

PILKINGTON PROFILIT™ CHANNEL GLASS SYSTEM WITH LUMIRA® AEROGEL INSULATION

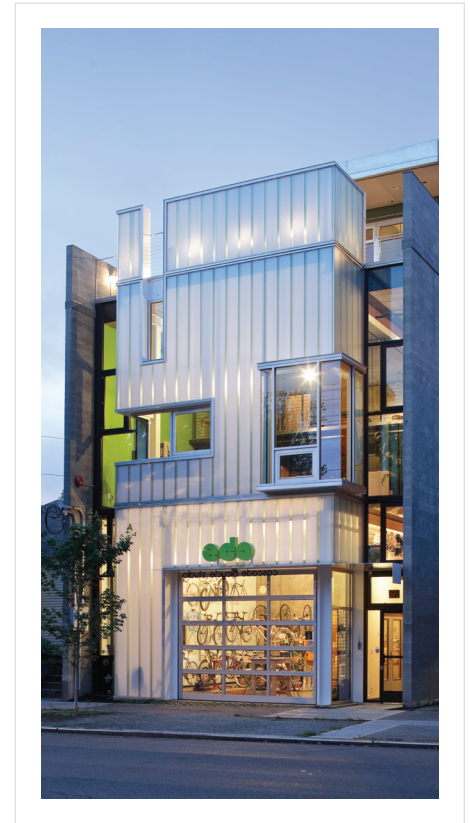
Pilkington Profilit can be filled with Lumira® aerogel, a class of lightweight insulation material produced by Cabot Corporation which is ideally suited for daylighting design. The exceptional thermal performance of Lumira aerogel helps increase energy efficiency. Lumira aerogel also promotes soft, even light dispersion, reduces unwanted noise and resists condensation. Technical Glass Products (TGP) is the exclusive supplier of Lumira aerogel.

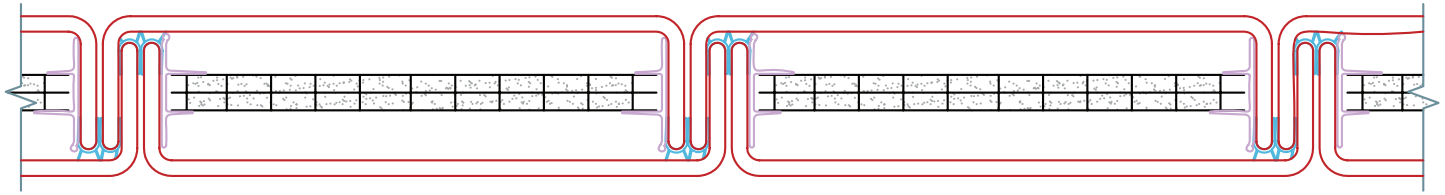
Lumira aerogel, a translucent surface-treated amorphous silica, is a safe and non-hazardous material. It is encased in 16 mm polycarbonate panels centered in the Pilkington Profilit channel glass cavity, which protect the aerogel against exposure to moisture, dirt and other debris. Lumira aerogel features an easy to install, fully finished polycarbonate panel held in place by snap-on centering clips to hold the panel in place within the glazing cavity, without slumping or sagging, during or after installation. No special tools are required.

Combined with Pilkington Profilit channel glass, all the components of the system are safe, recyclable and environmentally friendly. For projects requiring extra thermal performance, contact TGP for custom Lumira aerogel information.

FEATURES

- Increases light diffusion – eliminates glare, allows soft, even, light dispersion
- Improves acoustic performance – minimizes unwanted noise
- Exceptional thermal performance – reduces heat loss and minimizes solar heat gain
- UV stable – maintains performance over time
- Resists moisture – prohibits growth of mold, mildew and fungus
- Provides green solutions – reduces building design loads and conserves energy
- Adheres to guidelines – meets and exceeds strict building codes
- Easy to install – no special tools needed





WHAT IS AEROGEL?

Aerogel is a unique form of highly porous, non-hazardous silica, described as a lattice work of glass strands with very small pores and extremely low solids content (5% solid, 95% air). It is known as the lightest weight and best insulating solid in the world.



PERFORMANCE ANALYSIS: PRELIMINARY TEST RESULTS

K 25/60 SERIES PROFILIT	UNINSULATED	LUMIRA AEROGEL PANEL * 16MM (CLEAR)	LUMIRA AEROGEL PANEL * 25MM (CLEAR)
U VALUE (GLASS ONLY)	0.49	0.21	0.19
LIGHT TRANSMISSION	70%	50%	38%
SOLAR HEAT GAIN COEFF. (SHGC) (NFRC 200)	0.63	0.42	0.31
SOUND TRANSMISSION COEFF. (STC) - (E 90)	42	44	44
CONDENSATION RESISTANCE FACTOR (CRF) (AAMA 1503)	G 70 F 60	G 79 F 60	G 79 F 60

* Additional Lumira aerogel options, including polycarbonate colors and 25 mm panels for increased performance, are available. Please contact TGP.

DESIGN OPTIONS

Surface Textures

All textures can be sandblasted unless they have a surface-applied specialty coating.

- **Standard:** lightly dimpled surface
- **Macro:** netted screen surface
- **Slim Line:** thin, linear grooves
- **Wave:** well defined ridge texture
- **Clear:** no visible texture

Glass Colors

- **Standard Cast:** standard channel glass has an inherent slight green hue
- **Low Iron:** Pilkington Profilit™ OW (Low-Iron) is a low iron composition glass that creates a nearly colorless product with improved light transmission. Please see Pilkington Profilit OW (Low-Iron) fact sheet for more information.

Color Coatings/Sandblasted

All coatings can be applied onto all available textures.

- **Amethyst:** slight blue transparent coating
- **Opaque Enameled Frit:** a variety of opaque colored frits that are heat tempered to the glass
- **Opaque Color Coating:** a variety of high performance opaque colors that don't require tempering, most RAL color system options are available
- **Metallic Color Coating:** opaque custom-blended, high-performance metallic colors that don't require tempering
- **Sandblasted:** improves privacy while allowing light transmission; can be applied to all textures (unless they have a surface-applied specialty coating)

Functional Coating

- **Low-E:** improved U-values

