

# PRELCO



EXPERTISE IN GLASS SOLUTIONS



## ARCHITECTURAL GLASS PRODUCTS





## EXPERTS IN INNOVATIVE GLASS

### A FULL RANGE OF SPECIALTY GLASS – ALL UNDER ONE ROOF

Whether to achieve superior energy performance, meet sustainable building requirements, provide personal safety and protection, or incorporate innovative design, Prelco has the solution you're looking for. With our complete product line and extensive technical knowledge, we're ready to make any project a reality, no matter how simple or complex.

### A TEAM OF QUALIFIED EXPERTS

At Prelco, we believe that our commitment to you, the professionals in the glass industry, must go beyond the supply of glass products. We also believe that it is our duty to provide you with all the technical support necessary for the realization of your glass projects.

Whether it's determining what type of glass is most suitable for your projects, providing technical assistance for specifications, or developing new products, you can count on us for innovative solutions that meet your needs.

### IMAGINE, CREATE... LET YOUR IDEAS SOAR

#### QUESTIONS?

Architects, glaziers, building professionals

Contact us:

1-800-463-1325

[sales@prelco.ca](mailto:sales@prelco.ca)

[sales@prelco.us](mailto:sales@prelco.us)

*Halifax Central Library, Halifax, NS  
LoE 366 Insulating Glass Units with Digital In-Glass Printing  
Fowler Bauld & Mitchell / Schmidt Hammer Lassen Architects*



## THERMASPEC

Our Thermaspec calculation tool lets you create your own datasheets for double or triple insulating glass products. Select your glass make-up, generate performance information and download the datasheet. You can also use Thermaspec to run a performance comparison of different glazing options and decide which one works best for your project needs.

For more information: [thermaspec.prelco.ca](http://thermaspec.prelco.ca) / [thermaspec.prelco.us](http://thermaspec.prelco.us)



## SUSTAINABLE CONSTRUCTION

The glass industry offers a variety of options to help you reduce your energy consumption. Prelco has a wide range of highly energy efficient glass products that significantly improve building performance and meet the requirements for environmental assessment and certification programs including LEED™, BOMA BEST™, Living Building Challenge™, WELL Building Standard and more. Glazing by Prelco is particularly helpful to get the following LEED™ points:

- Energy and atmosphere
- Materials and Resources
- Indoor Environmental Quality

To find out more about how Prelco can contribute to your green building initiative, contact us.



LIVING BUILDING CHALLENGE



# GLASS MANUFACTURER FOR MORE THAN 60 YEARS

1953

Vitrierie Générale ("General Glass") is founded

1973

Prelco is founded

1977

Expansion of the plant area and acquisition of a glass tempering furnace

1988

Merger between Vitrierie Générale & Prelco. The production area covers 97 000 sq.ft. (9000 m<sup>2</sup>)

1989

Introduction of the first silicone opacified spandrel panels

1990

Implementation of a fully automated glass cutting line

1992-1995

Acquisition of equipment to diversify Prelco's offering, adding tempered laminated glass, bent glass, silk screening and more to its product line

1996-1997

Purchase of two machines, a chemical tempering furnace and a thermal tempering and bending furnace

2000

Construction of the Prelco NB plant, an increase in production capacity by 75,000 sq.ft. (7,000 m<sup>2</sup>)

2002

Prelco strengthens its market position for high-performance insulated glass units with the acquisition of Industries Thermalite in Montreal

2004

Prelco launches its innovative heated glass

2005

Acquisition of Beclawat, a manufacturer of advanced watertight door systems and windows for the marine and railway industries

2006

Acquisition of Veralex, a business specialized in the manufacturing of boat windshields

2011

Installation of a new fully automated insulating glazing assembly line

2013

Prelco diversifies its product offering with the acquisition of an inkjet printer for glass and the launch of Prel-Shade thermochromic glass

2015

Prelco receives Glass Magazine's "Most Innovative Decorative Glass Project, Exterior" award for its contribution to the Student Learning Centre at Ryerson University

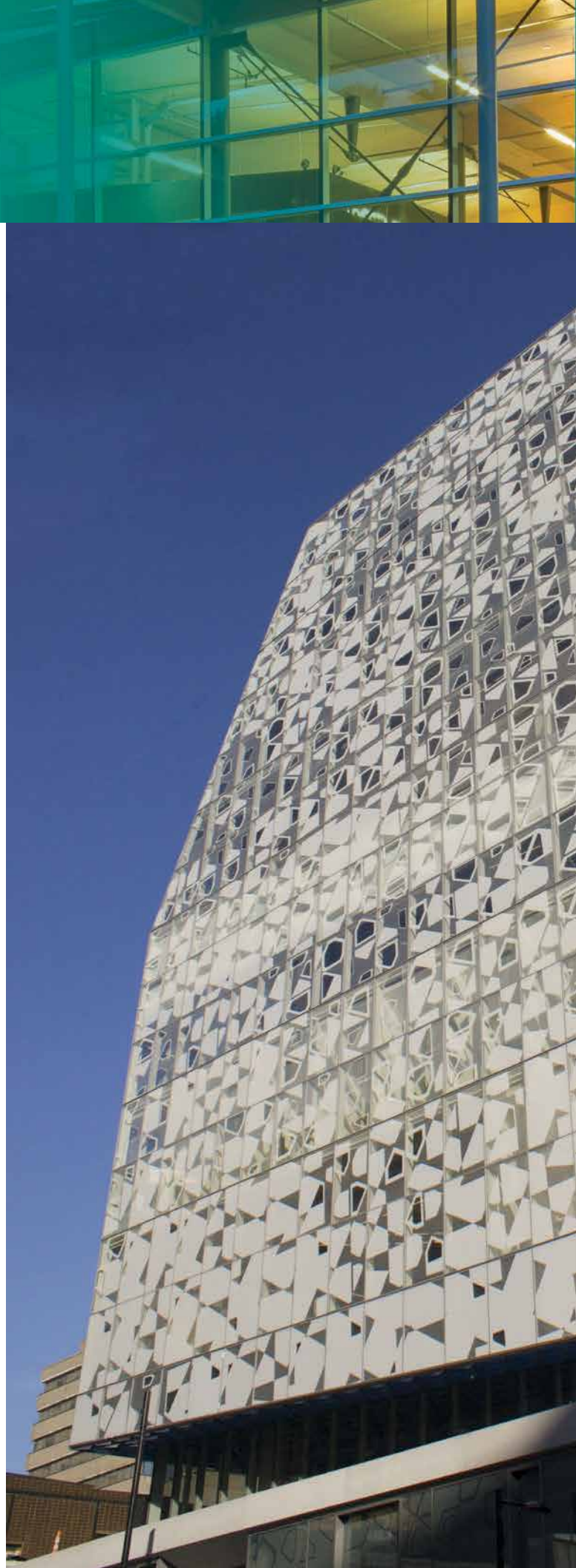
2016

Launch of Prelco US. Prelco now has a production area of more than 280,000 sq.ft. (26,000 m<sup>2</sup>)



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# PRODUCTS

## OVERSIZED GLASS

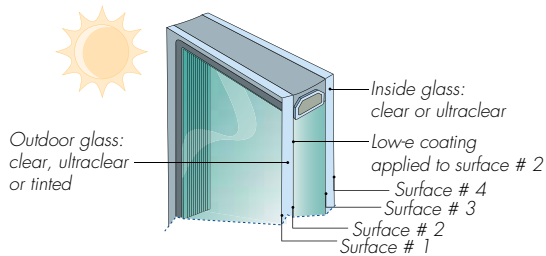
Prelco's state-of-the-art equipment allows us to offer a variety of oversized glass for the most daring concepts. Oversized glass is subject to greater stress from dead loads and live loads, and requires careful planning. Prelco can help you determine what type of glazing is best for your project.

	Up to 156" (3960 mm)*	Up to 190" (4825 mm)*	Up to 196" (4978 mm)*	Up to 204" (5180 mm)*
Fully tempered glass 1/4" to 1/2" (6 to 12 mm)				
Heat-strengthened glass 3/8" and 1/2" (10 and 12 mm)				
Laminated glass				
Insulating glass				
Tempered glass 5/8" and 3/4" (15 and 19 mm)				
Spandrel glass				
Silkscreened glass				
Digital printed glass				

\*Certain conditions apply, contact us for more information.

## THERMALITE HIGH-PERFORMANCE INSULATING GLASS

The high performance, energy-efficient solutions such as low emissivity (low-e), tinted or reflective glass used by Thermalite insulating glass make a significant impact on a building's energy consumption. This glass helps keep occupants comfortable, counteracting heat increases in the summer and limiting heat loss in the winter. Depending on the type of glass chosen, it can either enhance natural light transmission or minimize sun glare.



THERMALITE <sup>1</sup> - HIGH-PERFORMANCES DOUBLE-GLAZED UNITS							
Outdoor Glass <sup>2</sup>	Appearance	Visible Light Transmission (%)	Visible Light Reflectance (%)	U-Value (winter)	Solar Heat Gain Coefficient	Light to Solar Gain	Low Maintenance Option
LoE <sup>2</sup> 272 <sup>®</sup>		69	11	0.24	0.40	1.73	✓
LoE <sup>2</sup> 366 <sup>®</sup>		62	11	0.23	0.27	2.31	✓
LoE <sup>2</sup> 240 <sup>®</sup>		37	13	0.25	0.24	1.55	✓
SunCool™ 70/40 OW		72	10	0.24	0.41	1.75	
SunCool™ 70/40		70	10	0.24	0.39	1.81	
SunCool™ 66/33		66	16	0.23	0.33	1.99	
SunCool™ 50/25		49	19	0.23	0.25	1.96	
SunCool™ 40/22		40	20	0.23	0.22	1.80	
SN68 CrystalGray <sup>®</sup>		49	8	0.24	0.29	1.68	
SN68 CrystalBlue™		44	7	0.24	0.28	1.55	
SN54 CrystalGray <sup>®</sup>		39	10	0.24	0.22	1.77	
SN54 CrystalBlue™		35	9	0.24	0.21	1.65	

1 : 1" (25 mm) insulating glass: 1/4" (6 mm) outdoor glass / 1/2" (12.7 mm) airspace / 1/4" (6 mm) indoor glass.  
2 : Low-e on surface # 2.

## LOW MAINTENANCE GLASS PROTECTIVE COATING

Low maintenance glass contains a layer of titanium dioxide applied to the outdoor surface (Surface # 1). UV ray-activation and rain work together to break down and flush off any dirt particles stuck on the glass surface. The result? A continuous cleaning process that keeps glass dirt-free and ensures minimal year-round maintenance. The self-cleaning, low-e insulating option blends optimal comfort and minimum maintenance, making it an ideal choice for all types of industrial, commercial and institutional buildings.

Baccarat Hotel, New York, NY  
Insulating Glass  
Prismatic Glass manufacture by Glassform  
APG International Inc  
SOM Architecture



Eon 75, Bedford, NS  
SunCool™ 50/25 Insulating Glass Units and Prel-Coat Spandrel Glass  
Mackay-Lyons Sweetapple Architects Ltd.

# PRODUCTS

## PREL-COAT SPANDREL GLASS

Prel-Coat spandrel glass panels are opaque and generally used in the blind sections of a curtain wall. These types of glass panels are placed between vision window sections to hide structures that should not be seen from the outside. Spandrel glass is made-up of single glass or insulating glass units coated with opaque ceramic frit. The ceramic frit coating is fused to the glass surface during the heat treatment process (full tempering or heat-strengthening) and is extremely resistant to cracks, discoloration and chemical degradation. Prelco uses environmentally friendly ceramic frit.

*529 Broadway, New York, NY  
Insulating Glass with Digital In-Glass Printing  
BKSK Architecture*

*Espace 400e, Québec, QC  
Insulating Glass with Silkscreened Glass  
Dan Hanganu Architectes et Côté Leahy Cardas Architectes  
Photo: Michel Brunelle*



## PREL-DESIGN PRINTED GLASS

### DIGITAL IN-GLASS PRINTING

Prel-Design digitally printed glass allows you to reproduce the image of your choice on one or more panels of glass. The image is reproduced using a digital printer that deposits a layer of liquid ceramic onto the glass surface. Once the application is complete, the glass is heat-treated (fully tempered or heat-strengthened) to fuse the ceramic to the surface of the glass. The printed image is permanent and exceptionally resistant to scratches, cracks, discoloration and chemical degradation.

Prel-Design printed glass brings your unique and artistic projects to life. It can be used to print any type of opaque or translucent image, photo or pattern. A single image can be repeated on several panels of glass or enlarged to span over several panels, all in up to 720 dpi high resolution.

### SILKSCREENED GLASS

Like digital in-glass printing, Prel-Design silkscreened glass lets you reproduce one or more images onto glass panels. This printing process uses a textile screen to apply a ceramic pattern onto glass. Designers can choose from our standard range of patterns or apply a custom motif. Once the pattern has been applied, the glass is heat-treated (fully tempered or heat-strengthened) to fuse the ceramic to the glass surface. Prelco offers a wide selection of environmentally friendly opaque and translucent ceramic colors.

### BIRD SAFETY

It is estimated that millions of birds die every year in North America due to collisions with glass surfaces. Applying a pattern to the surface of glass helps ensure bird safety, as the pattern creates a visual signal that helps birds detect and avoid glass. In order to be effective, the maximum space between visual signals must not exceed 2" x 4" (50 x 100 mm). Prelco offers a full range of design patterns to prevent bird collisions, contact us for more information.

*Centre des foires de Sherbrooke, Sherbrooke, QC  
LoE 272 Insulating Glass Units with Digital In-Glass Printing  
Architech Design  
Photo: Stéphanie Groleau*



# PRODUCTS

## PRE-LAM LAMINATED GLASS

Prel-Lam laminated glass is an assembly of at least two lites of glass bonded with one or more interlayers, usually made of polyvinyl butyral (PVB). This glass is placed in an autoclave and treated under high pressure and intense heat. Once treated, the layers form a single, perfectly bonded panel of glass.

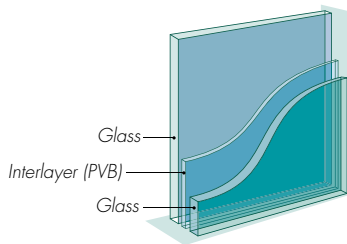
By changing the quantity, type, and thickness of laminated glass components we can create glass products with specific properties. Combining these various components can enhance the energy performance and structural properties of glass, help you meet certain safety standards, or change the appearance of the glazing.

## SAFETY

In case of accidental breakage, the interlayer will hold glass shards together, thus minimizing personal injury and property damage. Laminated glass is an especially effective safety glass solution for sloped and high structures.

## SOLAR CONTROL

Laminated glass can block up to 99% of the UV rays that cause furniture, clothing and other objects to fade. Using solar control components (interlayer and/or glass) can also significantly reduce solar heat gain.



*Eastman Chemical Company, Kingsport, TN  
Laminated Glass*

*Natban Philips Square, Toronto, ON  
Laminated Glass  
Perkins + Will*

*Vidéotron Store, Montréal, QC  
Laminated Glass with Vanceva®  
Sid Lee Architecture, Régis Côté Associés*



## PREL-GARD HEAT-TREATED GLASS

The heat tempering process consists of heating glass in a high-temperature furnace (621 °C/1150 °F) and then rapidly cooling it by blowing air onto its two surfaces. The cooling process locks the surfaces into a state of compression and the central core into compensating tension. Depending on the treatment cycle, the glass is either heat-strengthened or fully tempered.

## TEMPERED GLASS

Prel-Gard tempered glass is four times stronger than annealed glass with similar properties (size, thickness, etc.). In case of breakage, tempered glass shatters safely into small, blunt fragments, minimizing the risk of personal injury. Tempered glass meets safety glass standards.

## HEAT-STRENGTHENED GLASS

Prel-Gard heat-strengthened glass is two times stronger than annealed glass with similar properties (size, thickness, etc.). Heat-strengthened glass has greater resistance to wind loads and thermal stress, but cannot be considered as safety glass.

## PREL-GARD HST HEAT SOAK TEST

The heat soak test involves heating tempered glass to 290 °C, ±10 °C (554 °F, ±18 °F) for a set amount of time and then letting it cool slowly. The purpose of this test is to identify batches of glasses that have a high incidence of inclusions. These inclusions are one of the main causes of spontaneous breakage of tempered glass.

*Vidéotron Centre, Québec, QC  
Glass Door and Partition Systems  
ABCP Architectes / GLCRM Architectes / Populous in consortium  
Photo: Stéphane Groleau ▶*

## PREL-GARD SYSTEMS GLASS DOORS AND PARTITIONS

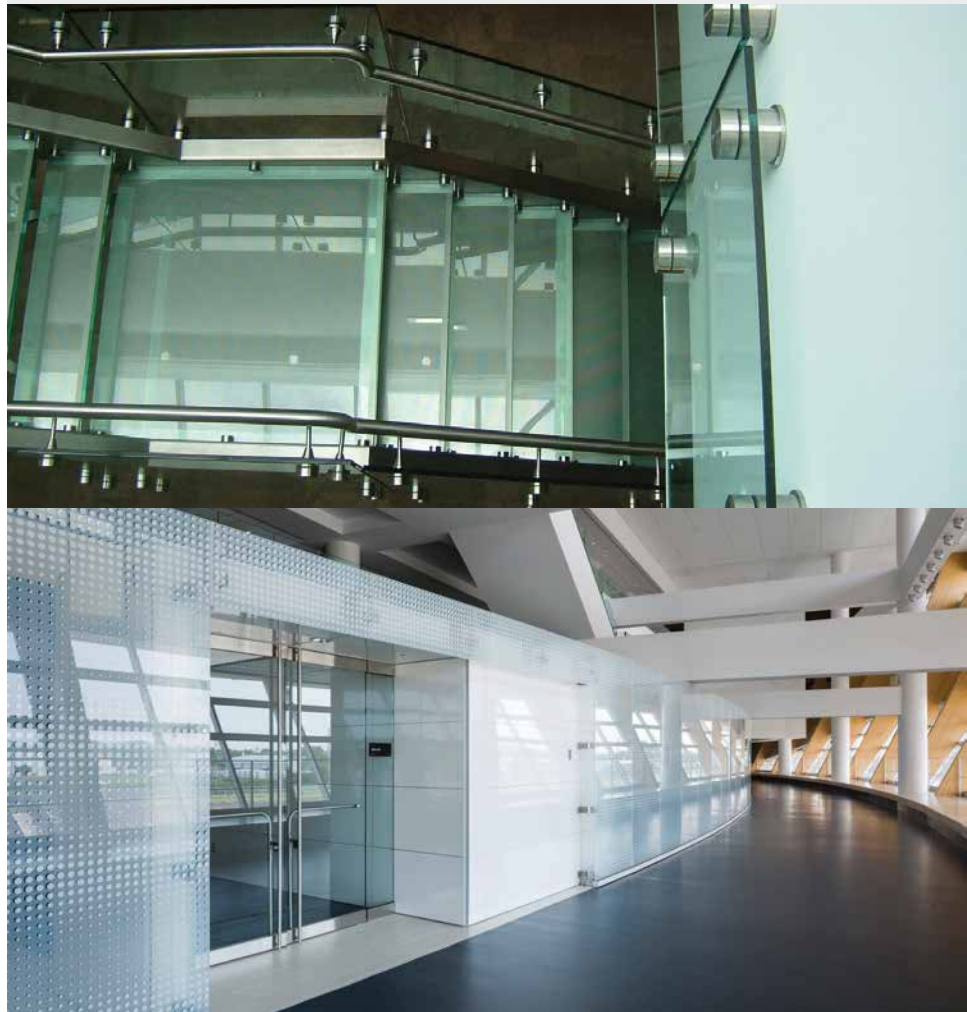
Prelco's Prel-Gard systems make it possible to create frameless glass doors and partitions with minimal hardware. These doors and partitions can be made from clear, ultraclear or tinted glass in 3/8", 1/2", 3/4" (10, 12 or 19 mm thicknesses). The glass is supported by patches, continuous rails or a combination of the two systems. Hardware is available in a wide variety of brushed or polished finishes.

With Prel-Gard systems, you can design discreet glass doors and partitions that blend in perfectly with all design styles, whether traditional or modern.

## TYPES OF DOORS AND PARTITIONS

- Swinging doors
- Sliding doors
- Stacking doors
- Folding doors
- Shower doors and enclosures
- Sidelights and fixed partitions

*Brascan Energy Marketing Inc, Gatineau, Qc  
Tempered Glass and Laminated Glass  
Woodman Architect & Associates Ltd. ▼*

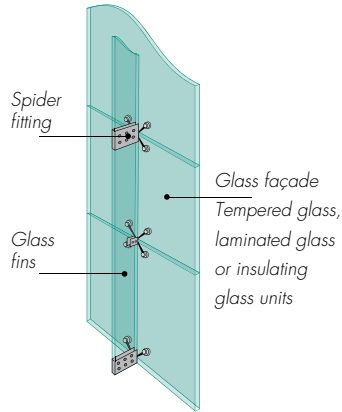




## PREL-POINT STRUCTURAL GLASS SYSTEM

The Prel-Point system makes it possible to create glass façades without mullions. The system consists of an assembly of glass panels with holes attached to a load-bearing structure with an assortment of fasteners including bolts, screws and spider fittings. Façades can be made of monolithic, laminated or insulating glass. The load-bearing structure can be made of glass, metal or steel cables.

With the Prel-Point system, you can design large, expansive glass surfaces that let the beauty and function of transparency shine through.



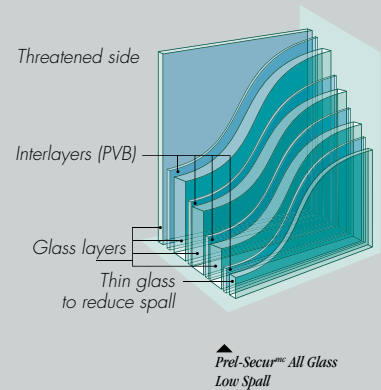
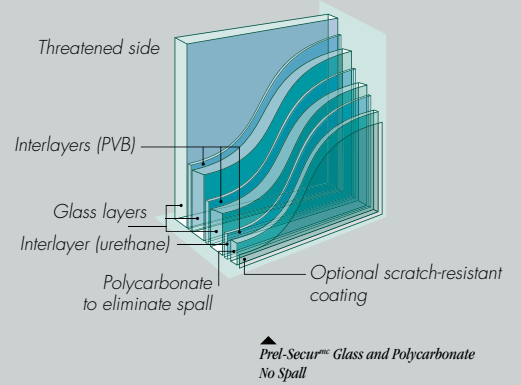
*Complexe Desjardins, Montréal, Qc  
Structural Point Supported Glass  
Lemay Michaud Architecte  
SDKLBB eng.*

*Freedom Tower, New York, NY  
In-Glass Digital Printing Laminated Glass*



## PREL-SECUR<sup>MC</sup> BULLET-RESISTANT GLASS

Prel-Secur is laminated glass composed of multiple layers of glass or polycarbonate bonded with several interlayers of PVB or urethane. This glass is designed to withstand firearms projectiles and is tested in compliance with the UL 752 standard. Prelco offers a wide variety of bullet-resistant glass for protection against different calibers of firearms.



## PREL-PROTECT ANTI-BURGLARY GLASS

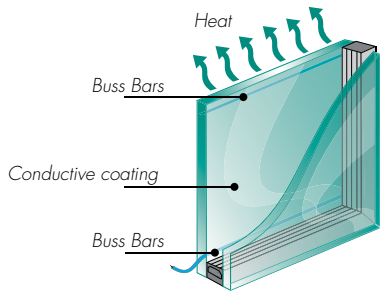
Prel-Protect glass is a combination of polycarbonates and glass bonded by several PVB or urethane interlayers. This assembly combines the exceptional impact resistance of polycarbonate and the resistance of glass to abrasion heat and chemicals. This glass offers a range of protection against physical assaults, firearms and blowtorches. In the event of a breakage, the polycarbonate maintains its resistance and an amount of transparency, ensuring residual protection until repairs can be made. Prel-Protect can comply with H.P. White TP-0500 test procedure.

# PRODUCTS

## SPECIALTY GLASS

### PREL-THERM HEATED GLASS

Prel-Therm heated glass consists of an insulating unit that incorporates a glass lite with a conductive metal oxide coating. The glass is connected to an electrical circuit and must be controlled by a thermostat with thermal sensor readings. When switched off, the unit performs like a regular insulating glass unit. When switched on, the conductive coating converts the electricity into heat. Not only does heated glass improve indoor comfort during the winter months, it also prevents condensation and frost from forming on windows.



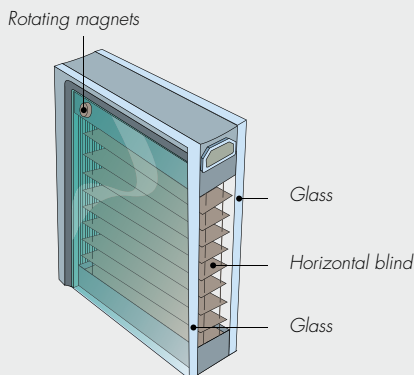
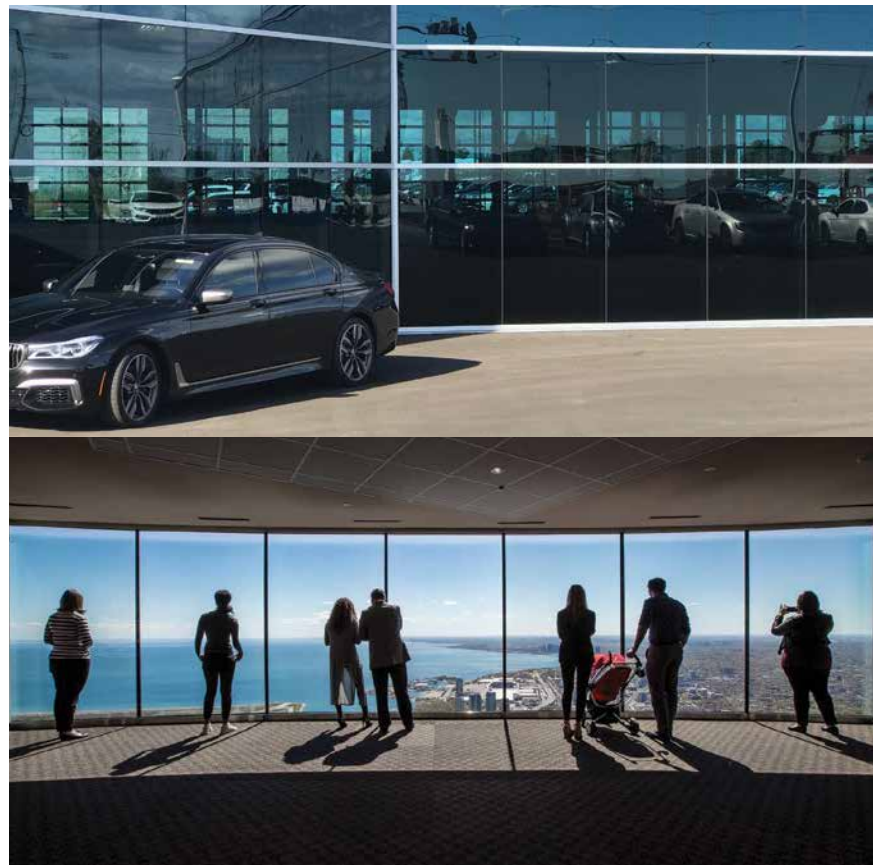
*Chrysler Dealership, Barrie, ON  
Thermochromic Insulating Glass  
Ian S. Malcolm Architects ▶*

*CN Tower, Toronto, ON  
Thermochromic Insulating Glass ▶*

### PREL-SHADE THERMOCHROMIC GLASS



Prel-Shade is a thermochromic glass that darkens when heated by the sun. During very sunny periods, the glass warms up and darkens, thereby reducing solar heat gain inside the building. When the sun is not as strong, towards the end of the day or during cloudy periods, for example, the glass is clearer to allow a maximum amount of natural light in.



### VENILITE INSULATING GLASS WITH INTEGRATED BLINDS

The Venilite system is an insulating glass unit consisting of a horizontal blind sealed between two lites of glass. The blind slats are operated – raised, lowered and tilted – by a pair of magnets on either side of the glass surface. The system's slats are 0.5" (12.7 mm) wide, making it possible to produce sealed units with a 0.78" (19.8 mm) internal air space. These thin sealed units can be installed in most standard frames.

With Venilite, you can control solar heat gain and the amount of light you let in while protecting occupant privacy.

# PROJECTS



◀ *Ericsson, Montréal, QC*  
*LoE 366 Insulating Glass Units*  
*with Low Maintenance Option*  
*and Digital In-Glass Printing*  
*MSDL Architectes*



*75-125 Binney Street -*  
*Alexandria Center, Boston, MA*  
*LoE 366 Structural Point Supported*  
*Insulating Glass Units*  
*Payette Associates* ▶



◀ *Concord Park Place- Block 17, North York, ON*  
*LoE 272 Insulating Glass Units*  
*with Digital In-Glass Printing*  
*IBI Group*



◀ *George W. Bush Presidential Library*  
*and Museum, Dallas, TX*  
*Laminated Anti-Reflective Glass*



*Résidence Université McGill-*  
*La Citadelle, Montréal, QC*  
*LoE 366 Insulating Glass Units*  
*with Low Maintenance Option*  
*Provencher Roy associés architectes inc.* ▶



▲  
*École de technologie supérieure, Montréal, QC*  
*LoE 272 Insulating Glass Units with Digital In-Glass Printing*  
*MSDL Architectes*



▲  
*Vidéotron Centre, Québec, QC*  
*LoE 366 Insulating Glass Units with Digital In-Glass Printing and Laminated Glass*  
*ABCP Architectes / GLCRM Architectes / Populous in consortium*  
*Photo: Stéphane Groleau*



▲  
*Gare Fluviale de Lévis, Lévis, QC*  
*LoE 366 Insulating Glass Units*  
*GLCRM architectes*  
*Photo: Stéphane Groleau*



Canada/United States  
[www.prelco.ca](http://www.prelco.ca)  
[www.prelco.us](http://www.prelco.us)  
 1-800-463-1325

*SunCool™ is a trademark of NSG Group.*  
*LoE<sup>2</sup> 272®, LoE<sup>3</sup> 366® and LoE<sup>2</sup> 240® are trademarks of Cardinal Glass Industries.*  
*SN68 CrystalGray®, SN68 CrystalBlue™, SN54 CrystalGray® and SN54 CrystalBlue™ are trademarks of Guardian Glass.*  
*Vanceva™ is a trademark of Eastman Chemical Company.*

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