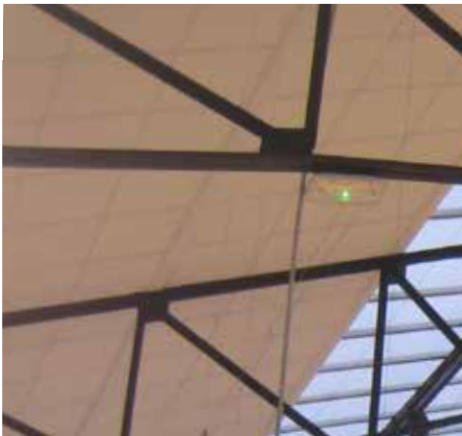




Kingspan Ecoplan Data Sheet

Ecoplan Rooflight: Aluminium Glazing System
Mono-pitch | Dual-pitch | cladding | northlight



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



**Mono or dual pitch
natural daylight**

Ecoplan mono-pitch
Ideal for northlight roofing
structures that avoid direct
exposure to sunlight.
Cultural sales outlet /
Hypermarket / Penitentiary
centre / Industrial site

Ecoplan dual-pitch
Ideal for low angle pitches
Gymnasium / Logistics centre /
Supermarket / Industrial site

Ecoplan façade
Ideal for vertical walls





Ecoplan Rooflight

Description

The Ecoplan system is a single or double pitch self-supporting aluminium rooflight system. A number of polycarbonate glazing options are available delivering maximum flexibility to meet a variety of project requirements. Ecoplan's flexible modular design adapts well to all architectural concepts to enhance the building envelope roof or facade. The Ecoplan rooflight rooflight is compliant to the European standard EN-14963.

iSO+ range

The ISO+ offer includes reinforced insulation to limit further heat losses: 20% gain compared to a standard fixture, $U_{rc} = 2.0 \text{ W/m}^2 \cdot \text{K}$



Completely modular solution



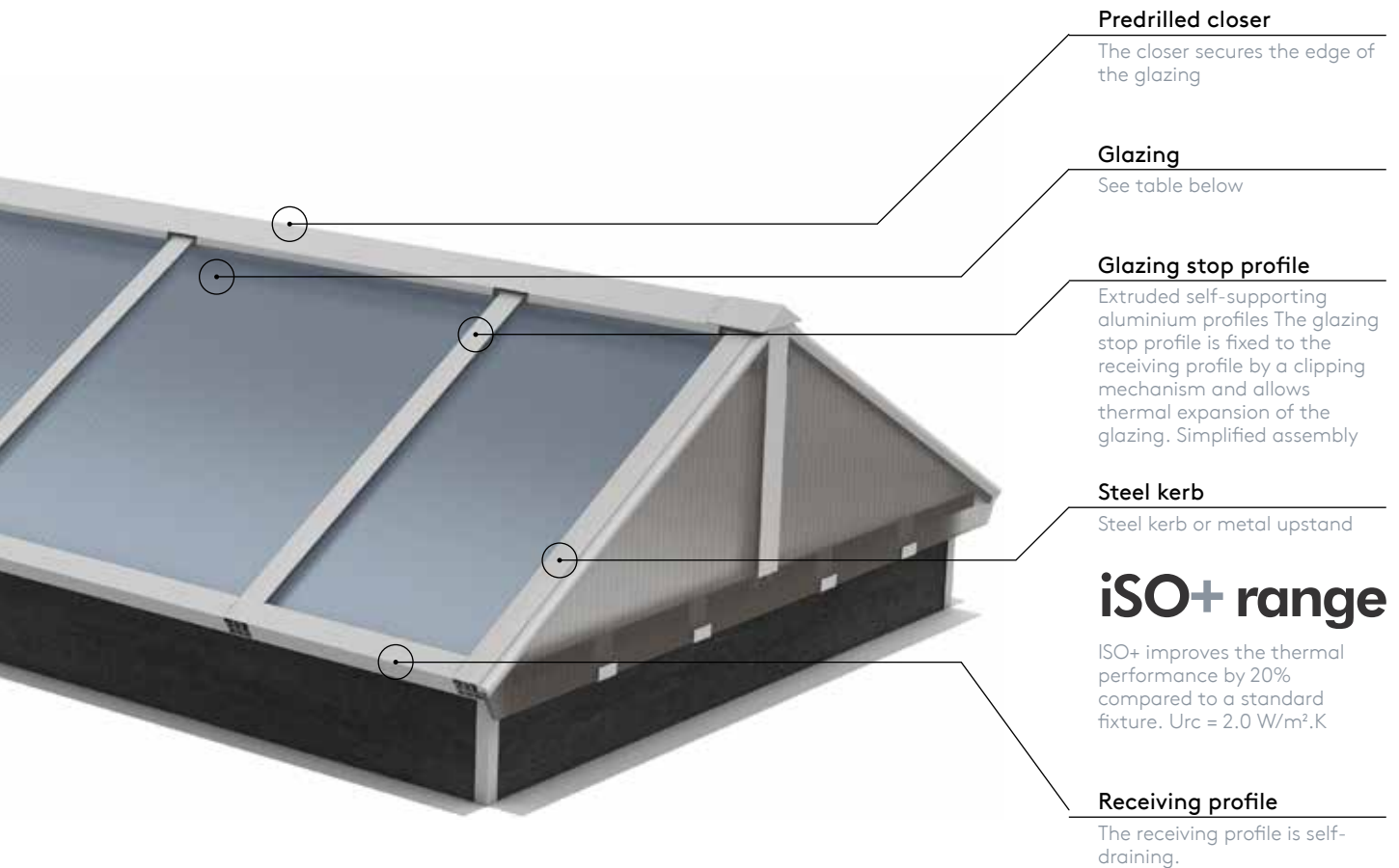
Standard description

Natural lighting of the building will be provided by the Ecoplan system, comprising a self-supporting aluminium profiles and aluminium closers at the top and bottom. Thermal expansion of the 10 or 16 mm transparent or opalescent multi-wall polycarbonate glazing will be permitted by glazing stops clipped onto the self-draining carrier profiles.

Advantages

- Ecoplan is the ideal solution to reduce building energy consumption and boost occupant comfort.
- It meets the requirements of the 2012 Thermal Regulations (RT 2012), the French Labour Code and the High Environmental Quality approach (HQE). In addition, the rooflights and claddings used offer 1200 Joule resistance.
- Ecoplan is designed to "Make savings in electrical power use by improving natural lighting in buildings" as described in the RT 2012 regulations, Access to natural lighting /the "Bbio" coefficient enhances the bioclimatic design of the building.
- An essential solution in Industrial and Commercial Public Buildings (EPIC) : "As far as possible, work premises must provide sufficient natural lighting". (Labour Code art. R 4223-2).
"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).
- Ecoplan 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).

Description



Predrilled closer

The closer secures the edge of the glazing

Glazing

See table below

Glazing stop profile

Extruded self-supporting aluminium profiles. The glazing stop profile is fixed to the receiving profile by a clipping mechanism and allows thermal expansion of the glazing. Simplified assembly

Steel kerb

Steel kerb or metal upstand

iSO+ range

ISO+ improves the thermal performance by 20% compared to a standard fixture. $U_{rc} = 2.0 \text{ W/m}^2 \cdot \text{K}$

Receiving profile

The receiving profile is self-draining.

Glazing

Ecoplan rooflights use different types of glazing on the worksite, which are allowed to thermally expand in their frames. Different types of Multi-Wall Polycarbonate (MWPC) or polymethylmethacrylate (PMMA) sheets are used:

Type	Light transmission ⁽¹⁾ (in %)	Thermal transmittance coefficient U ⁽²⁾ (in W/m ² .K)	Solar factor ⁽³⁾ (in %)	Fire rating ⁽⁴⁾
MWPC - Opalescent - 10 mm - 4 walls	57	2.7	60	/
MWPC - Opalescent - 16 mm - 5 walls	46	2.1	47	
MWPC - Opalescent - 16 mm - 7 walls	54	2.0	55	
MWPC - Translucent - 10 mm - 4 walls	69	2.7	65	
MWPC - Translucent - 16 mm - 5 walls	66	2.1	63	
MWPC - Translucent - 16 mm - 7 walls	59	2.0	56	
MWPC - Heat reduction - 10 mm - 4 walls	50	2.8	48	
MWPC - Heat reduction - 16 mm - 5 walls	33	2.1	32	
MWPC - Heat reduction - 16 mm - 7 walls	54	2.0	48	
PMMA - single wall - Transparent	92	5.3	/	E (M4)
PMMA - single wall - Opal.	82	5.3	/	
PMMA - double wall - Transparent	85	2.8	/	
PMMA - double wall - Opal.	78	2.8	/	B (M2)
Compact MWPC - solid sheet	90	5.2	/	

⁽¹⁾ **Light transmission:** system Measures the transmission of rays of light within the sheet. These transparency characteristics are permanent.

⁽²⁾ **Thermal transmittance coefficient:** This is determined by the quantity of heat passing through a 1m² wall for a difference of 1°Kelvin between the interior and exterior. It determines the sheet's insulation capacity. The lower the value, the more insulating the sheet is.

⁽³⁾ **Solar factor** or "g" factor indicating total solar energy transmission: it indicates the quantity of solar energy found within the sheet.

⁽⁴⁾ **Fire rating:** Determines the fire resistance of the sheet. All our products are "non flammable".

For any other requirements, please contact us.

Options

1. Smoke ventilation / natural ventilation

Every structure incorporating the Ecoplan system allows for easy integration of opening systems (frames, lamellas, etc.) for smoke ventilation and natural ventilation of premises. (Contact us)

2. Solar protection

Ecosun Sunshade provides a sustainable and economical solution to the problem of overheating in buildings.

It is an innovative aluminium system, combined with the multi-wall polycarbonate glazing in our rooflights. CSTB tests show that the energy transmission factor is only 15%.

(See Ecosun Sunshade technical datasheet)

3. 1200 Joule system

Additional 1200 Joule resistance cable fall-arrest system for persons on the roof. (VERITAS certificate no. LYN11499068A ATT1)

4. 1200 Joule bars

Aluminium anti-burglary and fall-arrestor bars made from 15x15 mm square section tubes, with 155 mm spacing.

(VERITAS certificate no. LYN11498160A ATT1)

5. Varnishing

We can varnish or anodise all the aluminium parts. RAL colours on request.



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Kingspan Light + Air is the only company in France in its field that has all the recognised certifications and qualifications.

At Kingspan Light + Air we are specialists in daylighting. Our Sales teams and Research and Development department will provide you with tailored studies for your building.



Certifications



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