slide doors, French doors, screen rooms, and more.

S SERIES RETRACTABLE SCREENS
S Series Screens are vertically retractable screens that provide the ability to enjoy the outdoors while being protected from pests. S Series Screens feature a specialty zipper system which guides the fabric within the track and prevents insects from entering. This system can prevent sunlight from entering the room with the selection of black out fabric.

For additional information refer to our screens brochure or visit solarinnovations.com/screens.
# Standard SI3000V Vinyl-Composite Folding Glass Wall/Swing Door & SI4100 Vinyl-Composite Sliding Glass Door Finishes

<table>
<thead>
<tr>
<th>Finish Options</th>
<th>Cream White 136</th>
<th>Tan 304</th>
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</thead>
</table>

# Standard SI4500 Vinyl-Composite Swing Door/Window Finishes

<table>
<thead>
<tr>
<th>Finish Options</th>
<th>White</th>
<th>Beige*</th>
<th>Clay*</th>
</tr>
</thead>
</table>

## Paint (Available for all systems)

- Black
- Bronze 92
- TA-17 Brown
- Brown 342
- Brown 3941
- Clay 72
- Brown 398
- Khaki
- Beige
- Cream White

## Exterior Foil (Available for all systems)

- Bronze*
- Silver*
- Burnt Almond*
- Black Brown*
- Golden Oak*
- Light Oak*
- Shotgun*
- Mahogany*
- Irish Oak*
- Strip Douglas*
- Soft Cherry*

## Interior Foil (Available for all systems)

- Bronze*
- Silver*
- Burnt Almond*
- Black Brown*
- Golden Oak*
- Light Oak*
- Shotgun*
- Mahogany*
- Irish Oak*
- Strip Douglas*
- Soft Cherry*

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**Please Note:** Depending upon color selection, extra cost and lead times may apply for all finishes other than Solar Innovations® stock standards. Color illustrations are shown as accurate as standard photography and printing processes allow. Final finish selection should be made from a physical sample; please contact Solar Innovations® to receive samples. All product and finish options are subject to vendor availability. Solar Innovations® reserves the right to discontinue any option at any time without notice. Additional options, including custom color matches, are available; contact a Solar Innovations® sales designer for details.
Finishing Touches

Glazing Options

**LOW-E GLASS**
Low-E glass includes microscopically thin transparent layers on the glass surfaces that reflect heat back to its source, keeping heat out in the summer, and warmth in during the winter. We offer several variations of tint intensity for the perfect selection in any climate.

- **LoE 272**: Our most common glazing, allows for clear views with the thermal benefits of Low-E glass.
  - 72% VISIBLE LIGHT TRANSMITTANCE
  - 0.41 SOLAR HEAT GAIN COEFFICIENT
- **LoE 366**: Increased performance with a slight tint, provides a comfortable space for both plants and people.
  - 65% VISIBLE LIGHT TRANSMITTANCE
  - 0.27 SOLAR HEAT GAIN COEFFICIENT
- **LoE 340**: Reduces solar heat gain drastically while allowing daylight to enter.
  - 39% VISIBLE LIGHT TRANSMITTANCE
  - 0.18 SOLAR HEAT GAIN COEFFICIENT

Other Low-E’s from Guardian, PPG, and Viracon are available.

**POLYCARBONATE**
Polycarbonate is a popular alternative to glass; it is lightweight, sustainable, incredibly strong, and easily transported.

- **Lumira® aerogel** can be used to fill the polycarbonate for increased thermal ratings, and greatly reducing sound transmission differences. Another benefit of incorporating Lumira® aerogel is glare reduction — the diffused daylight offered by polycarbonate creates bright, even lighting in any space. Sustainable purchasing, optimum energy efficiency, occupant comfort, low emissions, and daylighting are all possible points that Lumira® aerogel can assist with for LEED certification.

**DYNAMIC GLASS**
Dynamic glass can change automatically at specific temperatures, lighting conditions, or on demand. This allows for heat, light, and glare control any time of day.

- **Electrochromic** is highly energy efficient glass switches between clear and tinted states on demand. In its tinted state, it blocks solar heat while controlling glare. In its clear state, it transmits more solar heat than typical Low-E glass.
- **Thermochromic** glazing darkens gradually and dynamically when heated by direct sunlight. The glass interlayer changes in reaction to ambient temperature and sunlight, managing a building’s varied needs for passive solar heat gain, solar control, and natural daylight transmittance throughout the day.

**DECORATIVE GLAZING**
Decorative glazing is a broad category consisting of art glass and other unique glazing options. Additional custom decorative options are also available.

- **Pattern 62**: Pattern 62 offers an attractive appearance, obscurity, and light transmission capabilities.
- **Single Glue Chip**: Single glue chip or glue chip is a texture that resembles frost on a window pane during the winter cold.
- **English Reeded**: English Reeded glass is a ribbed glass. The ribs of the glass run horizontally.
- **Satin/Acid Etch**: Satin etched adds the appearance of a 3-dimensional texture. It should be used on an unexposed surface in an IG unit.

**Grid Options**
Grids are placed on the exterior and also on the interior of the window. This type of grid can be applied to monolithic or insulated glass. For additional grid options and grid dimensions, visit [solarinnovations.com](http://www.solarinnovations.com).

- Arched Grid
- Gothic Grid
- Double Gothic Grid
- Traditional Grid
- Cross Grid
- English Grid
Our Process

1 Contact Us

There are three convenient ways to work with Solar Innovations®. If you aren't quite sure where to start, call us directly at (800) 618-0669.

OUR DEALER NETWORK
Our extensive network of dealers throughout the United States have experience in the glazing industry and with our products. Dealers are frequently able to visit the job site and work one-on-one with the customer, aiding in design, local permits, and installation.

ARCHITECTS, GLAZIERS OR CONTRACTORS
Your architect, glazier, or contractor can work with our inside sales designer to ensure you receive the best product information and communication experience possible. Specifications, quotes, and drawings can be directed to you to review.

INSIDE SALES DESIGNER
Contact our inside sales designers directly to help plan and specify your project.

2 Planning & Quoting

There are various stages of planning due to the large variety of products, configurations, and options Solar Innovations® provides. Our in-house sales team can help coach you through the process and educate you on the differences between options. Whether you’re a dealer, architect, business, or homeowner, we will help you achieve the best product results.

You can call us directly at (800) 618-0669 or complete an online quote form at solarinnovations.com. Our quotes have a quick turnaround time and we will work hard to give the most competitive pricing when quoting your project.

3 Place an Order

Our ordering process is streamlined and efficient, giving you all the requirements for your project, shop drawings, lead times, and shipment dates. Once your order is placed, you will be paired with a dedicated project manager to guide you throughout the process.

4 Installation

We can provide installation and service for all of our products within a six-hour radius of Pine Grove, PA. Our expertly trained team is registered to complete installation in over 16 states. When utilizing our installation services, an experienced team will be scheduled to install the project upon completion of shop fabrication. Our team is trained in the correct protocols to ensure safe, efficient, and accurate system installation.