



**SCENIC GLASS, LLC**

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Scenic Glass is proud to bring the wonder of E-Glass™ to the great city of Las Vegas. Our goal is to provide architects, builders, artists and homeowners with the tools they need to create an energy-saving environment using dynamic technology that is only as limited as their creativity.

At Scenic Glass, we are excited to introduce SPD SmartGlass. This revolutionary glass was invented with efficiency in mind, yet it brings a sense of awe to anyone who is privileged to witness it. SPD SmartGlass gives you control over the amount of light, heat and scenery that enters a room. By utilizing small amounts of electricity, SPD SmartGlass can manipulate tiny particles within the glass to change between a dark blue energy-saving tint and a crystal clear glass.

Test results indicate that SPD SmartGlass windows have extraordinary solar heat rejection and control capabilities. The tests were conducted by DSET Laboratories, a division of Atlas Material Testing Technology, in accordance with ASTM and ASHRAE testing and calculation protocols.

The measure of how well a window blocks heat from sunlight is known as the solar heat gain coefficient (SHGC). It's expressed as a number between 0.00 and 1.00. The lower a window's SHGC, the less solar heat it transmits. For example, an SHGC of 0.40 means that only 40% of the sun's heat is able to infiltrate the window. SPD SmartGlass and Low-E glass have an SHGC that ranges from 0.06 to 0.25—which indicates that as much as 94% of the heat is being blocked!

The U.S. Department of Energy estimates that tintable smart windows can save building operators up to 40% on their energy bills, reduce the size of HVAC systems by as much as 25% and cut building operating costs by up to 20%. To maximize these dramatic savings, a smart window must be able to both reject and variably control the transmission of solar heat as well as visible light.

We thank you for your interest in the products that Scenic Glass can offer you on your current or future projects. Please visit our Web site, [www.scenicglass.com](http://www.scenicglass.com), to get the latest information and view examples of what we can offer.

Sincerely,  
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## MORE INNOVATIVE

### How Does E-Glass™ Work? or How Can E-Glass™ Be Used?

New demands for glass such as light control, heat control, privacy, security and strength have created an environment that has made E-Glass™ possible. We are seeing the application utilized in a variety of markets and product lines—from skyscrapers to small office buildings, from airplanes to cars, from ships and boats to private homes. The ideas being applied to this product are far from being fully realized at this time. The future of E-Glass™ has barely tapped its potential.



The picture above showcases our LC Glass being used for privacy.



The images above demonstrate how SPD (suspended particle device) film technology transforms the glass. It is available for many different applications in the home and office.

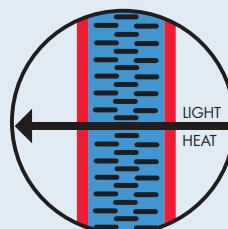
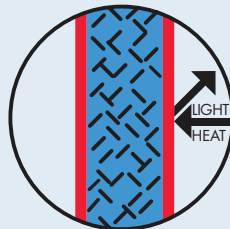
#### Features

- Blocks 99% of UV Rays
- Maintenance Free
- No Moving Parts
- Laminated & Insulated
- Custom Designs
- Automation Friendly
- Privacy
- Security
- Sound Attenuating
- Extra-Strength Laminated Glass
- Energy Saving

#### Home Applications

- Bathrooms
- Kitchens
- Living Rooms
- Dining Rooms
- Family Rooms
- Front Doors & Foyers
- Media Rooms
- Dens

### Simple Design, Optimal Performance



When a very low electrical current is applied to the film, the molecules instantly reorient to allow light and heat to pass through. When the electrical current is removed, the molecules return to their natural state blocking the sun and heat, eliminating the need for mechanical shades, blinds and other window coverings.

### DOE Estimates for Tintable Smart Windows

- Up to 40% savings on energy bills
- Up to 20% savings on operating costs
- Up to 24% reduction in peak electricity demand
- Up to 25% reduction in size of HVAC systems

**Choose from Tinted or Frosted Coatings.  
Use for Windows, Skylights or Doors.  
E-Glass™ Is Perfect for Your Home or Office.**



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## MORE INTELLIGENT

### Controls and Sensors

The glass is controlled through ordinary household power and interfaces with standard electrical switches and state-of-the-art dimmers, as well as with most home automation systems and remote controls.

Smart sensors can also be incorporated into your environment, which will automatically control the glass according to any dynamic changes that take place in the room—such as variations in sun, light or temperature.

### What Can E-Glass™ Do For Residential Windows & Doors?

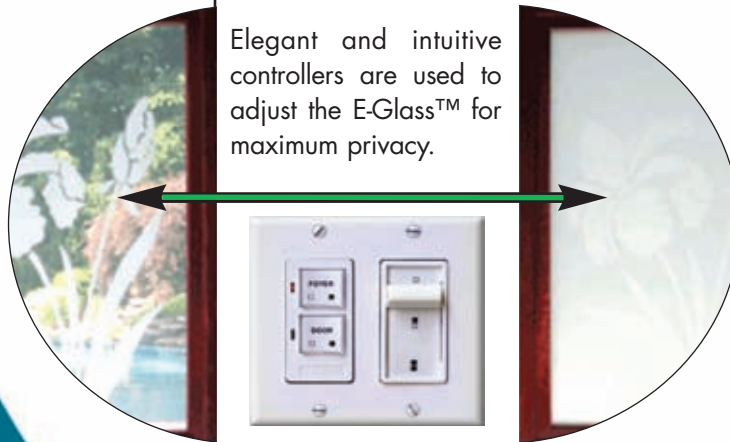


*This picture shows you how "smart glass" can provide privacy and reduce the rising costs of energy by blocking out heat from the sun.*

Our line of patented E-Glass™ products has been designed with many benefits in mind. For example, they can instantly switch from clear to dark in order to give homeowners privacy. Our E-Glass™ products also block out harsh sunlight, protect from harmful UV rays, keep unwanted heat outside and drastically reduce energy costs. They even offer security. Since the glass is laminated, it provides superb strength against breakage.

Each window is energy efficient and custom built to the needs of our customers. We can even accommodate unconventional sizes or shapes with frames from Marvin Windows and Doors and other window manufacturers in the industry.

Elegant and intuitive controllers are used to adjust the E-Glass™ for maximum privacy.



**E-Glass™ Windows Are Truly an Investment That You Will Enjoy and Be Proud of for Years to Come.**



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## MORE POWERFUL

### What Can E-Glass™ Do For Commercial Properties & Offices?

E-Glass™ is an amazing product that not only provides many wonderful benefits, but it also surprises and impresses all who encounter it.

#### About SPD SmartGlass

It changes from a natural dark navy blue in the "Off" state to a crystal clear in the "On" state—and seamlessly moves through all the varying shades in between light and dark. The user has total control of the tinting and can select it based on needs or for pleasure. SPD SmartGlass is generally utilized on outside windows for maximum benefits.



#### Take Control of Sun Glare and Privacy

E-Glass™ eliminates the requirement for mechanical shades, blinds and other window coverings and opens up many design possibilities, particularly for odd-shaped, hard-to-reach windows and skylights.

*For important meetings or presentations that require the utmost privacy and discretion, LC Glass is the product for your office.*

#### About LC Glass

It moves instantly from a milky opaque frost in the "Off" state to clear in the "On" state. With the flick of a switch, LC Glass creates complete privacy or allows for a perfectly transparent view through the glass. It also provides reduction in sound transfer—enhancing privacy and security. LC Glass can be used for multimedia projections. It acts as the perfect movie screen or white board, while still allowing diffuse light to pass through.

Laminated glass panels are available in thicknesses of 5/16", 7/16" and 9/16" and in heights of up to 10 feet. We can also provide complete pre-wired, all-glass Herculite Doors. LC Glass comes in bronze, gray, blue and green tints. Laser etching for corporate logos is also available.

**SPD-Smart film technology was awarded the "Best of What's New Award" for home technology from Popular Science magazine.**



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## MORE POSSIBILITIES

Product Distinctions For Residential, Commercial,  
Contract & Institutional Use

### LC Glass™ (For Light Diffusion)

#### Features

- Privacy
- Filters and Diffuses Light
- Shields 99% of UV Rays
- Reduces Glare
- Promotes Use of Natural Light
- Sound Attenuating
- Excellent Projection Surface
- Extra-Strength Laminated Glass
- Energy Saving

#### Window Applications

- Bedroom Windows
- Bathroom Windows and Doors
- Front Doors and Foyers
- Conference Rooms/Partitions
- Hospital and Emergency Rooms

#### Skylight Applications

- Bathrooms
- Kitchens
- Living Rooms
- Dining Rooms

### SPD SmartGlass™

(For Window Tinting)

#### Features

- Tint
- Regulates Light
- Infinitely Adjustable
- Controls Heat
- Shields 99% of UV Rays
- Sound Attenuating
- Extra-Strength Laminated Glass
- Energy Saving

#### Window Applications

- Living Room Windows
- Family Room Windows
- Water-Facing Views
- Media Rooms
- VIP Suites & Penthouses
- Auto, Nautical & Aircraft

#### Skylight Applications

- Media rooms
- Bedrooms
- Dens
- Theaters

Specifications	LC Glass	SPD SmartGlass
Color: On	Clear	Clear
Color: Off	Frosted White	Dark Blue Tint
Visible Light Transmittance (%): On	77	50
Visible Light Transmittance (%): Off	58	1
Specular Light Transmitted (%): On	75	n/a
Specular Light Transmitted (%): Off	.01	n/a
Diffused Light Transmitted (%): On	63	n/a
Diffused Light Transmitted (%): Off	4	n/a
Shading Coefficient: On	.08	.8
Shading Coefficient: Off	.65	.47
Relative Heat Gain Film Only: On (btu/Sq Ft/Hr)	-	437
Relative Heat Gain Film Only: Off	-	295
5/8" Insulated Clear Glass	-	191
5/8" Insulated Low E-Glass	-	104
U Factor – Laminated Only (btu/Hr/Deg(F))/Sq Ft	5.3	5.3
5/8" Insulated Clear Glass	.05	.5
5/8" Insulated Low E-Glass	.28	.28
Response Time (Secs) Switch: On	.1	1
Response Time (Secs) Switch: Off	.4	5
Temperature Limits (°F)	-4° thru 158°	-22° thru 194°
Operating Voltage	120 VAC/50-60 Hz	120 VAC/50-60 Hz
Operating Current	12mA/sq ft (.12A/10sq ft)	1.5 mA/sq ft (.015A/10sq ft)
Power Consumption	1.44W/sq ft (14.4W/10sq ft)	.06 W/sq ft
UV Blocking	99%	99%
Min & Max Size (Film Only)	38 5/8" W x 120" L	40" W X 120" L
Min & Max Size (Laminated Glass)	8 1/2' W X 16' L	8 1/2' W X 16' L

**Lamination and Construction Options:** Laminated with Annealed or Tempered Glass or Polycarbonate; Tinted Glass and Reflective Glass; 5/8" to 1 1/2" Thick Insulated Glass, Low-E Glass, Argon Filled; Shapes, Holes, Bent, Curved, Butt Glazed; Flat, Beveled, Sanded, Seamed & Polished Edges; Film Setback: 1/8" on All Edges; Minimum Framing Bite: 1/2" on Busbar Edge; Mounting Options: Windows, Doors, Skylights; UL Approved Construction, Fittings and Connectors

**Decoration Options:** Sandblast, Laser Etch, Stained Glass Overlays, Patterns, Divided Lites, Segmenting