



VTECH Skylights
solid-state skylight technology

**Shedding light on the
world's toughest skylight.**

The Company

VTECH Industries is a leading innovator in the skylight industry, offering a product like no other in existence. **Our patented materials and processes** allow us to offer the first and only Solid-State Skylight that exceeds all required codes (including Dade County, Florida), a transferable warranty that surpasses all industry standards, and a product that is truly without equal. VTECH was founded in 2000, and has over 10 years of Reaction Injection Molding (RIM) Technology, research and development, as well as 25 years of practical, real-world experience. With our knowledgeable staff and superior customer service, **you get what you want, when you want it.**



No skylight under the sun can outperform our Solid-State system.

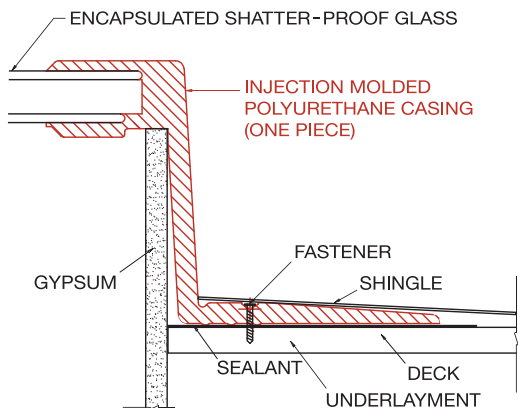
In order to create a next-generation skylight, we had to utilize state-of-the-art materials and manufacturing processes. These superior technologies result in a truly remarkable product. VTECH Skylights, a cost-effective solution to an age-old problem, has without a doubt, the toughest skylights on the market.

The Technology Behind Our Skylights

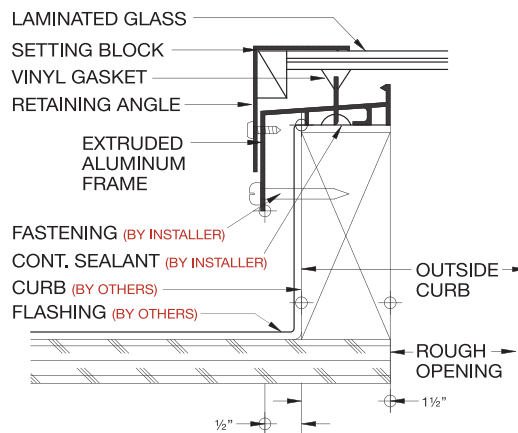
By utilizing the innovative Reaction Injection Molding process, VTECH has engineered skylights that **will not leak, warp or require maintenance.** The RIM process is similar to traditional injection molding, except that a chemical reaction occurs under low pressure within the mold. The process employs thermoset polyurethane, instead of thermoplastic polymers seen in standard injection molding. The polyurethane and the ISO are blended, then shot into the mold, forming the frame of the skylight. This **single-piece system** is created by fusing the aliphatic polyurethane directly to the lighting surface. A continuous, high-performance bond is formed, eliminating the chances of failure due to improper installation, weathering or large hail.



The VTECH Advantage – A Solid-State System



Our Competitors



We broke the mold with this system. Actually, we built a better mold.

The Product

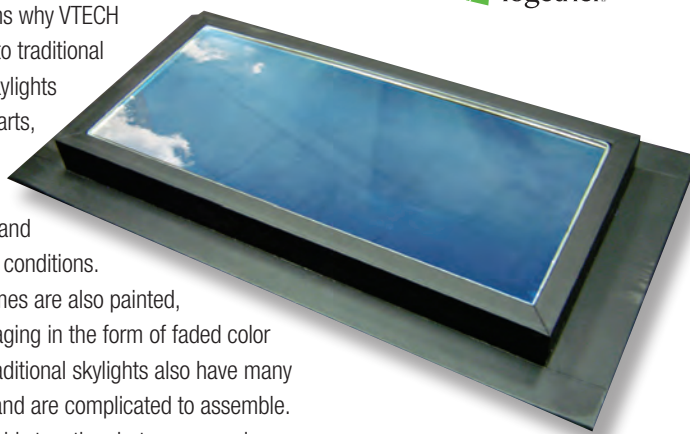
VTECH Skylights' innovative application of technology allows you to bring the warmth of natural daylight into your environment, with absolutely no worry of leakage. VTECH's specific goals in creating the world's toughest skylight were to withstand damage from extreme weather conditions, and facilitate installation, while enhancing worker safety. Our skylight passed the prestigious **AAMA Gold Label Certification, Class 4 Large Hail Test, and OSHA Fall Protection Test** with flying colors. Details of these and other rigorous tests can be found on the following page of this brochure.

What Makes VTECH's Skylights So Smart?

Strength, performance, energy efficiency and sustainability. We engineered **the first and only Solid-State Skylight**, which significantly outperforms our "competition" in terms of durability, longevity and ease of installation. By creating a whole new category of **smart skylights**, we have raised the industry bar for enabling indoor natural light.

VTECH Skylights vs. Traditional Skylights

There are many reasons why VTECH Skylights are superior to traditional skylights. Traditional skylights use numerous metal parts, which are susceptible to wide temperature fluctuations, large hail and other extreme weather conditions. Traditional skylight frames are also painted, which results in rapid aging in the form of faded color and surface cracks. Traditional skylights also have many different components and are complicated to assemble. Screws hold the assembly together, but can come loose over time. Lastly, traditional skylights utilize silicon sealants which age poorly, and quickly lead to vulnerabilities, therefore accelerating the inevitable water leaks.



Some of the benefits of the VTECH Solid-State Skylights include:

- > **100% leak proof system**
- > **One piece system** – No gaskets, seals, metal or welds—no weak joints or seals to fail.
- > **Ice and snow loads** – Performs equally on both sloped and flat roof systems.
- > **Continuous frame** – No welds or mechanically-attached frames. Neither gaskets nor glazing are required. VTECH offers the only true Seamless Self-Flashing unit.
- > **Easy to install and maintenance free**
- > **Cost-effective** – Our superior design maximizes energy efficiency and delivery of natural light to help lower energy costs.
- > **Available light insertion options** – Glass, Polycarbonate with or without Lumira-Aerogel, and Polycarbonate with or without Acrylic Dome.
- > **Polyurethane frame** allows for deck deficiencies.
- > **Patented aliphatic polyurethane material** guarantees the life of the product.
- > **Glass material is encapsulated in polyurethane** with 25 Years of documented "glass encapsulation" without one field failure.
- > **No-hassle transferable warranty**
- > **Superior customer service**



Some of the rigorous tests and certifications the VTECH Solid-State Skylights have undergone and passed with flying colors includes:

- > **DOD UFL 4-010-01** - Meets Criteria.
- > **Miami Dade County Approved** - NOA# 10-1004.03.
- > **TAS 201** - Miami Dade Large Missile Impact.
- > **TAS 203** - Miami Dade Cyclic Wind Load; +/- Pressure.
- > **Florida Building Code** - FL#14536/FBC Organization #PDM9259.
- > **AAMA Gold Label Certification**
- > **Energy Star Partner**
- > **OSHA Fall Protection Certification**
- > **TDI Approved**
- > **U.S. Green Building Council (USGBC)**
- > **ARCAT Green Certification**
- > **FM 4473** - Class 4 Large Hail Certified.
- > **UL** - Class B Burning Brand Certified.
- > **ICC-ES AC17** - Performance.
- > **NFRC Thermal Performance** - Glass U-Factor values range from 0.38-0.43 and SHGC values range from 0.24-0.26; Acrylic Polycarbonate U-Factor values range from 0.33-0.35 and SHGC values range from 0.50-0.54.
- > **ASTM D4226-00** - Impact Resistance.
- > **ASTM D746-98** - Brittleness.
- > **ASTM D635-98** - Flammability.
- > **ASTM D1929-96** - Spontaneous Ignition Temp.
- > **ASTM D2843-99** - Smoke Density.
- > **ASTM D4803-97** - Heat Build-Up.
- > **ASTM D638-03** - Tensile.
- > **ASTM D790-03** - Flexural.
- > **ASTM D2565** - Xenon Arc Exposure of Plastics.
- > **ASTM E283** - Air Infiltration.
- > **ASTM E330** - Uniform Load; +/- Load.
- > **ASTM E547/E331** - Water Resistance.

Go Green with Natural Light from VTECH Skylights

These days "going green" is a popular phrase, and with VTECH Solid-State Skylights "saving green" is a phrase that goes hand in hand. When you purchase and install a highly-durable, glass or polycarbonate VTECH Skylight, a lower energy bill is just the beginning.

Daylighting is the most economical and environmentally responsible lighting technology available today. Skylights save energy by providing illumination to buildings, thereby reducing the need for electric lighting. Daylighting is more efficient than solar energy, or any other technology converting the sun to electricity. Skylights do not convert the sunlight, but instead use its natural form.



We test hard, so you can rest easy.

The Testing

In order to prove that VTECH Skylights are best-in-class, it was necessary to submit them to extensive testing far beyond our competition, or the industry standard. VTECH Skylights have been tested to withstand large object impact, air infiltration, water penetration, uniform load deflection and thermal transmittance. **All test results exceed current industry standards.** See for yourself how well our skylights performed by visiting the videos section of our website.



Our test, submerged over 3 years in water with rapidly altered temperatures, is still completely leak free!

What the Tests Mean

- **Class 4 Large Hail** - A 2" ice ball is shot at the light from a cannon at 120 mph. Our Solid-State skylight suffered no visible damage.
- **OSHA Fall Protection** - A 200 lb. weight is dropped from a height of 5 ft. (equal to 1,000 psf of energy at impact), directly on the center of the skylight. The weight failed to penetrate the light.
- **Miami Dade Large Missile Impact** - An 8' 2x4 is shot twice from a cannon, once in the center of the light, and again in the corner. The projectile failed to penetrate the light.
- **Miami Dade Cyclic Test** - 90 psf of alternately positive and negative air pressure is applied against over 5,000 cycles. Our skylight suffered no cracks or tears.
- **AAMA Cycle Test** - 130 psf of alternately positive and negative air pressure is applied against over 5,000 cycles. Our skylight exceeded test expectations.
- **Ice and Snow Loads** - Performs equally on both sloped and flat roof systems. Tested to 504 psf = 8,064 lbs. No skylight under the sun can outperform our Solid-State system.

The difference
is clear.

Our Lumira-Aerogel skylights offer the most energy efficient skylights on the market today.

Lumira-Aerogel

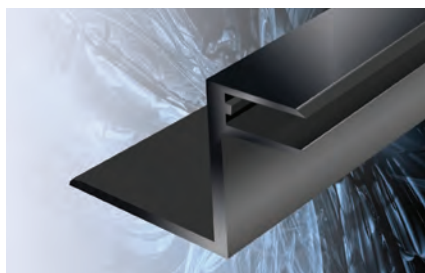
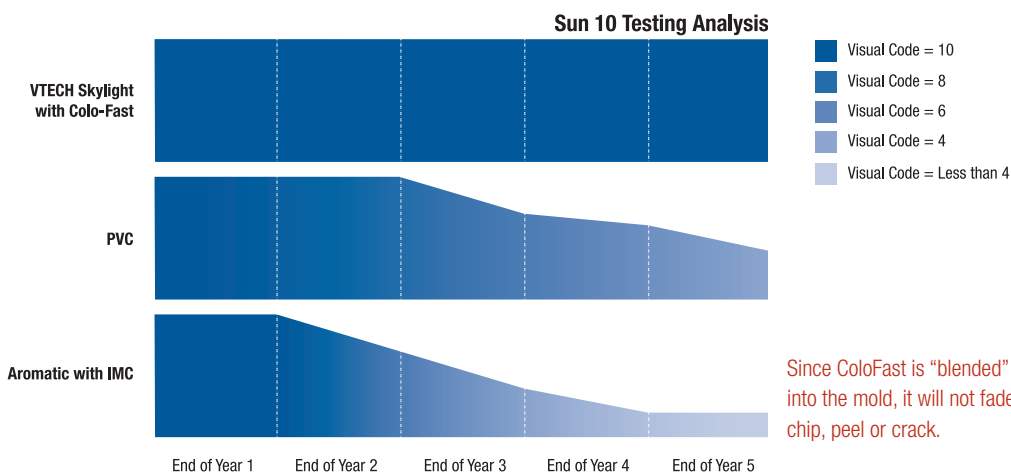
Lumira-Aerogel is a type of insulation mainly used in the manufacturing industries, as well as by oil and gas businesses. It is an aerogel that consists of 95% air, in nano-sized pores, that inhibits heat transfer through the aerogel. The revolutionary product can easily adapt to different climates.

This translates into unsurpassed thermal efficiency (superior U-values), high-quality diffused light (no more "hot spots"), and improved noise reduction.

Since these performance benefits are important to our customers, VTECH Industries is one of the only companies in the world to offer the option of Lumira-Aerogel filled skylights. **Our solar system heat gain coefficient (SHGC) is as low as .15 to .3 (depending on the model) with 60 to 73% light—and a U-value of .25.**



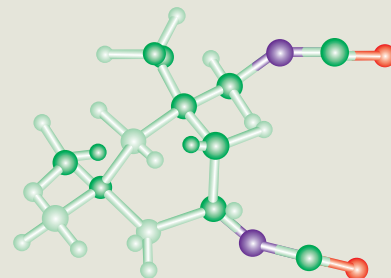
Our patented aliphatic polyurethane materials allow us to offer a product that exceeds all required codes and a transferable warranty that exceeds all industry standards.



VTECH Skylights are made from a highly durable, weather-proof aliphatic polyurethane which eliminates all of the disadvantages and vulnerabilities of traditional skylight systems.

ColoFast® is a high-density polyurethane material used in the VTECH Skylight framing with excellent performance and weather resistance. There are many benefits to the ColoFast system including:

- > **Outstanding weathering properties** – Aging has no effect on the ColoFast materials. No discoloration over time.
- > **Will not chip** – No surface cracking or gloss change.
- > **Allows integration of various functions**
- > **Covers a wide range of products** – From very flexible to very solid.
- > **Recommended for all visible parts and/or large visible surfaces.**
- > **Enables part & function integration** – Handles, hinges, bolts, studs and appliques.
- > **Low specific gravity** – (1.0) Flows smoothly to fill mold.
- > **Various flexural modulus ranges** - (Hardness) 15-250 MPa (2-35 kpsi).



Since ColoFast is "blended" into the mold, it will not fade, chip, peel or crack.

Curb Mounted Cap Skylights (CMC)

VTECH's Patented Curb-Mounted Cap Skylight offers a simple install on a new or existing curb, coupled with the clarity and durability of energy-efficient, LoE3, argon-filled dual-glass or polycarbonate panels. Heavy-duty materials ensure the CMC skylight is built to withstand the installation process, as well as anything Mother Nature throws its way. Available in standard sizes for both residential or commercial applications, these superior products are backed by an all inclusive, 10 to 20-year transferable warranty, based on the product.



Glass - Standard, Safety or Hurricane Glass (CMC)

20-Year Fall Protection Warranty on Hurricane Glass.



Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 CMC	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	26 1/4" x 26 1/4"	24"
2X4 CMC	22 1/2" x 46 1/2"	21 1/2" x 45 1/2"	26 1/4" x 50 1/4"	24"
3X3 CMC	30 1/2" x 30 1/2"	29 1/2" x 29 1/2"	34 1/4" x 34 1/4"	16"
4X4 CMC	46 1/2" x 46 1/2"	45 1/2" x 45 1/2"	50 1/4" x 50 1/4"	16" or 24"

U-Factor Values: Range from 0.38-0.42; **SHGC Values:** Range from 0.25-0.26.



Acrylic Dome Over Polycarbonate - with Lumira-Aerogel (CMC)

10-Year Fall Protection Warranty.



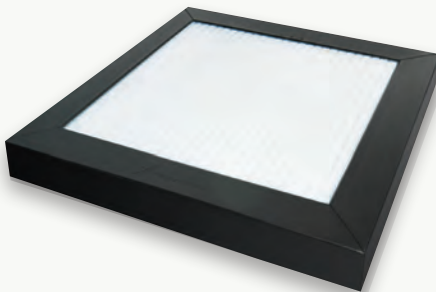
Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 CMC	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	26 1/4" x 26 1/4"	24"
2X4 CMC	22 1/2" x 46 1/2"	21 1/2" x 45 1/2"	26 1/4" x 50 1/4"	24"
4X4 CMC	46 1/2" x 46 1/2"	45 1/2" x 45 1/2"	50 1/4" x 50 1/4"	16" or 24"

U-Factor Value: 0.33; **SHGC Value:** 0.54.



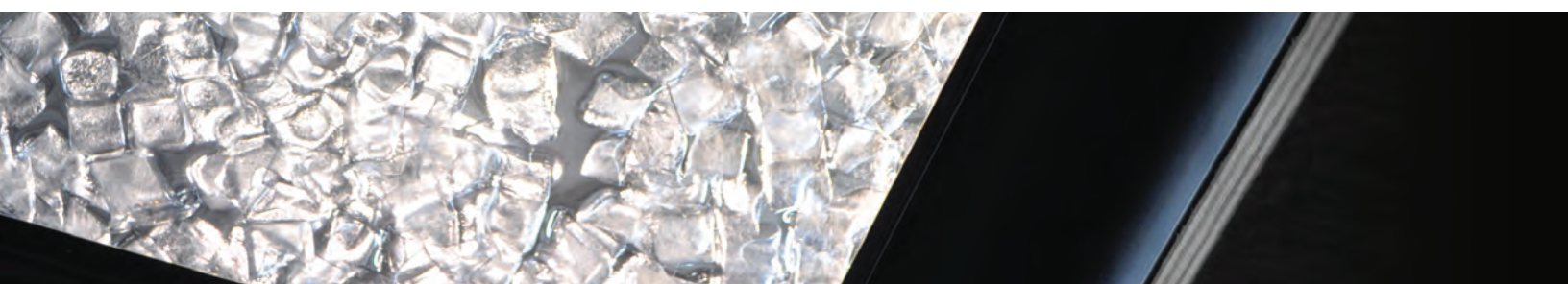
Polycarbonate - with Lumira-Aerogel (CMC)

10-Year Fall Protection Warranty.



Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 CMC	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	26 1/4" x 26 1/4"	24"
2X4 CMC	22 1/2" x 46 1/2"	21 1/2" x 45 1/2"	26 1/4" x 50 1/4"	24"
3X3 CMC	30 1/2" x 30 1/2"	29 1/2" x 29 1/2"	34 1/4" x 34 1/4"	16"
4X4 CMC	46 1/2" x 46 1/2"	45 1/2" x 45 1/2"	50 1/4" x 50 1/4"	16" or 24"

U-Factor Value: 0.33; **SHGC Value:** 0.54.



Seamless Self-Flashing Skylights (SSF)

VTECH's Patented Seamless Self-Flashing Skylight is a simple install for new skylight applications, and is as durable and leak-resistant as the rest of the roof. No pre-built curb is necessary for the SSF installation. Due to the nature of the aliphatic polyurethane, VTECH's Solid-State Skylights, as opposed to traditional skylights, can be installed with any type of roofing products and materials. Available in standard sizes for both residential or commercial applications, these superior products are backed by an all inclusive, 10 to 20-year transferable warranty, based on the product.

Glass - Standard, Safety or Hurricane Glass (SSF)



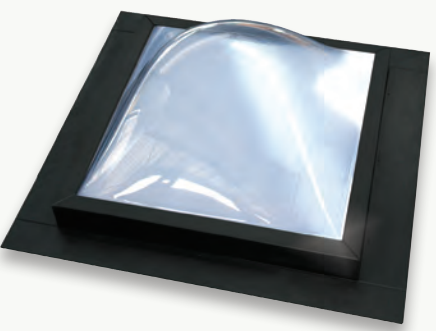
20-Year Fall Protection Warranty on Hurricane Glass.



Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 SSF	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	N/A	24"
2X4 SSF	22 1/2" x 46 1/2"	21 1/2" x 45 1/2"	N/A	24"
3X3 SSF	30 1/2" x 30 1/2"	29 1/2" x 29 1/2"	N/A	16"

U-Factor Values: Range from 0.39-0.43; **SHGC Value:** 0.24.

Acrylic Dome Over Polycarbonate - with Lumira-Aerogel (SSF)



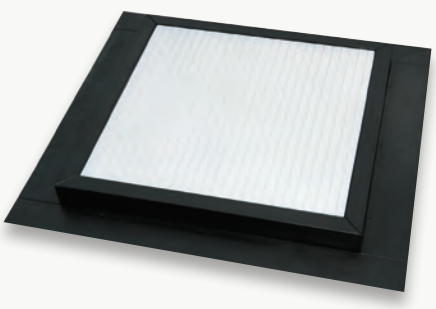
10-Year Fall Protection Warranty.



Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 SSF	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	N/A	24"
3X3 SSF	30 1/2" x 30 1/2"	29 1/2" x 29 1/2"	N/A	16"

U-Factor Value: 0.35; **SHGC Value:** 0.50.

Polycarbonate - with Lumira-Aerogel (SSF)

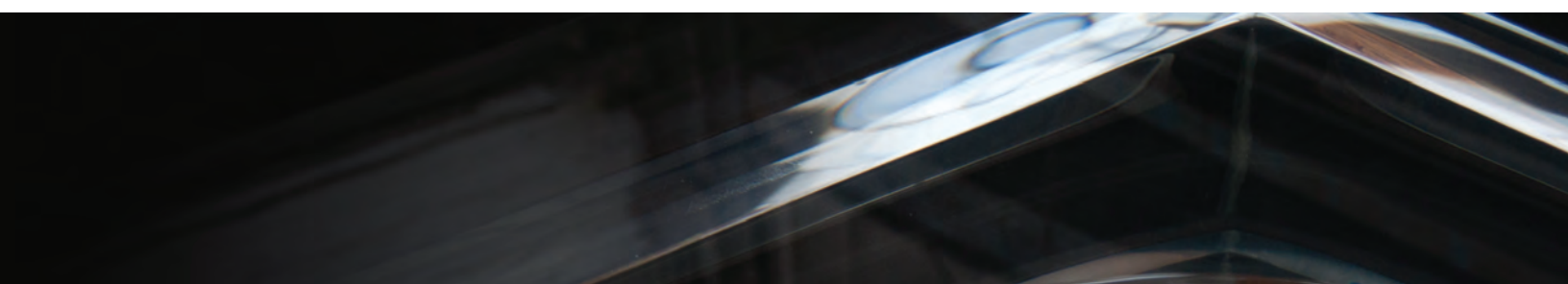


10-Year Fall Protection Warranty.



Size Code	Rough Opening	Finished Opening	Max. Outside Dimension	Fits on Center Spacing
2X2 SSF	22 1/2" x 22 1/2"	21 1/2" x 21 1/2"	N/A	24"
2X4 SSF	22 1/2" x 46 1/2"	21 1/2" x 45 1/2"	N/A	24"
3X3 SSF	30 1/2" x 30 1/2"	29 1/2" x 29 1/2"	N/A	16"

U-Factor Value: 0.35; **SHGC Value:** 0.50.



Let us help you find the perfect skylight. Whether you are looking for more information, or if you'd just like to let us know how we're doing, we are always available. For purchasing or distribution questions, please contact us by phone at **800.268.4068** or email **vtechsales@dayliter.com**.



Call **800.268.4068** for pricing.

5492 275th Street
Langley, BC V4W 3X7
604-856-4530 phone
www.dayliter.com

VTECH Industries, L.P.
Manufacturing Headquarters
866.491.0843 toll free
www.VTECHskylights.com

