



Kingspan Fixed Ecolux Data Sheet

Fixed skylight for flat roofs



Daylighting Solutions
Natural Ventilation Solutions
Smoke Management Solutions
Service & Maintenance
Building Automation



Kingspan Fixed Ecolux

Description

The Fixed Ecolux rooflight unit is fitted on waterproofed roofs. This rooflight optimises the contribution of free natural daylight. Fixed Ecolux comprises a metal support kerb and a multi-wall polycarbonate lid. There is a wide choice of dimensions. Please contact us for more information.



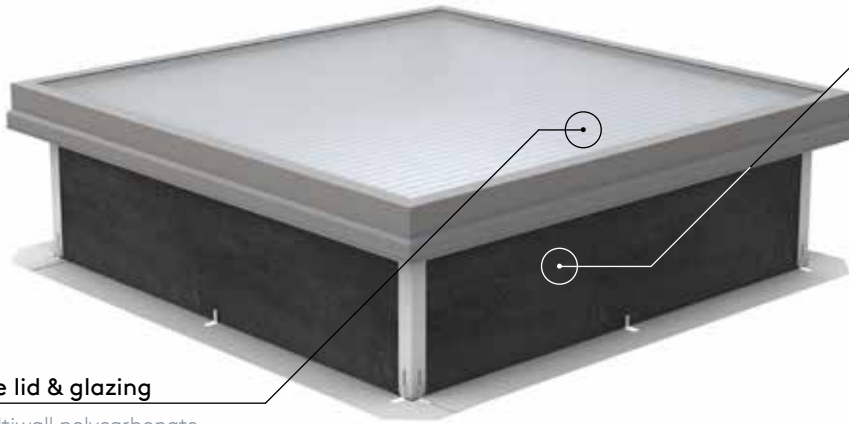
Standard description

Natural lighting will be provided by Fixed Ecolux skylights (waterproofed flat roof) from Kingspan Light + Air: insulated 350 mm kerb and 10 or 16 mm thick multi-wall polycarbonate lid.

Advantages

- Fixed Ecolux is the ideal solution for maximising natural daylight and improving occupant comfort.
- Fixed Ecolux is designed to "Make savings in electrical power use by improving natural lighting in buildings" as described in the RT 2012 regulations: Reduction of the building's overall energy use.
- An essential solution in Industrial and Commercial Public Buildings (EPIC) : "Buildings shall be designed and disposed in order that natural daylight may be used to light areas designated as workplaces, except where the technical nature of the activities in question is not compatible with such light. " (Labour code art. R 4213-2).
- "The lighting obligation is no longer limited to enclosed spaces designated as workplaces...and lighting conditions are not only a matter of workplace safety and circulation, but also visual comfort." (circular of 11.04.1984).
- Fixed Ecolux offers better "energy management" and provides better "visual comfort" in buildings. These are two vital components of the High Environmental Quality (HEQ) approach (Low energy building objectives, HQE® approach).
- The ISO+ solution optimises rooflight insulation: 25% better than a standard fixture.
- Fixed Ecolux allows natural light into your building, via several small light openings that are ingeniously located in the roof.

Description



The lid & glazing

Multiwall polycarbonate (MWPC) opalescent lid 10 mm thick (standard version) or 16mm thick (ISO+ version). The glazing is integrated into an aluminium F frame. Fire rating: B-s1.d0 (M1) Option for different types of glazing.

The kerb or upstand

The straight kerb is made from galvanised sheet steel. Its standard height is 350 mm. Contact us for other heights. Thermal insulation is provided by a 15 mm thick rock-wool insulation with bitumen external surface finish (30 mm in ISO+ version).

iSO+ range

The ISO+ reinforced insulation range limits heat loss: 25% gain compared to a standard fixture.



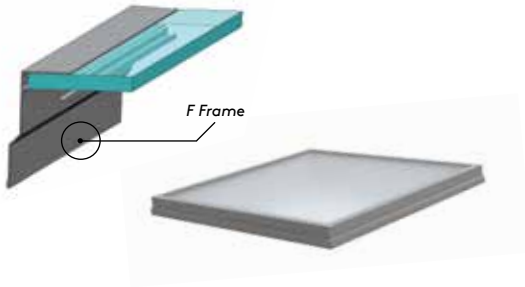
Lid and glazing

1. Multiwall Polycarbonate glazing

Our multiwall polycarbonate proposals.
Several versions available:

Version of polycarbonate	Thickness	Number of walls
Opalescent	10 mm	4
	16 mm	5
	16 mm	7
	32 mm	5
Translucent	10 mm	4
	16 mm	5
	16 mm	7
	32 mm	5
Heat reduction	10 mm	4
	16 mm	5
	16 mm	7
	32 mm	5
Grey opaque	10 mm	4
	16 mm	7

Other characteristics on request.



2. Polyester lid

Completely opaque lid with black interior to avoid any light reflection. It is suitable for use on sites where overhead lighting is to be avoided: cellar, chemical sites, cinemas, etc. Also for sites exposed to aggressive chemical products.

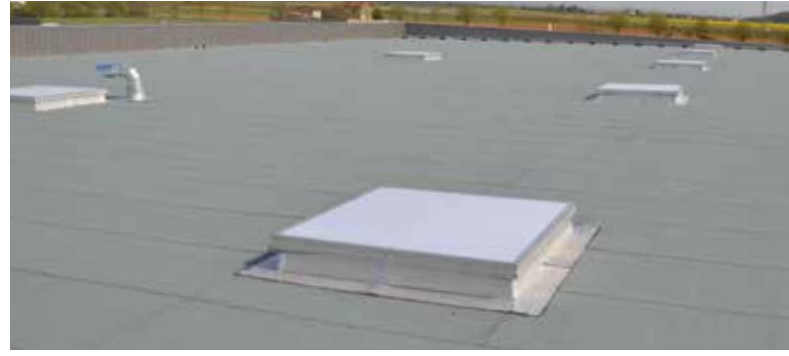
- Thickness: 25 mm.
- Light transmission: 0%.
- Thermal transmittance coefficient: $U = 0.8 \text{ W/2.K}$.



3. Aluminium lid

This lid has the best fire rating.

- Thickness: 50 mm.
- Light transmission: 0%.
- Thermal transmittance coefficient: $U = 0.8 \text{ W/m}^2.\text{K}$.
- Fire rating: A2 – s1, d0 (M0). Not combustible.



4. Sound-proofing

Insulated aluminium lid 50 mm thick. According to CSTB tests, 29dB R_w sound attenuation.

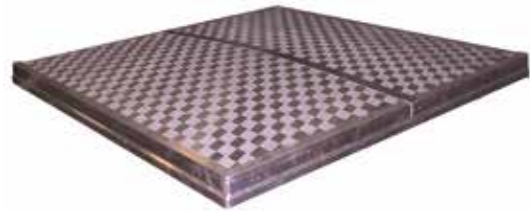
5. PMMA dome

Polymethylmethacrylate dome.
– Single or double wall.
– Fire rating: E (M4).



6. Solar protection

Ecosun Shade provides a sustainable and economical solution to the problem of overheating in buildings. It is a high performance aluminium system, combined with the multi-wall polycarbonate glazing in our rooflights. CSTB tests show that the energy transmission factor is only 15%. (see datasheet).



7. Detachable external sun screens

Made to measure tarpaulin, PVC coated for better ageing, with strengthened edges and eyelets. These screens are delivered ready to be installed, and are secured using a bungee cord threaded through the eyelets.





Circular Fixed Ecolux Version



Description

Circular Fixed Ecolux rooflight unit is fitted on waterproofed roofs. This rooflight optimises the contribution of free natural daylight. Circular Fixed Ecolux comprises a circular steel support kerb and a circular polymethylmethacrylate dome (PMMA).

Standard description

Natural lighting is provided by Circular Fixed Ecolux skylights from Kingspan Light + Air: galvanised steel kerb 350 mm high with 15 mm thick rock-wool insulation with bitumen external surface finish. Double wall PMMA with fallen edges, M4 fire rating.

Advantages

- Circular Fixed Ecolux is the ideal solution for maximising natural daylight and improving occupant comfort.
- The circular shape of the Circular Fixed Ecolux is an aesthetically attractive solution for bringing natural light into your premises.
- Circular Fixed Ecolux is designed to "Make savings in electrical power use by improving natural lighting in buildings" as described in the RT 2012 regulations: Reduction of the building's overall energy use.
- An essential solution in Industrial and Commercial Public Buildings (EPIC) : "Buildings shall be designed and disposed in order that natural daylight may be used to light areas designated as workplaces, except where the technical nature of the activities in question is not compatible with such light." (Labour Code art. R 4213-2)
- "The lighting obligation is no longer limited to enclosed spaces designated as workplaces...and lighting conditions are not only a matter of workplace safety and circulation, but also visual comfort." (circular of 11.04.1984).
- Circular Fixed Ecolux offers better "energy management" and provides better "visual comfort" in buildings. These are two vital components of the High Environmental Quality (HEQ) approach (Low energy building objectives, HQE® approach).



- The ISO+ solution optimises rooflight insulation: 25% better than a standard fixture.
- Circular Fixed Ecolux allows natural light into your building, via several small light openings that are ingeniously located in the roof.

Dimensions

Circular Fixed Ecolux dimensions -
Diameter (in cm)

70	80	100	120	130	140	150	160	180	200
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For any other requirements, please contact us.

Covers

1. PMMA

Polymethylmethacrylate dome.

Single or double wall.

Transparent or Opalescent.

Fire rating: E (M4).

Several versions available:

- PMMA - single wall - transparent,
- PMMA - single wall - opal,
- PMMA - double wall - transparent,
- PMMA - double wall - opal.

Other characteristics on request.

2. PC-B

Single or double wall dome.

Transparent or Opalescent.

Fire rating: Bs-1 (M1).

Several versions available:

- PC-B - single wall - transparent,
- PC-B - single wall - opal,
- PC-B - double wall - transparent,
- PC-B - double wall - opal.

Other characteristics on request.



Integrated natural ventilation (option)

Circular Fixed Ecolux provides natural ventilation of the premises, to improve control of energy expenditure for the building.

Available with manual or electric operation.



Options

1. 1200 Joule Anti-Burglary Grid

The Kingspan Light + Air anti-burglary Grid complies with CRAM recommendations for protection of personnel working on roofs, and is in conformity with the French Labour Code. It passed the standardised test for resistance to a person tripping and falling over: dynamic 1200 Joule test.



2. Roof Access

The mechanism is offset to facilitate access to the roof. (See the Ecolux AT Roof Access datasheet.)



3. Kerb equipped for PVC waterproofing

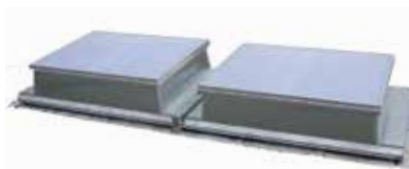
Fixed Ecolux is also suitable for PVC membranes: without modifying the kerb, we offer uncoated insulation and a fastening kit.

4. Coating

For Fixed Ecolux: we can varnish the kerb interior and bars. All RAL colours available on request.

5. Multiple kerbs

To cover large dimensions or achieve a specific effect, Kingspan Light + Air makes multiple kerbs receiving several covers. Depending on the dimensions, they are assembled in the factory or on the worksite. The modules are joined together by a galvanised steel waterproof gutter. On the same multiple kerb, the units can be fixed or opening, separately from each other. (For Fixed Ecolux only)



6. Ventilation

Ventilation Ecolux provides natural ventilation of the premises, to improve control of energy expenditure for the building. Available with manual, electric or pneumatic operation. (Only for square or rectangular Ecolux)

7. Reinforced thermal insulation

The Kingspan Light + Air insulation solution delivers a 25% gain compared to a standard fixture (Ecolux). The ISO+ range significantly improves thermal insulation and waterproofing.

The ISO+ solution for Fixed Ecolux comprises a 16 or 32 mm MWPC cover and a watertight seal between the cover and the frame. The thickness of the kerb/upstand insulation is doubled (standard - 15 mm, ISO+ - 30 mm).

ISO+ range

8. Covering kerb

To fit onto an existing concrete, wood or steel kerb, Kingspan Light + Air can manufacture a kerb fitted with a covering heel to allow fastening and guarantee waterproofing. This kerb is very useful for renovation. It is tailor made and can be insulated on request.



Certifications



INTERNATIONAL

Kingspan Light + Air

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For the product offering in other markets please contact your local sales representative or visit www.kingspanlightandairinternational.com

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