Expansive Curvilinear Glass Walls

BENDHEIM WALL SYSTEMS INC. | Channel Glass
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 ≤ 77%**
- **Cont. length ≤ 23 ft.**
- **Curve radius ≥ 7 ft.**
- **Weight ≤ 5.25 lbs/ft²**
- The glass has to meet high thermal performance targets
- Exterior glass walls that offer combined thermal & acoustic insulation
- Interior walls that provide daylight together with acoustic & visual privacy
- 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 ¼” (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

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**TEXTURES**
- 504 Rough Cast™
- Clarissimo™
- Solar™
- Moire™
- Houdini™
- Piccolo®
- Prismasolar™
- 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.