

Architectural Design Tools

Glass Analytics

ONLINE SUITE OF ENGINEERING AND ANALYTIC TOOLS FOR GLASS

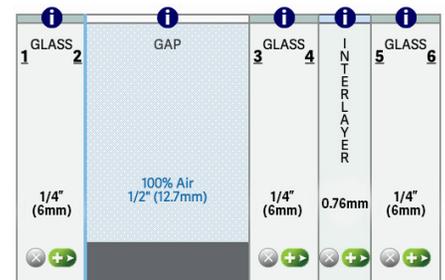
Guardian Glass has developed easy-to-use, advanced software for glass and glazing system analysis. These online tools offer a comprehensive suite of engineering and analytical reports that demonstrate the advantages of high performance glass in building facades.

Guardian Glass Analytic Tools

- Customize product options using the Performance Calculator
- Visualize under varied lighting conditions using Guardian's Glass Visualizer
- Analyze building performance using the Building Energy Calculator
- Design using Guardian's BIM Generator
- Evaluate with the Sustainability Calculator
- Estimate acoustic performance of glazing using the Acoustic Assitant

Customize

Guardian's Performance Calculator simplifies creation of glass make-ups through a simple point-and-click, web-based interface. You can use the calculator to model the thermal and optical properties for glass make-ups ranging from monolithic uncoated glass to highly complex combinations of float glass substrates, coatings and interlayers. Then easily create client-ready reports comparing glass options.



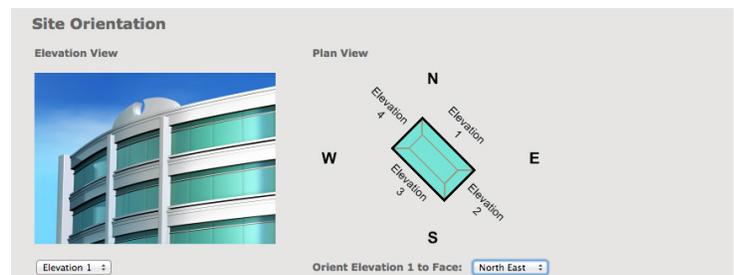
Visualize

The Guardian Glass Visualizer dynamically generates photo-realistic images of both exterior and interior glazing views. It allows the user to evaluate the aesthetic properties of virtually any glass make-up. Just choose the glass you want to visualize, select the building and perspective that suits you, and watch how various sky conditions affect the appearance of the glass.



Analyze

The Building Energy Calculator uses the make-ups created in the Performance Calculator to compare energy cost, consumption and financial payback information based on hourly simulations of glazing options, building parameters and project location. The Building Energy Calculator can be used as a schematic design tool to compare annual energy costs for a variety of exterior envelope scenarios for 63 different cities across North America to simulate a variety of climate zones.

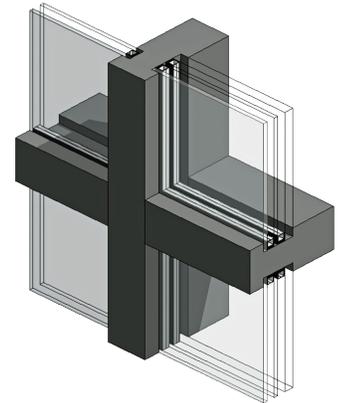


Glass Analytics

ONLINE SUITE OF ENGINEERING AND ANALYTIC TOOLS FOR GLASS

Design

The Guardian BIM Generator provides thermal and optical performances of the project specific custom IG makeups. It is highly detailed content with visibility settings to control the level of detailing depending on the scale of the view. Parameters give the ability to control the dimensions of the spacer systems as well as control the glass bite of the unit. Any fabrication needs for heat treatment or lamination can be specified which allows for a much more detailed glazing schedule and material takeoffs.

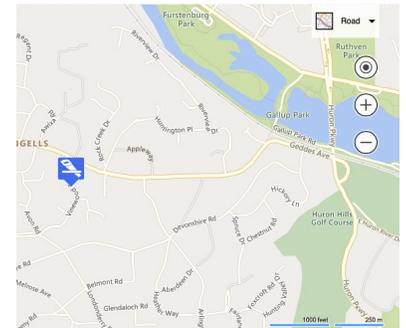


BIM Generator at a glance:

- Models project specific glass make-ups from simple to highly complex with unprecedented detail and control.
- Toggle between outdoor reflected and transmission color with accurate reflections for amazing renderings.
- Populates content with both thermal and optical data based on installation slope for a complete picture of glass performance.
- Standard or custom BIM content for the entire SunGuard product line.
- Models inboard and outboard lites for accurate material takeoffs.
- Content available as Revit curtainwall panels or window-based generic models.
- To learn more, email us at BIMhelp@guardian.com.

Evaluate

Evaluate environmental performance attributes of Guardian glass products with the new Guardian Sustainability Calculator. This easy-to-use digital program helps users see how Guardian glazing make-ups can help a project earn certification from green building rating systems such as LEED®, the Living Building Challenge and the WELL Building Standard.



Estimate

The Guardian Acoustic Assistant is a tool to estimate acoustic performance of different types of glazing. User's have the option to estimate the acoustic performance of glazing, find glazing solutions for an acoustic performance, or directly access/view the acoustic performance table.

What Rw (DB) do you need to achieve?

What Rw+C do you need to achieve?

What Rw+Ctr(dB) do you need to achieve?

ACOUSTIC ASSISTANT														
Report	Glazing Type	1st Pane	Thickness	Cavity	2nd Pane	Thickness	Cavity	3rd Pane	Thickness	Glass/Unit Performance			OITC	STC
										Rw (dB)	Rw + C (dB)	Rw + Ctr (dB)		
DOWNLOAD	Double	LamiGlass Sound Reduction	6.5mm (33.1)	10	LamiGlass Sound Reduction	6.5mm (33.1)	-	-	-	39	38	33	30	40
DOWNLOAD	Double	LamiGlass Sound Reduction	6.5mm (33.1)	10	LamiGlass Sound Reduction	6.76mm (33.2)	-	-	-	39	38	33	29	40
DOWNLOAD	Double	LamiGlass Sound Reduction	6.5mm (33.1)	10	LamiGlass Sound Reduction	8.5mm (44.1)	-	-	-	41	39	34	31	41
DOWNLOAD	Double	LamiGlass Sound Reduction	6.5mm (33.1)	10	LamiGlass Sound Reduction	8.76mm (44.2)	-	-	-	41	39	34	31	41
DOWNLOAD	Double	LamiGlass Sound Reduction	6.5mm (33.1)	10	LamiGlass Sound Reduction	9.52mm (44.4)	-	-	-	40	38	34	30	40