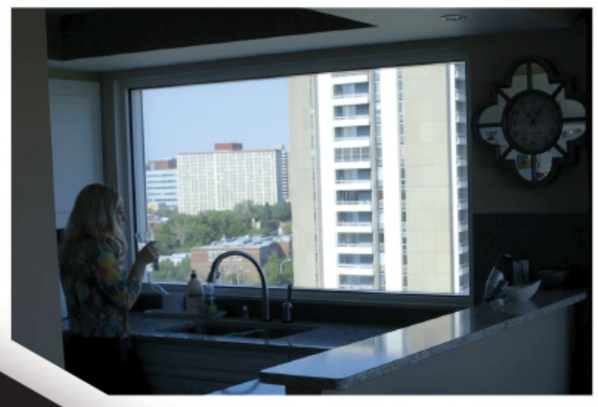
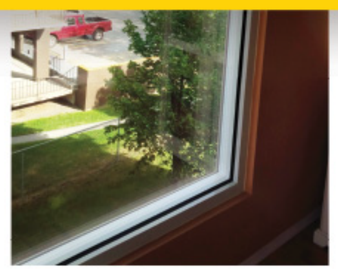
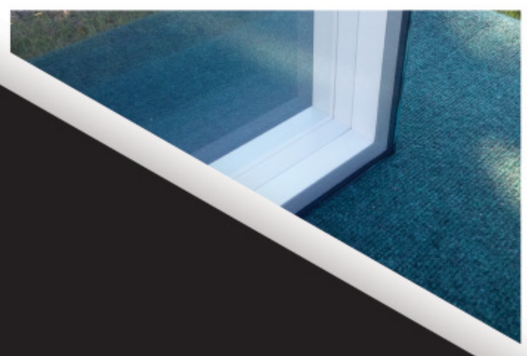
LiteZone® GLASS INC.

LiteZone® insulating glass makes possible the world's most energy efficient windows.







CANADA GREEN BUILDING COUNCIL
WINNER 2016
CaGBC PRODUCT OF THE YEAR

LiteZone® is an Award Winning Product

The Canada Green Building Council named LiteZone® insulating glass the 2016 winner of its prestigious "Green Building Product of the Year Award".

LiteZone® GLASS INC.

Ultimate Energy Efficiency

Windows using LiteZone® achieve insulating values up to 2.8 times greater than triple pane windows.

- Up to R18.7, U=0.0535, for a window including both the glass and frame, and R21.7, U=0.0461, for centre of glass (NFRC method)
- Thicker insulating glass units (IGUs) allow large thermal breaks necessary for high window insulating values
- Customizable to desired thickness, performance and budgets
- Dramatically reduces energy costs for heating and cooling
- Reduces the size and cost of equipment for heating and cooling
- Allows for thinner walls with less insulation while still achieving the required overall wall insulating values
- Makes the use of renewable energy sources more feasible (e.g. solar panels, geothermal, etc.)
- Allows "net zero carbon" and "passive house" construction to be more easily achieved
- Thermal performance has been verified by an independent testing agency

Extreme Longevity

The expected life of LiteZone® glass units is more than 60 years; about 3 times the average life of triple pane units and similar to the life of a building.

- Air filled and therefore has no concerns with deteriorating insulating values or with decompression of IGUs due to escaping argon or krypton
- Pressure equalized to reduce IGU stress and ensure a long life
- Edge seal is impermeable to water vapour (conventional IGU edge seals are not)
- Structural connection of the glass to the spacer is more than 3 times stronger than in conventional IGUs
- All materials are durable and have the same or similar coefficients of linear thermal expansion to reduce stress due to changing temperatures

Lowest Life Cycle Costs

Because of its extreme longevity and energy efficiency, LiteZone® insulating glass is the least expensive choice in the long run.

- Will have life cycle costs that are 40% to 70% less than triple pane IGUs, depending on the LiteZone® glass unit used
- Life cycle costs include the energy savings and the cost to replace IGUs during the estimated 60-year life of a building

LiteZone® GLASS INC.

Superior Human Comfort

The inside surface temperature of windows using LiteZone® will remain near room temperature to help ensure living spaces are always comfortable regardless of how hot or cold it is outside.

- Helps eliminate chills from radiant exchanges between people and cold windows
- Greatly reduces uncomfortable drafts due to downward air convections near cold windows
- Eliminates problems with condensation on cold glass and cold window frames even when rooms have high relative humidity
- Reduces building overheating problems during warm weather due to both solar gains and conduction from hot outside air

Excellent Sound Insulation

Windows using LiteZone® can achieve sound insulation that is comparable to an 8" thick concrete block wall.

- Most windows using LiteZone® will have a minimum Sound Transmission Class (STC) of 40
- Can be made to achieve sound insulation as good as the best acoustic windows, but at a lower cost because sound insulation is a natural result of the basic LiteZone® construction

Maximum Design Flexibility

Provides design flexibility to allow generous glass areas with unimpeded views using windows as large as 6’ x 10’.

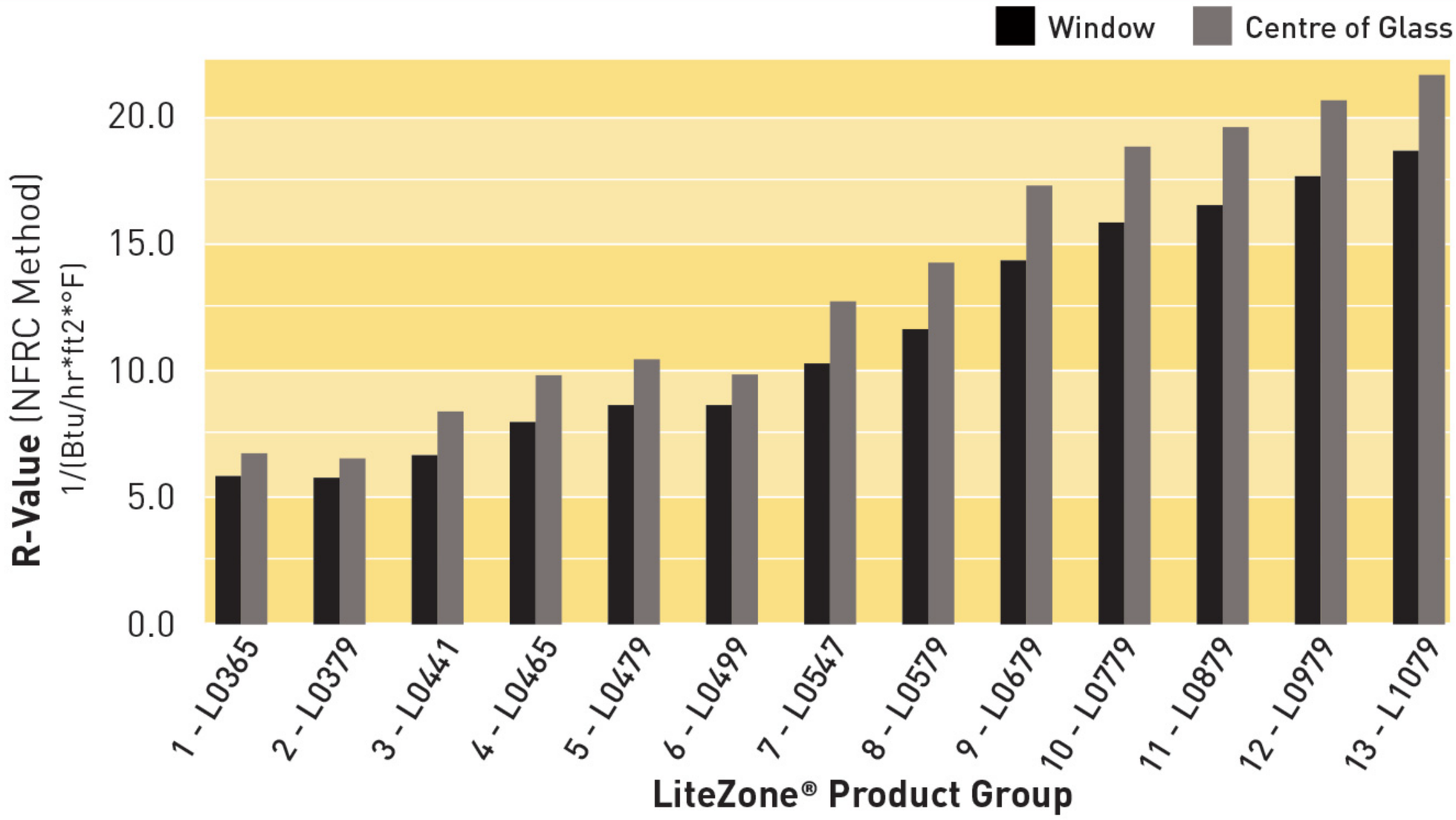
- Uses layers of suspended films to achieve glass units with much higher insulating values but with less weight than triple pane units
- Allows a reduction in cost and improved performance by reducing the number of thermally inefficient and expensive frame members dividing a glass area
- Use more and larger windows facing any direction and still achieve highly energy efficient and exceedingly comfortable living spaces

LiteZone®—a breakthrough in insulating glass technology

LiteZone® GLASS INC.

LiteZone® Highest R-Values by Product Group

By increasing the number of suspended films, the number of low emissivity coatings, and by increasing the glass unit thickness, LiteZone® can achieve higher, previously unheard of window insulating values.



LiteZone® Performance Ranges (NFRC Method)

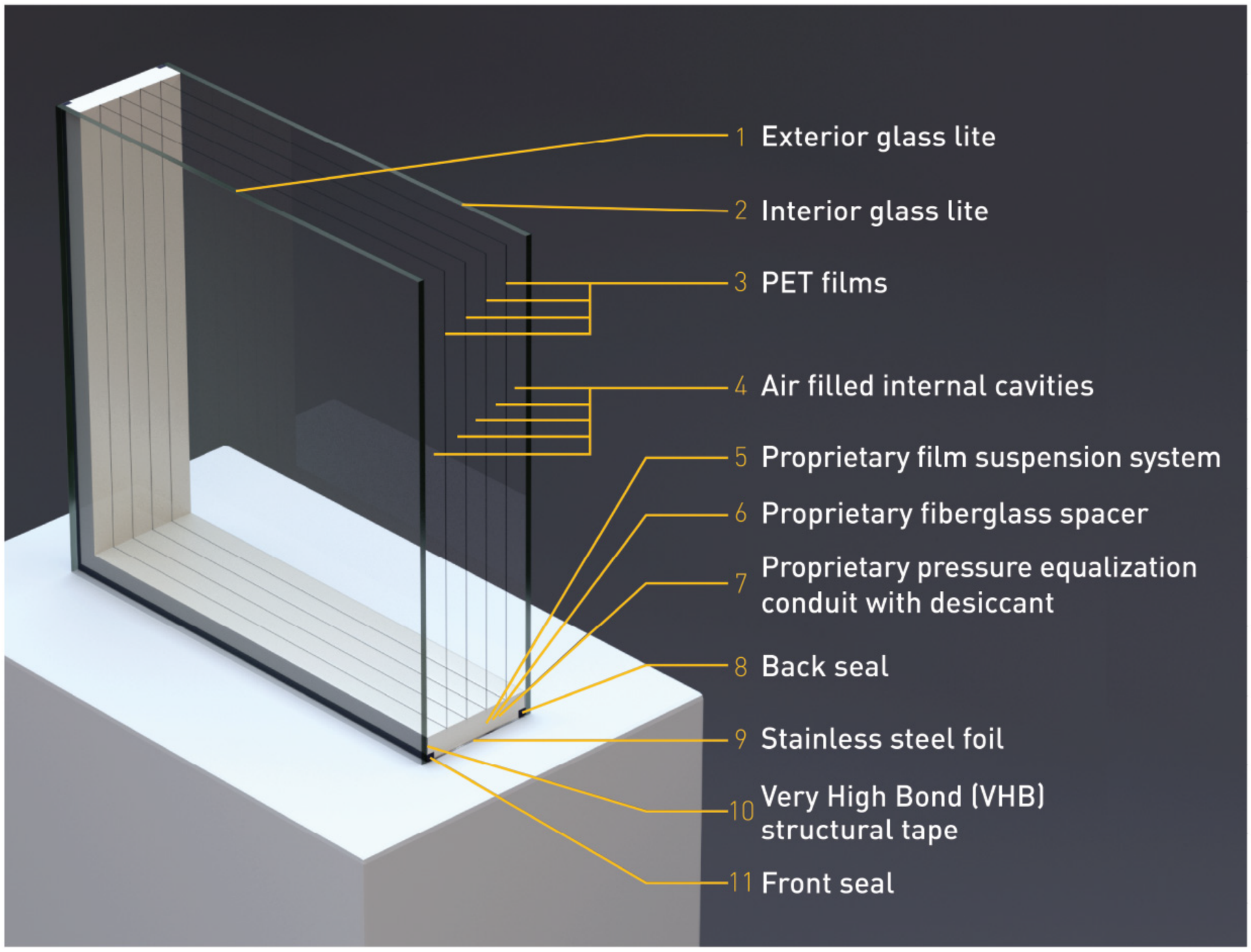
Product Group	No. of Layers		Gap Size (Inches)		Unit Thickness (Inches)	LiteZone® Insulating Glass Performance Ranges									
						Centre of Glass R-Value 1/(Btu/hr*ft2*°F)		Shading Coefficient		Solar Heat Gain Coefficient		Visible Light Transmission		Window R-Value Range 1/(Btu/hr*ft2*°F)	
	Glass	Film	A	B		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1	L0365	2	1	0.65	n/a	1.75	3.2	6.8	0.25	0.73	0.22	0.63	0.51	0.70	3.3	5.9
2	L0379	2	1	0.79	n/a	2.02	3.1	6.5	0.25	0.73	0.22	0.63	0.44	0.70	3.3	5.8
3	L0441*	2	2	0.41	0.47	1.75	3.9	8.3	0.21	0.66	0.19	0.57	0.36	0.63	3.8	6.6
4	L0465	2	2	0.65	0.47	2.22	4.1	9.9	0.21	0.66	0.18	0.57	0.36	0.63	4.1	8.0
5	L0479	2	2	0.79	0.79	2.81	4.2	10.3	0.21	0.66	0.18	0.57	0.36	0.63	4.3	8.7
6	L0499	2	2	1.04	0.79	3.32	4.2	9.9	0.21	0.66	0.18	0.57	0.36	0.63	4.3	8.7
7	L0547*	2	3	0.79	0.47	2.97	5.1	12.5	0.18	0.60	0.16	0.52	0.33	0.58	5.1	10.2
8	L0579	2	3	0.79	0.79	3.61	5.3	14.1	0.18	0.60	0.15	0.52	0.33	0.58	5.4	11.7
9	L0679	2	4	0.79	0.79	4.38	6.4	17.2	0.18	0.55	0.15	0.48	0.32	0.53	6.4	14.3
10	L0779*	2	5	0.79	0.79	5.19	7.5	18.9	0.17	0.51	0.15	0.44	0.29	0.49	7.5	15.9
11	L0879*	2	6	0.79	0.79	5.98	8.5	19.6	0.17	0.47	0.15	0.41	0.29	0.45	8.5	16.5
12	L0979*	2	7	0.79	0.79	6.77	9.6	20.8	0.16	0.44	0.14	0.38	0.27	0.42	9.5	17.8
13	L1079*	2	8	0.79	0.79	7.56	10.6	21.7	0.15	0.41	0.13	0.36	0.25	0.40	10.6	18.7

** Product group will become available at a future date.*

LiteZone® GLASS INC.

Construction of a LiteZone® Insulating Glass Unit

The illustration below shows the construction of a LiteZone® L0679 glass unit that achieves R17.2, U=0.0581, centre of glass using four suspended PET films.



LiteZone® GLASS INC.

Buy Windows That Use LiteZone® Insulating Glass

LiteZone Glass Inc. manufactures LiteZone® insulating glass units (IGUs) in Canada for sale to anyone wishing to purchase truly high performance and long-lasting insulating glass. A growing number of window manufacturers offer their customers an option to use thicker, higher performing LiteZone® glass units in their window systems. Contact us for a list of manufacturers that use LiteZone® glass units in fiberglass, wood, thermally broken aluminum, or vinyl window framing systems.

Buy Four-Season Sunrooms Using LiteZone® Insulating Glass

True four-season sunrooms are now available with LiteZone® insulating glass. Enjoy a beautiful sunroom that's always comfortable without high energy costs, even in winter. Contact us for a list of sunroom manufacturers that use LiteZone® glass units.

Upgrade or Replace Your Existing Windows

Dramatically increase the insulating value of your existing windows (e.g. from R2 to greater than R8) by upgrading to higher performing LiteZone® insulating glass. Use LiteZone® in your existing window frames or replace your windows entirely. Contact us for an estimate and assistance finding the optimal LiteZone® solution for your project.

Use PACE Financing to Buy LiteZone®

Property Assessed Clean Energy (PACE) financing may be available in your area to pay for your purchase of LiteZone® insulating glass. Visit www.paceab.ca to learn more.

Warranty

All LiteZone® insulating glass units have a 25 year manufacturer's warranty against seal failure and deterioration of thermal performance.

Contact Us

Let us work with you on your next window project. We can recommend a window manufacturer and help you select the ideal LiteZone® insulating glass units to meet your needs.

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