

Expansive Curvilinear Glass Walls



CHANNEL GLASS

BENDHEIM WALL SYSTEMS INC. | Channel Glass

BENDHEIM

Designing with Channel Glass

Light-diffusing Lamberts® channel glass promotes the entry of a large amount of natural light, while simultaneously controlling it during the day. It is ideal for buildings that require high levels of daylight and where visual transparency is not a necessity. Look to channel glass if the project meets one or more of these conditions:

Project calls for:



High-quality, diffused daylight is key – more desirable than perfectly clear views



There is an opportunity for huge glazed openings – long runs of glass up to 23 ft. tall



Glazed walls feature curves or glass-to-glass corners



There are structural weight limits on the building

Channel glass delivers:

VLT $\leq 77\%$

Cont. length ≤ 23 ft.

Curve radius ≥ 7 ft.

Weight ≤ 5.25 lbs/ft²



The glass has to meet high thermal performance targets

U-Value ≥ 0.19



Exterior glass walls that offer combined thermal & acoustic insulation

OITC ≤ 36



Interior walls that provide daylight together with acoustic & visual privacy

STC ≤ 43



The site is tight or does not allow the use of heavy installation equipment

As few as 3 installers

BUILD WITH LIGHT

Bendheim's U-shaped Lamberts® channel glass creates walls of light – with depth and profile unachievable through conventional flat glass. It offers a stunning alternative to traditional opaque building walls and flat architectural glass alike, with the ability to create virtually seamless glass walls of tremendous sizes and proportions. The three-dimensional, self-supporting glass channels can stand as tall as 23 ft. (7 m) in a relatively lightweight 1/4" (6 – 7 mm) glass thickness, facilitating design & installation. Channel glass requires minimal framing, creating a uniform appearance with clean design lines.

- ◆ Creates virtually seamless glass walls that can be hundreds of feet long and can span across elevations
- ◆ Stands as tall as 23 ft. (7 m) in a relatively lightweight 1/4" (6 – 7 mm) thickness
- ◆ Effortlessly forms serpentine curves and glass-to-glass corners
- ◆ Excellent acoustic performance: reaches STC 43 – better than 4.5" (114 mm) batt-insulated interior stud wall
- ◆ All the benefits of daylighting with added sense of privacy in a range of light-diffusing, anti-glare textures
- ◆ Low CO₂ footprint: produced using an oxygen-fueled glass-melting furnace, 100% renewable electricity, and up to 40% post-consumer recycled content (EPD available at bendheim.com/channel-glass)
- ◆ Bird-friendly tested and certified



GLASS DIMENSIONS

- Length: up to 23 ft. (7 m)
- Widths: range 9" to 19.5" (230 – 480 mm); custom sizes available for large projects
- Flange depth: 1.6" (41 mm) for interior / 2.4" (60 mm) for exterior & interior use
- Thickness: 0.24" (6 mm) for interior / 0.28" (7 mm) for exterior use

GLASS MATERIAL OPTIONS

- Regular glass with **30-40%** post-consumer recycled content (see University of Iowa Visual Arts Building on the right)
- Ultra-brilliant low-iron glass with **15-25%** post-consumer recycled content (see Fort York Visitor Center on the left)

GLASS SAFETY OPTIONS

- Standard annealed (non-safety)
- Tempered (safety glass, meets ANSI Z97.1 & CPSC 16FR safety requirements)

THERMAL PERFORMANCE (DOUBLE-GLAZED, THERMALLY BROKEN FRAME)

- With Low-e coating + thermal insulation: U-Value of **0.19**
- With thermal insulation: U-Value of **0.25**
- With Low-e coating: U-Value of **0.41**
- No enhancements: U-Value of **0.49**

LIGHT TRANSMISSION (APPROX. VLT, DOUBLE-GLAZED)

- Low-e & insulated channel glass: **40%**
- Low-e channel glass: **65%**
- Uncoated channel glass: **72%**

DESIGN SUPPORT: Our technical design team can provide specification assistance, drawings & engineering calculations. Please contact your local Bendheim representative: bendheim.com/professional/find-a-rep

TEXTURES



504 Rough Cast™



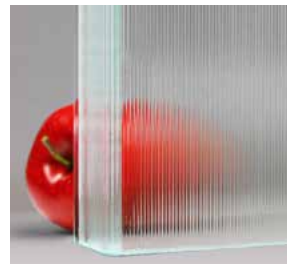
Clarissimo™



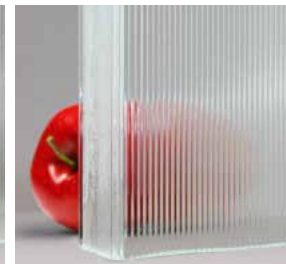
Solar™



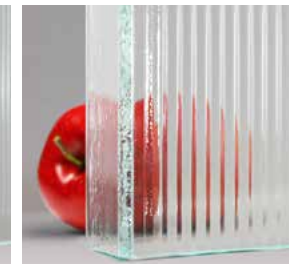
Moire™



Houdini™



Piccolo®



Primasolar™



Ice™

PERFORMANCE COATINGS & THERMAL INSULATION



Color Fritted Channel Glass

Hundreds of Opaque & Translucent Colors



Low-E Thermal Performance Coating

Iridescent Aesthetic, U-Value of 0.41



Azur (SHGC) Thermal Performance Coating

Blue-Grey Aesthetic, SHGC of 0.56



Thermal Insulation Materials (TIMs)

Translucent White Aesthetic, U-Value of 0.25

BENDHEIM CHANNEL GLASS WALL SYSTEMS



High-Performance Exterior Walls (Double-Glazed)



Rainscreens, Ventilated Facades & Decorative Screens (Single-Glazed)



Interior Partition Walls (Single & Double-Glazed)

AutoCAD & Revit drawings available on our website or by e-mail: bendheimwallsystems@bendheim.com.





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