

**We offer the largest  
selection of architectural  
glass available anywhere.**

architectural glass



**Oldcastle BuildingEnvelope®**

*Engineering your creativity™*

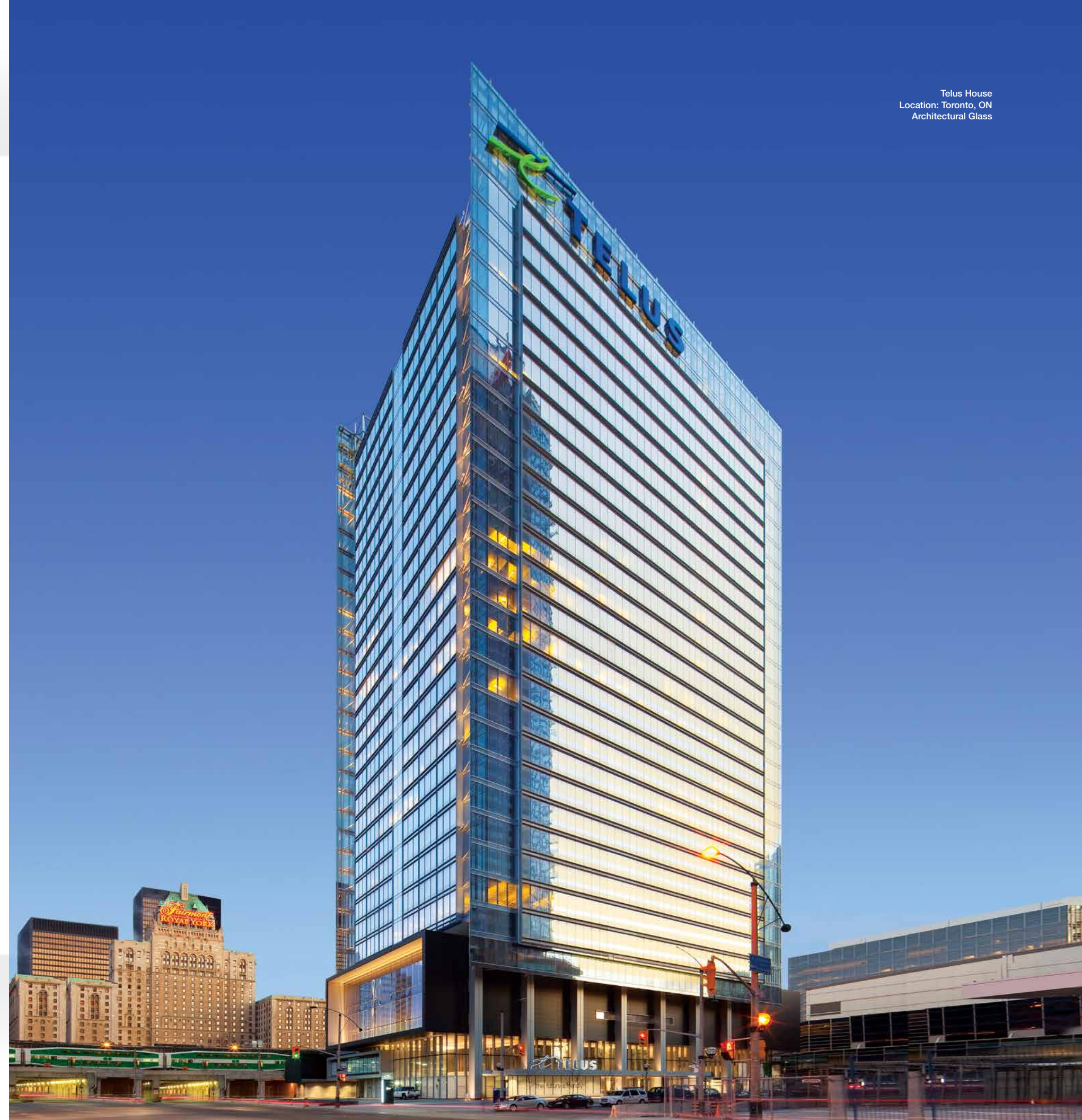
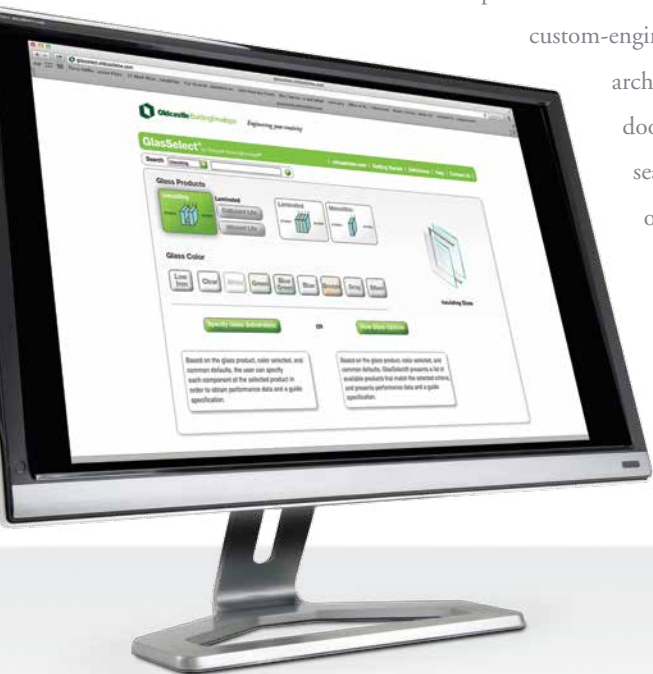
# Our high-performance architectural glass sets the industry standard.

With the largest national footprint of any manufacturer in North America, Oldcastle BuildingEnvelope® can deliver the results you want to meet your architectural glass needs. We offer some of the best engineering minds in the industry for you to rely on, as well as the experience and knowledge to handle the most complex projects. Our quality-driven approach to the design, testing and manufacturing of a wide range of architectural glass products applies state-of-the-art technologies and best practices—every step of the way.

In addition to our capabilities as the leading supplier of architectural glass, we offer the most comprehensive portfolio of products and services specified to close the building envelope. Our products include custom-engineered curtain wall and window wall, architectural windows, storefront systems, doors and skylights, along with the expertise to seamlessly integrate all of those elements into one holistic building envelope.

## PROPRIETARY SPECIFICATION SOFTWARE

GlasSelect® by Oldcastle BuildingEnvelope® is a patented glass specification tool that makes specifying glass easier by matching performance criteria with the desired aesthetic requirement.



# So why choose us as your architectural glass supplier?



## 1 THE FIRST AND ONLY BUILDING ENVELOPE COMPANY

Why specify glass from just a "glass company" when you can specify glass from a company responsible for what holds the glass in place?



## 2 INNOVATIONS IN GLASS

If it is happening in glass, chances are we are at the forefront. Our innovative decorative i-Glass® can be imprinted with any impression imaginable for a truly unique look.

Whether you need one piece of replacement glass in 24 hours or 100,000 square feet of solar control glass for a monumental project, only Oldcastle BuildingEnvelope® is uniquely organized to handle both requests seamlessly. Our strategically located plants allow us to satisfy not only your everyday architectural glass needs, but places us in the unique position to also successfully accommodate large monumental projects throughout North America. And our dozens of local manufacturing plants handle smaller scale projects on a daily basis. The benefit? You will never hear from us that your project is caught behind someone's skyscraper. We also have some of the best engineering minds in the industry for you to rely on, as well as experienced and knowledgeable local representation to help you with your daily needs. Add to that, a client list on monumental glass projects that reads like a who's who in architecture—

## 3 TRACK YOUR ORDER ANYTIME

We are committed to investing in technologies that make your job and doing business with us easier. e-Track® is our exclusive online tracking software that allows you to know exactly where your glass is, from the moment you place the order.



## 4 GLASSELECT®

Our original and patented GlasSelect® sets the industry standard for specifying architectural glass—online. Now the best online glass specification tool is even better. It features a simplified user interface, which saves you time. It also offers an almost limitless selection of glass types and options.



## 8 THE BEST TECHNICAL ASSISTANCE PERSONNEL

From your local sales and support people to some of the most experienced engineers and project managers—the industry's best people are here to help you.



## 5 WE HAVE THE LARGEST NATIONAL FOOTPRINT

Whether your next project has one or 500 locations and is in Palm Springs or Providence, we have a manufacturing location nearby.

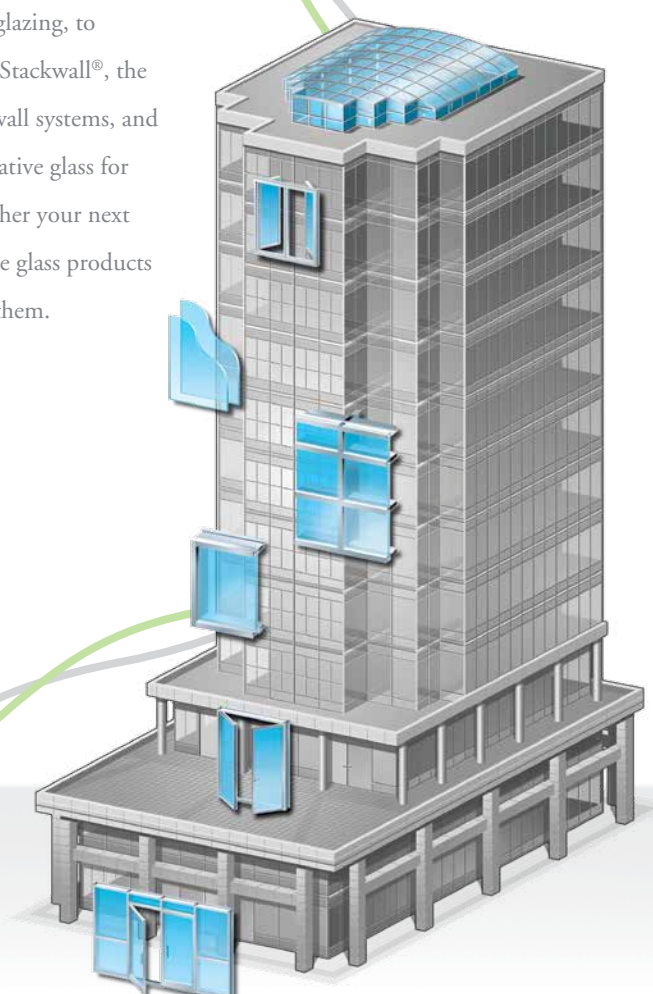
## 7 ONE WARRANTY

Peace of mind. Why juggle multiple fabricators' warranties when you can have just one?



## 6 AN INTEGRATED APPROACH

Our approach is one of integration: integrated products, processes and stakeholders. The American Institute of Architects calls it Integrated Project Delivery (IPD). It's an approach that focuses on increased collaboration among all parties involved in a building's construction. We approach each project the same way.





Wolfe Center for the Collaborative Arts



Orlando Utilities Commission



Rhythm City Skybridge



Parkland Hospital

## We are everywhere.

From Tampa to Tahoe, our architectural glass products grace some of America's most discerning buildings. And we have experience in all industries: hospitals, shopping malls, convention centers, airports, hotels, museums, universities, government and more.



Infiniti of Naperville



Omni Hotel Fort Worth



Target



Perot Museum of Nature and Science

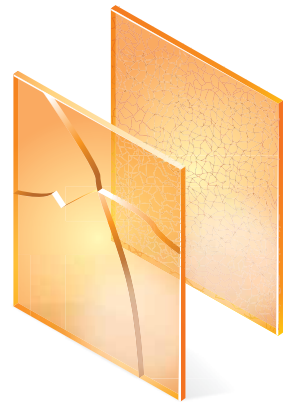


Iowa State University Recreation Facility



University of Texas Southwestern Medical Center

# Architectural Glass



## HEAT-TREATED: HEAT-STRENGTHENED & TEMPERED

### Heat-Treated Product Chart

| Products          | Strength vs. Annealed | Specifications / Standards                             | Products Attributes  |
|-------------------|-----------------------|--|--|
| Heat-Strengthened | Approx. 2x            | ASTM C1048   | Increased resistance to thermal and wind loads                   |
| Fully Tempered    | Approx. 4x            | ASTM C1048, CPSC 16 CFR-1201, ANSI Z97.1 CAN/CGSB-12.1 | Breaks into small particles, meeting safety glazing requirements |



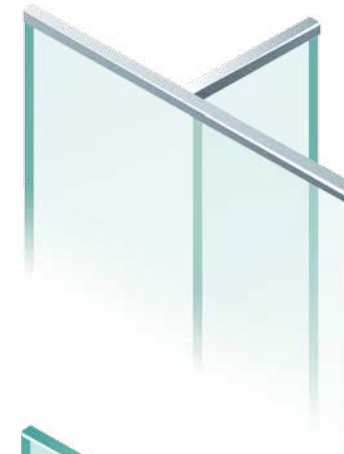
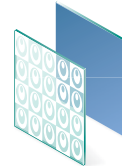
## DECORATIVE GLASS: i-GLASS®

### Specifications

|                        |                                      |
|------------------------|--------------------------------------|
| Applications:          | Interior, Exterior Glass             |
| Minimum Size:          | 12"x12"                              |
| Maximum Size:          | 96"x144"                             |
| Glass Thickness Range: | 1/8" - 1/2"                          |
| Print Resolution:      | 360 dpi                              |
| File Formats:          | PDF, PS, AI, EPS, TIFF, BMP and JPEG |

### Silk-Screened & Spandrel

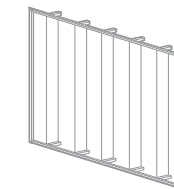
Also available. Please visit [oldcastlebe.com](http://oldcastlebe.com) for more information.



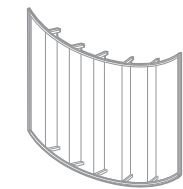
## STRUCTURAL GLASS: FINWALL®

### Capabilities

For openings less than 16' tall, exterior flush glazed wall uses interior glass fins (not metal); monolithic, laminated or insulating glass facade. Height limitations will vary according to glass type.



Typical



Segmented

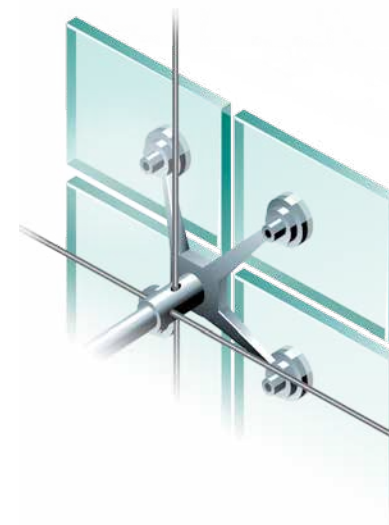


## STRUCTURAL GLASS: POINT-SUPPORT

### Capabilities

Oldcastle BuildingEnvelope® will supply point-supported glass for vertical, horizontal and sloped glazing applications as part of an engineered system. The fittings can be designed to mount to structural steel, cable, or rod substructure by others.

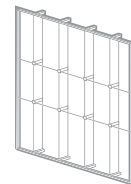
Point-supported systems can also be designed to work with the Stackwall® glass fin system.



## STRUCTURAL GLASS: STACKWALL®

### Capabilities

For a floor-loaded system less than 40' high or a suspended-fin system for taller applications and seismic loading conditions. Glass plates are joined to the fins with metal patch or "spider" fittings, and structural silicone. Metal framing (revealed or recessed) is used at the perimeter only.



Stackwall® uses structural glass mullions (fins) to provide unobstructed views. Various insulating glass make-ups can be used to maximize performance.

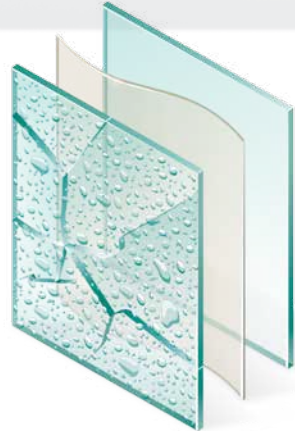
## STRUCTURAL GLASS: SPECIALTY SYSTEMS

### Capabilities

Oldcastle BuildingEnvelope® has extensive experience in the design of structural glass systems. Custom design assistance is available for structural glass applications according to project development needs.

All-glass entrance systems, insulating glass, laminated glass, or monolithic glass can engineer and supply the steel backup structure for many point-supported glass applications.

# Architectural Glass



## HURRICANE-RESISTANT: STORMGLASS™

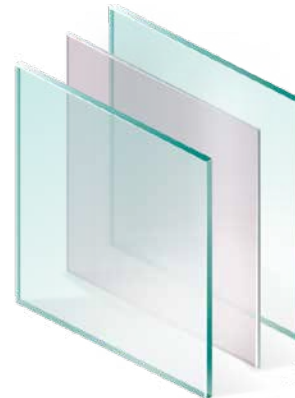
### Product Configuration

| Outboard Lite | Interlayer | Inboard Lite | Min. Thickness | Average Thickness | Max. Thickness | Weight lbs/ft <sup>2</sup> |
|---------------|------------|--------------|----------------|-------------------|----------------|----------------------------|
| 1/8"          | 0.075"     | 1/8"         | .31"           | .33"              | .35"           | 3.7                        |
| 3/16"         | 0.075"     | 3/16"        | .44"           | .46"              | .48"           | 5.4                        |
| 1/4"          | 0.075"     | 1/4"         | .51"           | .54"              | .57"           | 6.5                        |



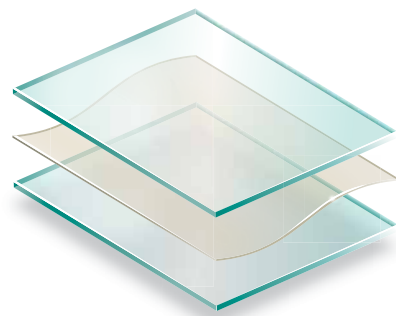
## SOUND: RESISTANT

| Glass Type           | Outboard Lite |        | Air Space | Inboard Lite |       |        | STC | OITC |
|----------------------|---------------|--------|-----------|--------------|-------|--------|-----|------|
|                      | Glass         | PVB    |           | Glass        | Glass | PVB    |     |      |
| Monolithic IG        | 1/4"          | —      | 1/2"      | 1/4"         | —     | —      | 35  | 28   |
| Monolithic Laminated | 1/4"          | 0.060" | 1/4"      | —            | —     | —      | 39  | 34   |
| Laminated IG         | 1/8"          | 0.030" | 1/8"      | 1/2"         | 1/4"  | —      | 39  | 31   |
| Double Laminated IG  | 1/8"          | 0.030" | 1/8"      | 1/2"         | 1/8"  | 0.030" | 42  | 33   |



## SPECIALTY GLASS: IONOPLAST

| Construction | Glass  |           | Thickness |    | Weight              |                   |
|--------------|--------|-----------|-----------|----|---------------------|-------------------|
|              | Glass  | Ionoplast | in.       | mm | lbs/ft <sup>2</sup> | kg/m <sup>2</sup> |
| 1/4"         | 0.035" | 1/4"      | 1/2"      | 13 | 6.3                 | 30                |
| 1/4"         | 0.060" | 1/4"      | 9/16"     | 14 | 6.4                 | 31                |
| 1/4"         | 0.090" | 1/4"      | 19/32"    | 15 | 6.6                 | 32                |

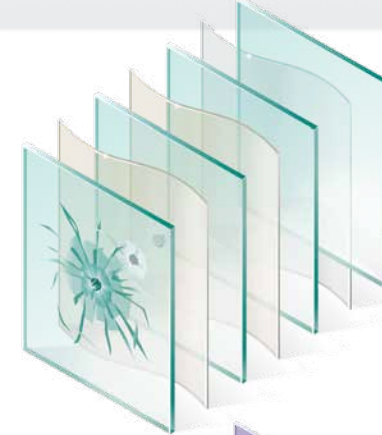


## OVERHEAD GLAZING

### Typical Products

| Nominal Thickness | Construction | Outboard Lite |      | Air Space | Inboard Lite |          |       | Weight lbs/ft <sup>2</sup> |
|-------------------|--------------|---------------|------|-----------|--------------|----------|-------|----------------------------|
|                   |              | Lite          | —    |           | Glass        | PVB      | Glass |                            |
| 9/16"             | Mono         | —             | —    | 1/4" HS   | 0.060"       | 1/4" HS  | 6.4   |                            |
| 1-3/16"           | IG           | 1/4" FT*      | 1/2" | 3/16" HS  | 0.060"       | 3/16" HS | 8.4   |                            |
| 1-5/16"           | IG           | 1/4" FT*      | 1/2" | 1/4" HS   | 0.060"       | 1/4" HS  | 9.5   |                            |

\*FT - Fully Tempered, HS - Heat-Strengthened

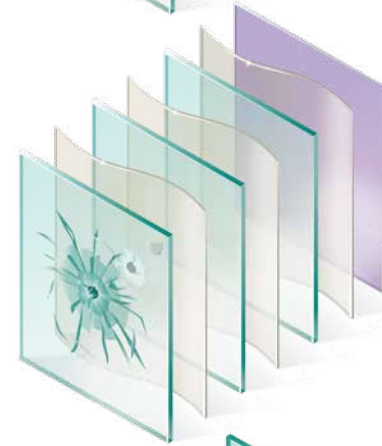


## BULLET-RESISTANT: ARMORRESIST®

### A Selection of Security Laminates for Use in Bullet-Resistant Applications

| Model# | UL 752 | Thickness in. | Weight lbs/ft <sup>2</sup> | Max. Weight | Assembly           |
|--------|--------|---------------|----------------------------|-------------|--------------------|
| 211000 | 1      | 1 3/16"       | 14.7                       | 500         | AGL <sup>(1)</sup> |
| 212000 | 2      | 1 1/2"        | 19.3                       | 500         | AGL                |
| 213000 | 3      | 1 3/4"        | 24.2                       | 500         | AGL                |
| 214000 | 4      | 2"            | 25.8                       | 500         | AGL                |
| 216000 | 6      | 1 13/16"      | 22.6                       | 500         | AGL                |

(1) All glass laminate

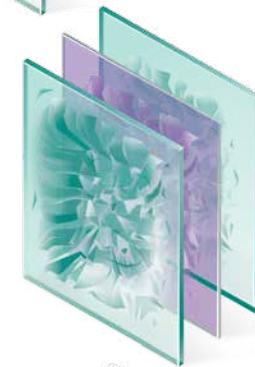


## BULLET-RESISTANT: ARMORRESIST® PLUS

### A Selection of Security Laminates for Use in Bullet-Resistant Applications

| Model# | UL 752 | Thickness in. | Weight lbs/ft <sup>2</sup> | Max. Size | Assembly          |
|--------|--------|---------------|----------------------------|-----------|-------------------|
| 222000 | 2      | 1.03          | 11.2                       | 60"x96"   | GP <sup>(2)</sup> |
| 224200 | 4      | 1.22          | 13.5                       | 60"x96"   | GP                |
| 226000 | 6      | 1.04          | 10                         | 60"x96"   | GP                |
| 228000 | 8      | 2.17          | 25.1                       | 60"x96"   | GP                |

(2) Glass with exposed polycarbonate

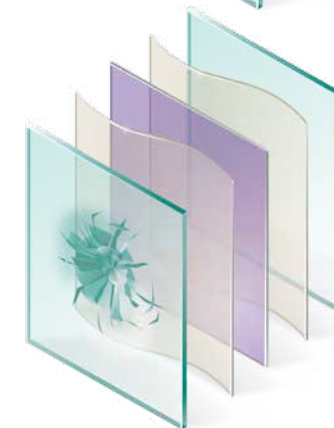


## BLAST MITIGATING

### Typical Make-Up

| Model# | Construction |        |       | Thickness |    | Weight              |                   |
|--------|--------------|--------|-------|-----------|----|---------------------|-------------------|
|        | Glass        | PVB    | Glass | in.       | mm | lbs/ft <sup>2</sup> | kg/m <sup>2</sup> |
| 110100 | 1/8"         | 0.060" | 1/8"  | 5/16"     | 8  | 3.60                | 17.6              |
| 110110 | 3/16"        | 0.060" | 3/16" | 7/16"     | 11 | 5.31                | 25.9              |
| 110120 | 1/4"         | 0.060" | 1/4"  | 9/16"     | 14 | 6.41                | 33.4              |

Listed above are constructions of laminated glass that are most commonly specified for bomb-blast resistance mitigation. These are often used in Seismic applications.



## FORCED-ENTRY: ARMORPROTECT® PLUS

### A Selection of Security Laminates for Use in Forced-Entry Applications

| Model # | HPW-TP-500        |                   |                     | Thickness in. | Weight lbs/ft <sup>2</sup> | Max. Size | Assembly           |
|---------|-------------------|-------------------|---------------------|---------------|----------------------------|-----------|--------------------|
|         | FE <sup>(3)</sup> | BR <sup>(4)</sup> | WMFL <sup>(5)</sup> |               |                            |           |                    |
| 121000  | 1                 | A                 | —                   | 7/16"         | 4.6                        | 60"x96"   | GCP <sup>(6)</sup> |
| 121100  | 1                 | A                 | —                   | 9/16"         | 5.4                        | 60"x96"   | GCP                |
| 121200  | 1                 | B                 | —                   | 11/16"        | 6.2                        | 60"x96"   | GCP                |
| 122000  | 2                 | B                 | 3                   | 13/16"        | 6.4                        | 60"x96"   | GCP                |
| 122320  | 2                 | B                 | 2                   | 15/16"        | 7.2                        | 60"x96"   | GCP                |

(3) Forced-Entry (4) These products resist bullet penetration; They are not designed to resist spalling

(5) Walker MCGough Foltz & Lyeria (6) Glass-clad polycarbonate

**We offer the most comprehensive portfolio of products specified to close the building envelope.**



**Thermal Products**

**Architectural Windows**

**Entrances and Storefronts**

**Skylights**

**Blast and Hurricane-Resistant**



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