



A product for the Resolution of Leaks in Existing Skylights

A skylight in a room provides a unique and functional architectural element. Not only does it make a room seem brighter and bigger, it lets in light where traditional windows cannot or will not work. When a person enters a room with a skylight for the first time, they cannot help but to be drawn to look out the skylight, even though nothing but the sky can be seen.

For various reasons just about all skylights will suffer from leaks at one time during their life often resulting in costly interior and structural damage. Some skylight manufacturers are now providing a 10 year warranty against leakage, which is just short of the period of time when most skylights begin to fail.

Accordingly, there exists a need for a means by which leaks from any and all areas of skylights can be stopped on either a temporary or permanent basis.

The Skylight Stop Leak fulfills this need.

Skylight Stop Leak Product

A transparent shroud that completely encloses an existing skylight, thereby protecting it from harmful environmental conditions such as snow, water, and ice, as well as providing physical protection against hail, falling ice, snow, and branches.

It deflects water away and thereby prevents water from entering skylights that have been poorly installed or manufactured, have compromised or deteriorated flashings, caulking, gaskets or sealants. It also minimizes heat loss and condensation on the inside of the skylight which is frequently mistaken for leaking.

Physical Attributes

The product is very simple and installation lends itself to the Do-it-Yourself (DIY) market. It is light and easy to handle. Typical installation is less than 30 minutes requiring only very common tools.

When installed the product has a pleasing exterior appearance that is much like that of a normal skylight.

From the inside of the structure looking out through the existing skylight, there is little or no evidence of the new Skylight Stop Leak installation and the appearance from the inside is preserved.

Status

US Utility Patent Issued No. 11,746,528 / Canada Patent Pending.

Product Description

The product consists of a shroud constructed in such a manner as to completely cover the existing skylight. The product provides for physical separation from the skylight on all surfaces thereby preventing snow, water and ice from coming in contact with the skylight thereby reducing heat loss. It also incorporates flashings on the edge that contact the roof such that water is deflected away from the skylight preventing water infiltration. The top surface is constructed of a smooth transparent material such as glass or plastic that allows the entrance of light while providing a thermal air space above the skylight upper surface. It further protects the skylight from damage from fallen snow, ice, hail, branches and other such hazards.

Secondary Application

Metal replacement roofs are gaining in popularity. In the case where the roof has skylights, in many instances the buildup of the new roof leaves the skylight too low to apply flashings and necessitates modification or in most cases skylight replacement. The product can be placed on the surface of the new roof over the existing skylight thereby speeding the roof installation process and reducing the cost to the consumer by eliminating the need for skylight replacement.

Product Construction

Construction could be of blow molded, injection molded or vacuum formed plastic.

Constructing the product in 3 parts that could be nested and could be easily assembled on site has the advantage of allowing for small packaging thereby facilitating economical shipping for on-line sales and a small footprint in the retail environment. To accommodate larger skylights, an additional centre section could be provided thereby allowing the same product parts for multiple size applications.

Other Application Accommodation

Although the application and configuration discussed above applies to skylights commonly found on domestic residential structures, the concept also applies to virtually all styles of skylights including but not limited to ventilating, fixed and tubular, with a wide variety of shapes including but not limited to flat, arched, domed, and pyramid. Likewise, the roof surface used with the cover may also include, but not be limited to asphalt shingles, metal roofing, slate shingles, rubber membrane, solar roofs, wood shakes, built-up roofs, and the like. Accordingly, its use with any particular style of skylight or roof surface is not a limiting factor of either the product or the patent.

Product Take-up and Value

Every opportunity has been taken to ask those who have residential skylights that leak if they would spend \$200, \$300 or \$400 on a DIY solution that would resolve the issue. Out of 93 people surveyed over a 6 year period, 100% would spend up to \$300 and that drops to 78% at \$400. That result established a ballpark maximum value for the product as well as a possible take-up.

Potential Market

Approximately 32% of skylight sales are for replacement of existing skylights. The primary reason for replacement is failure (approximately 85%) and secondly physical damage. Failure most often results in leakage, thermal loss, condensation on the inside and eventual structural damage.

A smaller portion of the market but growing is the potential use of the product for steel roof retrofits to eliminate the need for skylight replacement.

Prototype Installations

Three prototypes (constructed of metal and glass) were installed in Ottawa Canada in 2016 on skylights that had a history of chronic leaking from ice damming and seal deterioration. All three prototypes have been successful in entirely mitigating the leaking issues.



Prototype Installation

Preferred Final Design Concept

Although the prototypes were constructed of metal and tempered glass to prove the concept, the preferred final product would be constructed of molded plastic as shown above in at least 3 sections to accommodate ease of and economical shipping as well as minimizing the requirement for retail floor space.

Opportunity

The Skylight Stop Leak is currently available for patent licensing or patent purchase. Proposals from interested parties are welcome. Creativity in operational relationship to the benefit of all parties is encouraged.

Contact Information

Ross J Owens 613-835-3192 rossjowens@gmail.com www.skylightstopleak.com