AKRIPOL **Polycarbonate**

arched continuous skylights

AKRIPOL
Plastoform Group

Natural Daylight

Natural Ventilation

Natural smoke and heat exhaust

Engineering

Protection

Mechanical Engineering Solutions

Safety

AKRIPOL POLYCARBONATE ARCHED CONTINUOUS SKYLIGHTS

Continuous skylights are the ideal lighting system to cover roof openings.

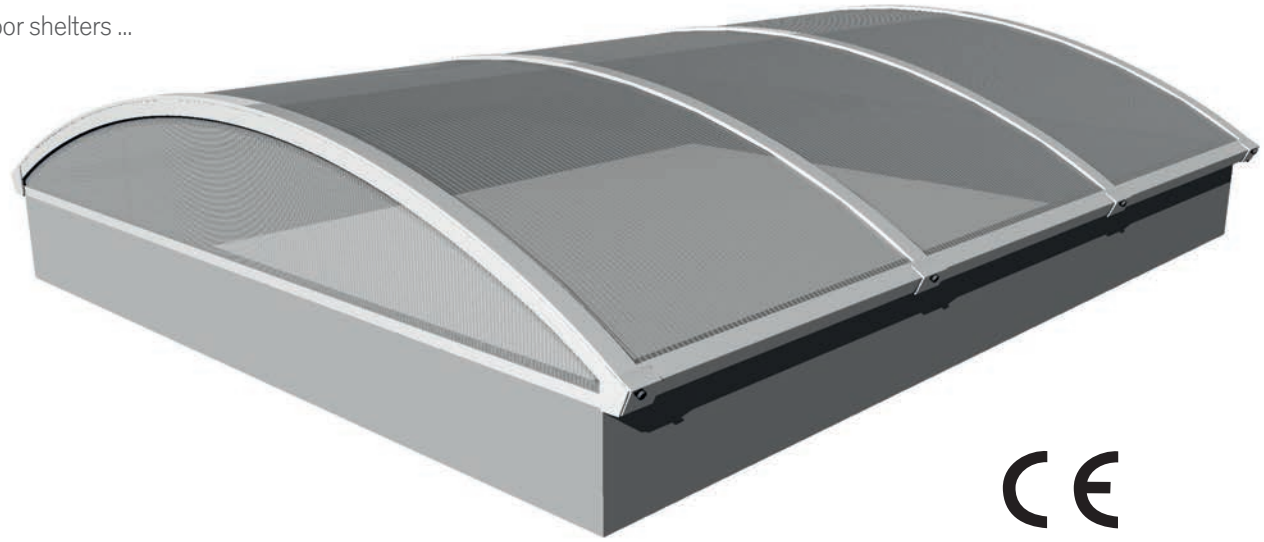
They can be incorporated in all kinds of living and industrial buildings, regardless the type of roofing. They are especially suitable for larger buildings, requiring the incorporation of wider light bands due to the large ground-floor surfaces (the width of the PC light bands can be even up to 6 m and more).

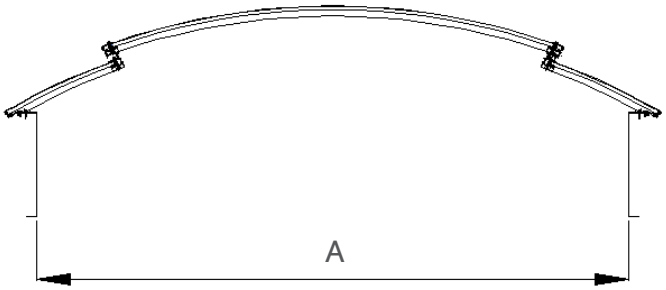
Akripol skylights consists essentially of a combination of freestanding aluminum extrusion profiles and plastic light modules. The Polycarbonate multiwall plates allow a high light transmission, which not only ensures a pleasant room climate, but also a reduction in lighting costs.

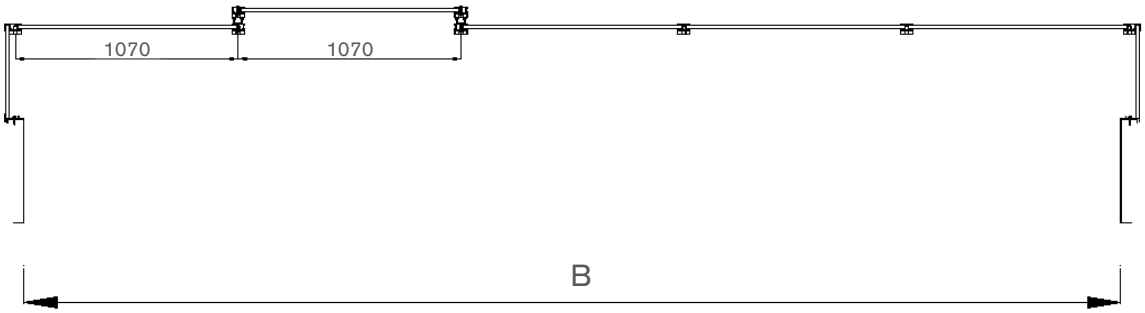
Like the acrylic light bands the PC light bands can be fixed, or they may have the possibility of air ventilation and of the natural smoke and heat exhausting in the case of fire.

Applications

- Rooflights at sports or industrial halls
- Canopies
- Light trails in canopies
- Connections between halls
- Outdoor shelters ...







ALUX PC SKY - CONTINIOUS ARCHED SKYLIGHT

Construction ALUX PC SKY – arched rooflight for flat and saddle roofs.

Product specification

- Width (A): **from 1000 up to 6160 mm**
- Length (B): **infinite**
- Raster (L): **1070 mm** (standard)

- Construction: **Aluminium** (mill finished, RAL powder coating possible)

- Glazing: **Multiwall structured or single wall polycarbonate sheets with UV protection, thickness from 6 to 42 mm** (standard 10 / 16 / 30 / 36 mm), possibility to use sandwich glazing in different combinations of polycarbonate sheets according to project needs. **Colored glazing in opal or clear color, antireflexive layers as option.**

- Upstand:
  Steel, wooden or concrete frame, at least 150 mm over the hydro insulation of the roof.

- Ventilation:
  with integrated ventilation flap ALUX PC SKY KL

- Smoke and heat exhaust:
  with integrated NSHEV device ALUX PC SKY RWA

- Weight:
  approx. 3,8 – 5,8 kg/m² (standard glazings)

Parameters according to EN 14 963:2006

U-Value Ug: **0,89 - 2,5 W/m²K** (according to glazing)

Snowload DL: **500 up to 7400 N/m²**

Windload UL: **750 up to 2000 N/m²**

Fire reaction: **aluminium A1, polycarbonate B-s1, d0**

Waterproofness: **passed**

Sound insulation: **up to 27 dB**

Light transmission: **standard 73 - 20 %**

Impact test (big, hard object): **passed**

Impact test (small, soft object): **up to SB 1200 J**

ALUX PC SKY THERMO – CONTINUOUS ARCHED SKYLIGHT

Construction ALUX PC SKY THERMO – arched continuous rooflight for flat and saddle roofs equipped with profiles with thermal breaks.

Product specification

- Width (A): **from 1500 up to 6160 mm**
- Length (B): **infinite**
- Raster (L): **1070 mm** (standard)

- Construction: **Aluminium profiles with tricameral thermal breaks** in the connection to the upstand or in the detail of connection to the roof of the object. **Aluminium** (mill finished, RAL powder coating possible).

- Glazing: **Multiwall structured or single wall polycarbonate sheets with UV protection, thickness from 16 to 36 mm** (standard 16 / 30 / 36 mm), possibility to use sandwich glazing in different combinations of polycarbonate sheets according to project needs. **Colored glazing in opal or clear color, antireflexive layers as option.**

- Upstand:
  Steel, wooden or concrete frame, at least 150 mm over the hydro insulation of the roof.

- Ventilation:
  with integrated ventilation flap ALUX PC SKY KL THERMO

- Smoke and heat exhaust:
  with integrated NSHEV device ALUX PC SKY RWA THERMO

- Weight:
  approx. 5 – 7,5 kg/m² (standard glazings)

Parameters according to EN 14 963:2006

U-value Uw: **1,00 – 1,4 W/m²K** (according to window, including frames)

Snowload DL: **500 up to 7400 N/m²**

Windload UL: **750 up to 2000 N/m²**

Fire reaction: **aluminium A1, polycarbonate B-s1, d0**

Waterproofness: **passed**

Sound insulation: **up to 22 dB**

Light transmission: **standard 65 - 20 %**

Impact test – (big, hard object): **passed**

Impact test – (small, soft object): **up to SB 1200 J**

ALUX PC SKY KL – VENTILATION FLAP

Ventilation flap for daily ventilation – integration into the ALUX PC SKY and ALUX PC SKY THERMO systems

Product specification

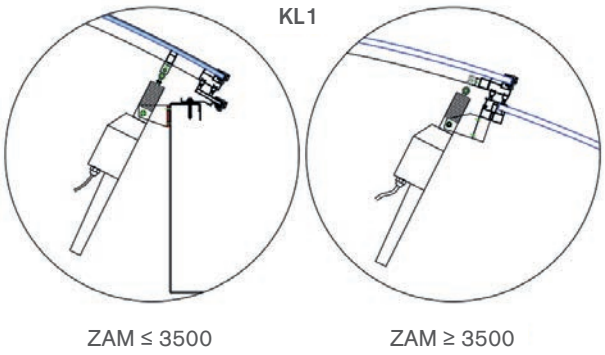
- Width (A): **max. 3500 mm**
- Length (B):
  - **1010 mm** (one field)
  - **2080 mm** (two fields)
  - **with standard raster width of 1070 mm**

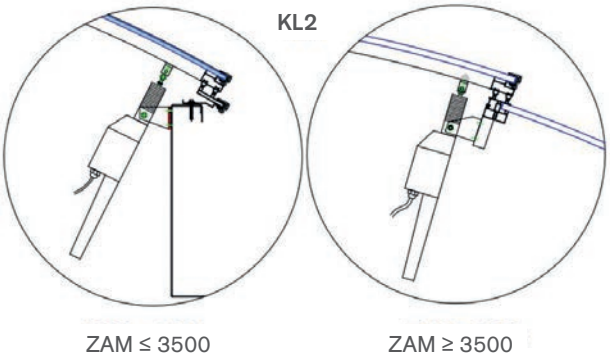
- Construction:
  Aluminium (mill finished, RAL powder coating possible)

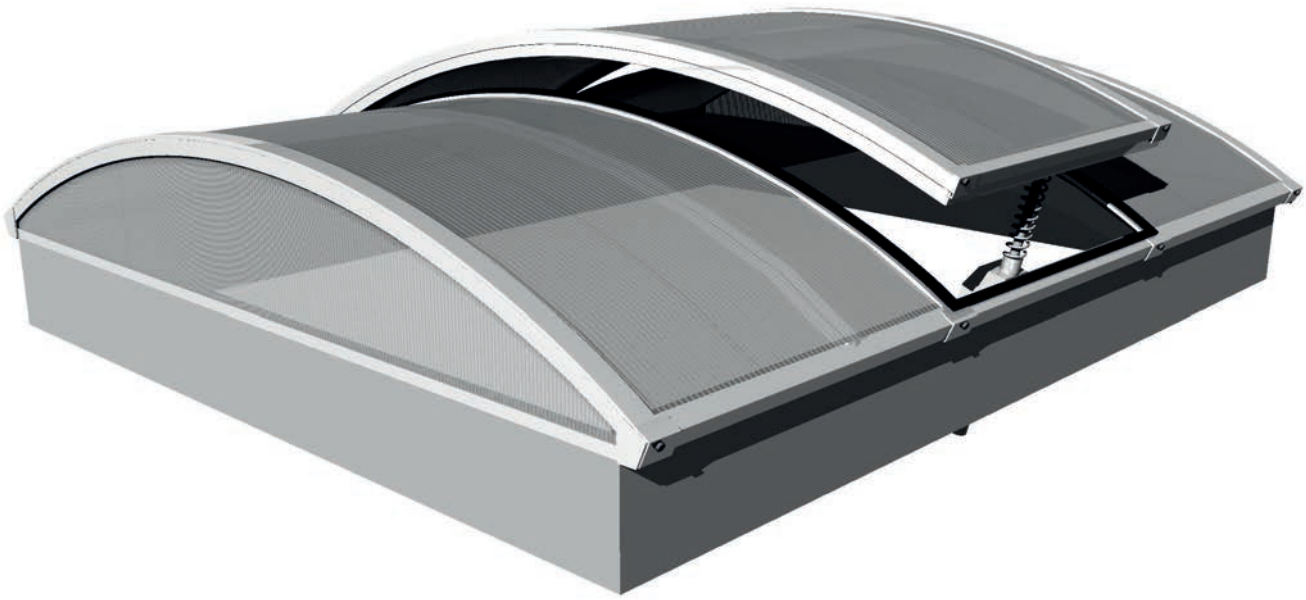
- Weight: **ca. 4 – 7 kg/m²** (standard glazing)

- Possible accessories:
  - **Electric engine** 230 V / 24 V - uplift 300 / 500 / 750 mm
  - **Pneumatic engine - uplift** 300 / 500 / 750 mm

Engines are delivered with complete accessories (engine console, fixing on the flap - back, connecting material etc.).







ALUX PC SKY RWA – NSHEV 165°

Smoke and heat exhaust flaps for arched continuous skylights ALUX PC SKY and ALUX PC SKY THERMO

Product specification

- Width (A): **from 1.200 up to 2.500 mm**
- Length (B): **1.010 mm** (one field) **or 2.080 mm** (two fields)

- Construction: **One winged ALUX PC SKY RWA 1 – 1,2 frame construction buildt from strong aluminium profiles, equipped with an opening mechanism for fast opening of the flap in case of fire. Aluminium** (mill finished, RAL powder coating according to project specification possible)

Usage

The flaps are used for smoke and heat exhaust purposes in case of fire. Can be fully and easyli integrated into our countinous skylights systems ALUX PC SKY and ALUX PC SKY THERMO or even be used as completely standalone devices. If additionaly equiped with pneumatic or electric engines for daily ventilation, our RWA flaps are fully certifed for daily ventilation purposes and NSHEV function in one device.

Engine: **pneumatic** (CO_2) **or electric** (24V), opening angle 165°, all engines standard with remote open / close function.

Aerodynamic Properties: Effectivity of smoke and heat exhaustion is enhanced with the use of spoilers. A**ctive aerodynamic area ranging from 0,78 to 3,80 m²**.

Parameters according to EN 12101-2:2004

Snowload SL: **up to 1500**

Windload WL: **up to 2000**

Reaction time: **under 60 s**

Functional reliability: **Re 10000**

Heat resistance: **B300**

Low environmental temperature: **T(-15)**

Fire reaction:
aluminium A1, polycarbonate B-s1, d0, seals F

The aerodynamic properties of the product were tested at a specialized auditing agency IFI Aachen in Germany. The properties of the product are confirmed by EC-certificate of conformity according to EN 12101 – 2:2004.

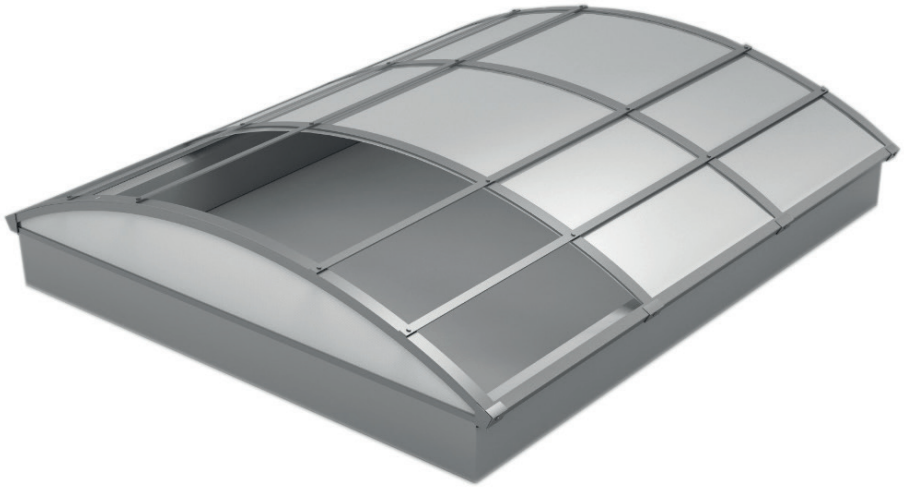
NSHEV opening flaps (standard dimensions)			
lenght	width	Aa aerodinamic value [m²]	SL snow load [N/m²]
1010	1800	1,36	1500
1010	2000	1,52	1500
1010	2300	1,74	1500
2080	1800	2,73	1500
2080	2000	3,04	1250
2080	2300	3,49	1000

ADDITIONAL POSSIBILITIES

FP 1200:

Fall-through Protection for all ALUX PC SKY continuous skylights.

- **Efficient and economic solution** of the „Fall-through Protection“
- **Permanent Fall-through safety** tested with 1200 J
- **Easy installation** – perfect also for retrofitting on all of our skylights
- **Very small impact on the light-transmission value**
- **Little weight and easy transport**
- **Optional powder-coating** (RAL-colours)
- **Tested and certified according to EN 14963:2006**



HP-HAIL PROTECTION

Hail protection and sun shading system for continuous rooflights

Tested and certified by the Swiss VKF institute for the hail protection class HW5.
Resistance against hail with diameter up to 50 mm.

Construction:

- **Aluminium sheets**, standard 2 mm, LT 35%
- **Aluminium holders**, connecting material stainless steel A2

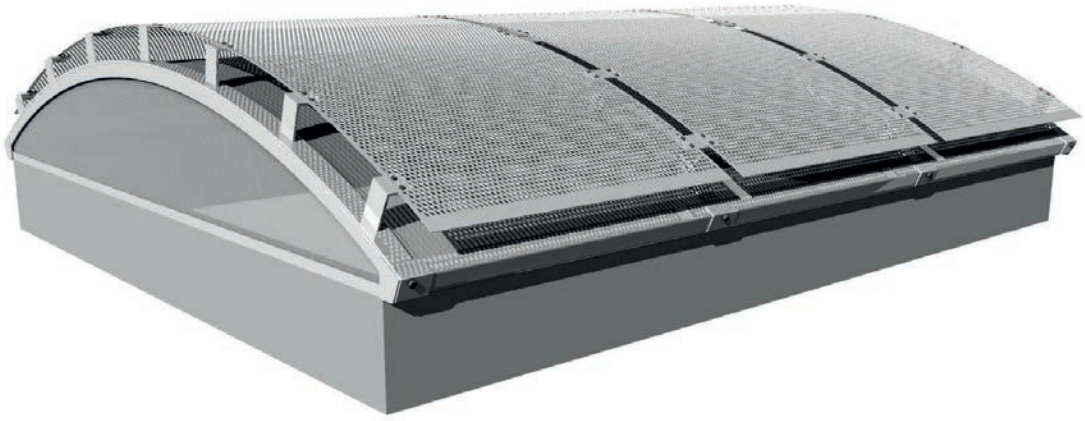
Variations:

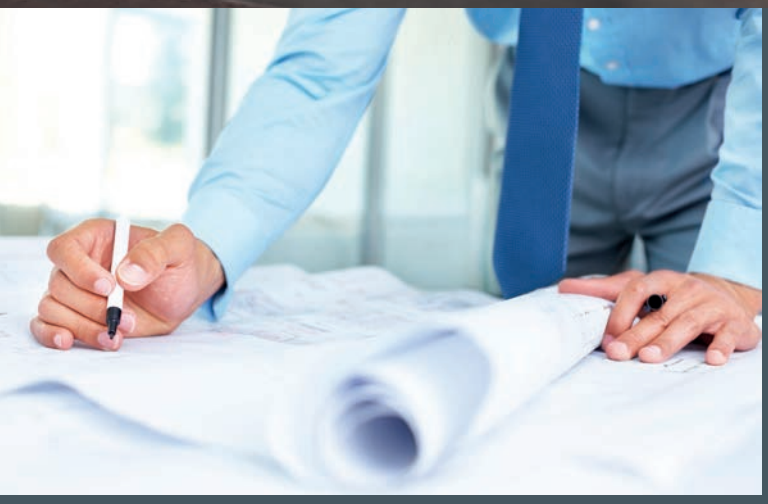
- **HP-F** (F for fix) with holders welded on the top profiles during the production of newly ordered skylight, for very fast and convinient installation on the roof
- **HP-N** (N for Nachrüstend) with holders which has to be fastened with screws to the on-site construction, which in turn enables this system to be retrofitted on existing skylights

Possible use with:

- Continuous rooflights ALUX PC SKY and ALUX PC SKY THERMO
- Ventilation flaps ALUX PC SKY KL and ALUX PC SKY KL THERMO
- Permanent fall-through protection ALUX PC SKY FP1200

Weight: **approx. 4 kg/m²**





Certificates:

- EN 14 963:2006

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