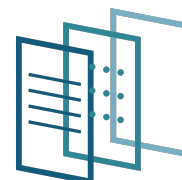




Modernité
By CarbonFutureX® Group



PHOTOVOLTAIC VACUUM GLAZING

Solar Skylight

Power above.
Comfort below.

Daylight and electricity generation, with solar control
and vacuum insulation built into the glass.



A better room beneath the roof

Overhead glazing shapes how a room feels. Solar Skylight brings power generation and thermal performance into the same architectural surface.



SUMMER SOLAR CONTROL

The photovoltaic layer limits direct solar transmission, helping reduce unwanted heat entering the room.



WINTER INSULATION

Vacuum insulation slows heat transfer through the glazing, helping retain warmth in colder weather.

01

Generate

Thin-film photovoltaic glass converts part of the incident solar energy into electricity.

02

Insulate

A 0.2 mm vacuum cavity supports a highly insulating glazing construction.

03

Protect

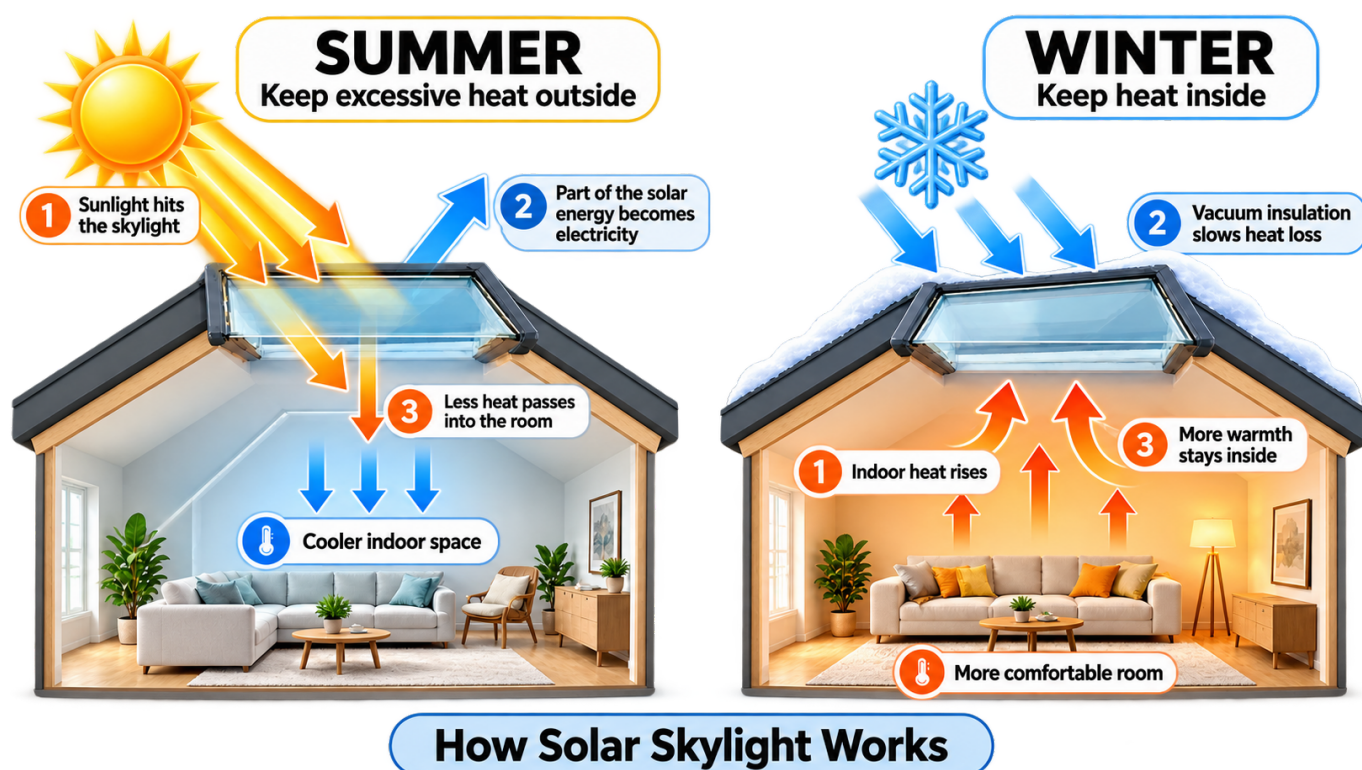
Toughened and laminated glass forms the safety build-up for overhead use.

Transparency can be configured to balance daylight with solar control for the project.



Comfort through the seasons

Solar control and insulation address different heat flows. Their combined role matters in roof spaces exposed to strong sun and cold outdoor conditions.



IN SUMMER

Lower solar heat gain

The PV layer generates electricity while reducing solar energy transmitted through the glass. This helps manage overheating risk in the space below.

IN WINTER

Lower heat loss

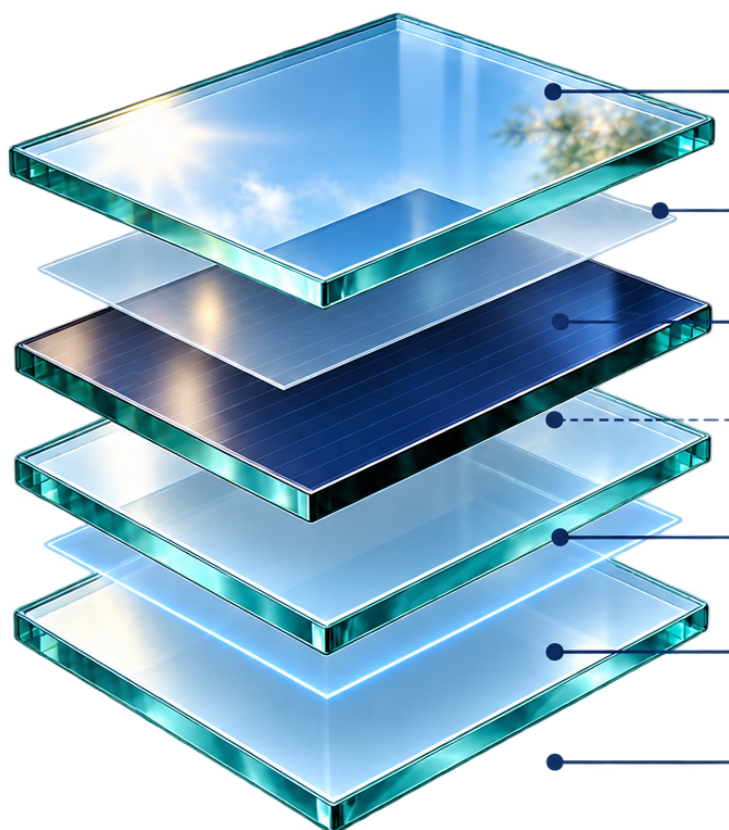
The vacuum cavity reduces heat transfer through the glazing, supporting the thermal performance of the roof envelope.

Illustrative operating principle. Indoor temperature depends on the complete building design, weather, shading, ventilation and occupancy.



Seven layers. One integrated unit.

Photovoltaic glass, laminated safety construction and a vacuum cavity combine in the published Solar Skylight build-up.



OUTSIDE TO INSIDE

- | | | |
|----|----------------|-------------------------|
| 01 | 4 mm | Toughened glass |
| 02 | 1.52 mm | PVB interlayer |
| 03 | 3.2 mm | CdTe photovoltaic glass |
| 04 | 1.52 mm | PVB interlayer |
| 05 | 4 mm | Low-E toughened glass |
| 06 | 0.2 mm | Vacuum cavity |
| 07 | 4 mm | Toughened glass |

SAFETY FOR OVERHEAD GLAZING

The published construction uses toughened glass with PVB lamination. Final glass selection, support details and structural verification should match the roof design and project requirements.

Layer illustration is schematic and not to scale. Final glazing specification may be adjusted to suit the project.



Performance at a glance

SOLAR GENERATION

Up to

100 W/m^2

VACUUM INSULATION

U-value from

0.4 $\text{W/m}^2\text{K}$

Photovoltaic technology	Integrated thin-film CdTe glass
Solar output	Up to 100 W/m²
U-value	From 0.4 W/m²K
Vacuum cavity	0.2 mm
Solar control	Reduced solar heat gain
Transparency	Configurable
Safety construction	Toughened and laminated glass
Glazing build-up	See layer schedule on page 4
Project specification	Adaptable to project requirements

Specification notes

Values apply to the selected glazing specification and should be confirmed for each project. Whole-skylight performance also depends on the frame, unit dimensions and installation details.

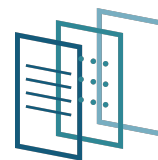
Output and performance depend on configuration and operating conditions. The headline power density is not an annual energy yield.

BRITISH LOFT LIVING

Solar Skylight for daylight, comfort and energy from above

Modern roof glazing for UK homes

Modernité
By CarbonFutureX® Group



YOUR PROJECT

Solar Skylight, tailored to your space

Share your roof drawings, dimensions and location. Tell us your daylight, comfort and power-generation priorities.

ACCREDITATION



Applicable certification and supporting documents are confirmed with the project specification.

START A CONVERSATION

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