Light + Air UK & Ireland



# Daylighting Solutions Product Overview











# The Daylighting Solutions Range

This brochure contains information on our comprehensive range of products and the variety of accessories we offer. Our range of Skylight Domes, Rooflights and Pyramids, can be used for daylighting applications, daily ventilation and also, as openings for smoke and heat extraction (SHE) – with a wide range of drives available for this purpose.

# Modular Skylight Domes



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Classic Plus Skylight Dome

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Greenlite Flat Glass Skylight

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Pyramid Skylight Domes

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Skylight uPVC Base

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Weathering Frame

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Skylight Metal Base (Single-Skinned)

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Skylight Metal Base (Double-Skinned)





Repair and Renovation Set



# Roof Access Hatches

# Roof Access Hatches



# Specialist Roof Access Hatches

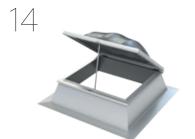


# Day-Lite Kapture

# Day-Lite Kapture



Day-Lite Kapture Air



Day-Lite Kapture Smoke Vent



# Energy 12

# Energy efficiency

A number of our Skylight Domes use enhanced thermal breaks and therefore can offer exceptional U-value, as well as excellent light transmission and energy efficiency.

# Certifications

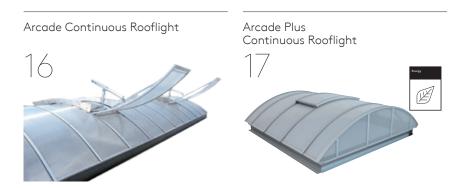
The glazing of our Skylight Domes are tested in accordance with EN 13501-1 and achieve a fire classification of b-s2, d0 or better.

# Opening Options:

Our Skylight Domes are manufactured as fixed, opening for natural ventilation and smoke and heat extraction units (SHE).

Note that SHE solutions must be correctly installed and commissioned, which can be arranged with Kingspan Light + Air or one of our local certified partners.

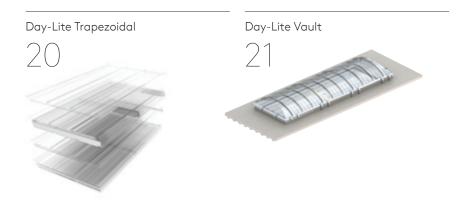
# Continuous Barrel Vault Rooflights



# Smoke Ventilation Units



# Polycarbonate Rooflights

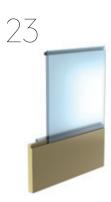


# Wall Light Systems

Day-Lite Klick



Day-Lite Architectural



# Aluminium Glazing Systems

Arcilite mono-pitch roof glazing

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Arcilite Dual-Pitch roof glazing

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BA-4 four-sided roof glazing

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# Accessories

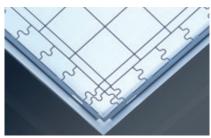
Polycarbonate Roof Glazing Ecoplan Continuous Rooflight

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Skylight Safety & Protection Systems

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Other specialist systems and accessories

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# Modular Skylight Domes

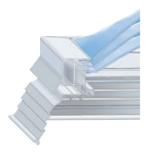
# Classic Skylight Dome

The Classic Skylight Dome is suitable for multiple applications and depending on thermal insulation and soundproofing requirements, can be supplied with a variety of glazing options in different sizes to conform to the requirements of the EN 1873 for Skylight Domes. There are a variety of glazing options available to meet specific project requirements. However, all our Skylight Domes are glazed with three skins of polycarbonate in an opal finish as standard. Transparent glazing is available as an option. The Weathering Frame can be supplied with all dome and base options to deliver greater weathering protection.

Shown here on a 500mm uPVC Skylight Base

### Features & Benefits

- Available as fixed, ventable and smoke & heat extraction (SHE) units
- High quality polycarbonate glazing, opal-coloured or in transparent upon request
- Stable border frame with moulded additional drip edge as protection against the elements in case of inclined assembly
- Non-fragility to ACR [M]001:2014 Class B, when installed as per Kingspan details



With optional Weathering Frame

Version	U <sub>g</sub> -value (W/m²K)*	Light Transmission (%)	U <sub>RC</sub>	g-value	Sound Reduction Index
Polycarbonate glazing, triple-skinned	2.2	43%	1.6	49%	22 dB**
Polycarbonate glazing, triple-skinned, impact-resistant	2.2	43%	1.6	49%	22 dB**

A variety of glazing options are available upon request , light transmission and g-value figures given here for Opal finish.

# Plus Skylight Dome

The Plus Skylight Dome is most suitable where there are enhanced aesthetic or insulation requirements. A thermally separated aluminium clamping design ensures the dome has enhanced weather sealing. All Plus Skylight Domes are supplied as a ready-to-install unit consisting of a Skylight Dome and Weathering Frame. The Weathering Frame – uPVC profile reinforced with aluminium – allows quick and easy assembly of the Dome, including on refurbishment projects and when retrofitting.

# Features & Benefits

- Frame design ensures better insulation and isothermal line
- Available as fixed, ventable and smoke & heat extraction (SHE) units
- Robustly engineered Skylight Dome due to the aluminium clamping frame design
- Improved wind resistance with multiple sealing points and system frame connections
- Easy installation due to the integrated Weathering Frame





With Weathering Frame

Version	U <sub>g</sub> -value (W/m²K)*	Light Transmission (%)	U <sub>RC</sub>	g-value	Sound Reduction Index
Polycarbonate glazing, triple-skinned	2.2	43%	1.5	49%	22 dB**

A variety of glazing options are available upon request , light transmission and g-value figures given here for Opal finish.

- \* Calculated for horizontal application
- \*\* Without certification in accordance with EN 1873

# Modular Skylight Domes

# Greenlite Flat Glass Skylight

This innovative flat glass skylight solution is available in a fixed or ventable version with an electric drive for daily aeration and ventilation or as a geometric smoke and heat extraction unit. These roof windows can be controlled remotely using Kingspan's control panel systems. These high performance insulated glass units deliver superb flexibility to meet a range of acoustic requirements. This skylight is fully compatible with the comprehensive range of Kingspan accessories.

### Features & Benefits

- Thermally broken high performance aluminium/uPVC frame with  $U_{\alpha}$  value of 1.1 W/m $^2$ K
- Motor-actuated opening and closing. Optional remote control
- Adapter frame 3° inclined for Flat glass skylight





Greenlite Flat Glass Skylight



Adapter frame 3° inclined for Flat Glass Skylight

Version	U <sub>g</sub> -value (W/m²K)*	Light Transmission (%)	U <sub>RC</sub>	g-value	Sound Reduction Index
Greenlite Flat Glass Skylight	1.1	68-79%	0.97-1.02	47-60%	34-39 dB

<sup>\*</sup> Calculated for horizontal application.

# Special Shape Skylight Domes

Pyramid and Round special shaped skylights consist of a high quality triple-skinned Opal polycarbonate glazing solution, available either as a fixed or as an openable skylight. Non-fragile and resistant to damage these solutions are commonly used in areas where there may be some roof access. Our glazing comes in Opal as standard, with a clear option available on request (values for the standard glazing are given in the table here).



Round Skylight Dome



Pyramid Skylight Dome

Version	U <sub>g</sub> -value (W/m²K)*	Light Transmission (%)	$U_{RC}$	g-value	Sound Reduction Index
Polycarbonate glazing, triple-skinned	2.2	43%	1.6	49%	22 dB

<sup>\*</sup> Calculated for horizontal application.

# Opal/Transparent Skylight Domes

Opal coloured glazing is supplied as standard with all our Skylight Domes, unless specified clear. Opal coloured glazing offers the following advantages when compared to clear transparent glazing:

- Heating and glare under the Skylight Dome is greatly reduced by the opal pigmentation
- Opal glazed skylights allow high levels of natural diffused light into the building
- Generally self cleaning under normal rain conditions

# Modular Skylight Bases

# uPVC Skylight Base

The uPVC Skylight Bases are available in heights of 150mm, 300mm and 500mm and can be installed on all common substructures. Naturally, all uPVC Skylight Bases are suitable for full-surface integration with bitumen roof sheeting and for homogeneous connection of uPVC, PEC, VAE and EVA roof sheeting. In combination with Skylight Domes, the uPVC Skylight Bases (30 i, 30 ih, 50 i, 50 ih) can be used for daylighting, for ventilation, as well as for smoke and heat extraction (nominal size 100/100).

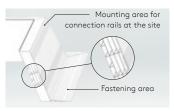
# uPVC Skylight Base 15

The uPVC Skylight Base 15 is free of thermal bridges and heat insulated around the circumference. Ventilation units can be installed quickly and easily by attaching them to the fastening points on the Skylight Base. The support edge of the Base is used for secure assembly (mounting), of all fittings or for securing Weathering Frames. This 150mm high base is typically used when fixed directly to the top of a roof system.

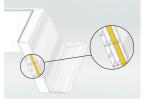


# uPVC Skylight Base 30 i and ih

The uPVC Skylight Bases in heights of 300mm and 500mm are available in two variants; "i" (insulation) with the multi-chamber system and in "ih" (insulation high) with the innovative heat insulation system. To make it easier to install, the fastening area on the flange is clearly marked. This is our most popular skylight base, is normally used fixed to the roof structure and can incorporate an optional passive "trickle" ventilation slot on request.







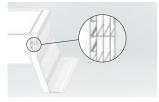
uPVC Skylight Base 30 ih



uPVC Skylight Base 30

# uPVC Skylight Base 50 i and ih

In addition, the 500mm high uPVC Skylight Base offers improved insulation for the skylight unit, and can include an optional passive "trickle" ventilation slot on request. The 500mm base is normally used fixed to the roof structure where an increased depth of roof insulation is required. Also the requirements resulting from sloping insulation can be fulfilled in this way.



uPVC Skylight Base 50 i



uPVC Skylight Base 50 ih



uPVC Skylight Base 50

# Metal Skylight Bases

# Weathering Frame

The Weathering Frame for the Classic Skylight Dome series consists of a peripheral, aluminium-reinforced and corner-welded hard uPVC profile that covers the roofing membrane connected to the Skylight Base by 100mm, providing enhanced protection from the weather. The fastening hinges for the Skylight Dome are fully premounted on the Weathering Frame.



# Metal Skylight Base, (Single-Skinned)

The Single-Skinned Skylight Bases with insulation are made of steel sheet and can be supplied in heights of 300, 400 and 500mm. The Skylight Base with the flat flange, has 40mm thick insulation integrated in it.



With insulation

# Metal Skylight Base, (Double-Skinned)

The Double-Skinned Metal Skylight Bases are constructed in aluminium on the exterior and steel on the interior. They are thermally separated, insulated and can be supplied in different heights. The Metal Skylight Bases are non-combustible and comply with European fire protection regulations. The Metal Skylight bases are non-combustible and comply with EN 13501 and BS 476 fire regulations.

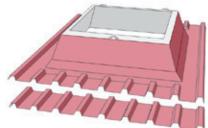


With profiled flange

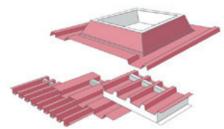
# Metal Profile Connection (MPC)

A Metal Profile Connection (sometimes known as a soaker) is an optional external weathering sheet that can be used with uPVC bases or a Single Skinned metal base to weather the roof penetration into a standard profiled metal roof system. Available to suit any trapezoidal metal roof system the MPC is a simple cost effective method of installing skylights and access hatches into a profile metal roof.

The profiled soaker sheet will be manufactured to order in accordance with individual requirements, and supplied with a minimum 200mm flange. At the time of ordering the direction of lay and all profile dimensions will need to be provided. Sealants, fillers and fixings are not supplied as part of this kit.



The full-profiled version



The part-profiled version

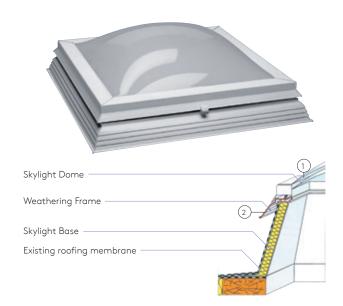
# Skylight Repair & Renovation Set

# Repair Set

Repair Sets are available for all Skylight Domes. When replacing a dome the Weathering Frame allows easy exchange of the Skylight Dome skin and secure attachment to the existing Skylight Base. The Weathering Frame consists of a peripheral, aluminium-reinforced and corner-welded plastic profile that covers the roofing membrane, connected to the Skylight Base, by 100mm.

### The Repair Set includes:

- 1 Skylight Dome
- (2) Weathering Frame



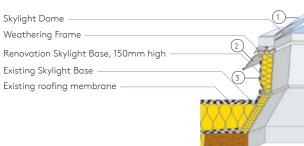
# Renovation Set

The Renovation Set can easily be installed on on any existing Skylight Base. The Renovation Skylight Base has a height of 150mm, is heat insulated and consists of hard uPVC.

# The Renovation Set includes:

- 1 Skylight Dome
- 2 Weathering Frame
- 3 Renovation Skylight Base





The Repair Set and Renovation Set can be supplied for all standard Skylight Domes sizes, but can also be supplied in a customised size, as well as for all third-party products upon request. The "Refurbishment and repair of Skylight Domes" checklist will assist in determining the required data and dimensions.

# Roof Access Hatches

All Access Hatches (except Type 6/1 Access Hatch for retrofitting) are prefabricated at the factory, and available with uPVC bases or Metal bases as standard. The opening angle depends on the type of Access Hatch and size of the opening. All Access Hatches are tested for non-fragility to ACR[M]001:2014 and achieve Class B when installed in accordance with Kingspan details.

# Access Hatch with linear drives (Type M)

- Convenient opening and closing via two laterally attached linear drives and additional locking drive on the opening side
- Convenient entry and exit with all nominal sizes
- Opening and closing possible per vent switch
- Can be used for daily aeration and ventilation
- Secure fixing of the Skylight Dome in all positions
- Optionally available with ladder support point
- Can be used for geometric smoke dissipation



# Access Hatch with gas spring fittings (Type G)

- Easy and controlled opening by means of two gas pressure springs fitted on both sides
- Secure fixing of the Skylight Dome in the open position through highly effective end position cushioning of all gas compression springs
- Locking of the Skylight Dome by a secure lock
- Access Hatches can be configured to lock from the inside or outside, and can be used for entry or exit
- Standardised opening width of 1100mm

The Access Hatches Type M and Type G with additional chain drive, can also be used for smoke dissipation - Set consists of Access Hatch Type M or Type G with additional chain drive, Classic Plus with Skylight Base and staircase control panel.



With gas spring fitting, chain drive and ladder bracket

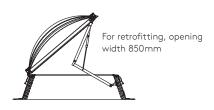


# Access Hatch with scissor arm (Type 6/1)

The Access Hatch with scissor arm Type 6/1 is available for retrofitting existing Classic Skylight Domes. The integrated gas pressure springs provide the correct force for convenient opening and closing, in all available nominal sizes.



Secure locking mechanism with convenient lock



# Sky-XS

Legislation is becoming increasingly tight with regard to the safety of roof access. These measures are designed to vouch for the safety of mechanics while performing installation and maintenance on roofs. The Sky-XS roof access hatch is therefore equipped with an easy to open/close hatch, which was developed not only all safety requirements applicable, but also provides exceptionally for energy performance by avoiding heat loss and cold bridging.

The roof access hatch is made of high quality aluminium, and supplied as standard with a completely corrosion-resistant, blank finish. If required, the Sky-XS can also be supplied with a powder coat finish in RAL colour (outside RAL 7045, inside RAL 9010).

The raised edge of the hatch has a unique insulation thickness of 50 mm. Furthermore, the overall height of the hatch enables the addition of an extra 19 cm thick layer of insulation material.

However, the cover of the hatch itself is also fitted with an extra thickness insulation layer. U value:  $0.54~\text{W/m}^2\text{K}$ .

### Regulations

The roof hatch is compliant with the following:

- Insulation value (EN-ISO 10077-1/2): 1,7 1,9 W/m<sup>2</sup>K
- Sound insulation (EN-ISO 140-3): 22 dB
- Wind and watertightness (EN 1027/EN 1873): 650 Pa
- Structural strength (EN 1026/EN 1027):  $\pm$  3000 Pa
- Airtightness (EN 1026): class 4, < 0,1m³/hour/m2 at 100 Pa
- Loadbearing capacity (EN 1991-1/5): 200 kg/m<sup>2</sup>

### Locking

The Sky-XS roof access hatch is equipped with a unique lock which is aesthetically incorporated in the hatch opening mechanism. It therefore causes hardly any obstruction whatsoever to roof access, which helps improve safety. The lock allows for easy fastening and unfastening.

### Roof access hatch dimensions

B x L: 700 x 900mm / 900 x 900mm / 700 x 1400mm / 900 x 2400mm / 1000mm x 1000mm

### Ladders

The Sky-XS roof access hatch is available in various models, and including a choice of ladders and accessories.

### Single ladder

2650mm (EL10) /2900mm (EL11) /3150mm (EL12) / 3400mm (EL13) /3650mm (EL14)

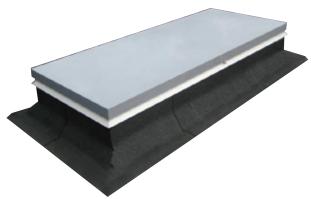
### Double ladder

2150/3400mm (OL208) /2400/3900mm (OL209) / 2650/4400mm (OL210)

### Folding stairs

 $700 \times 900$ mm (small)  $/700 \times 1200$ mm (large)





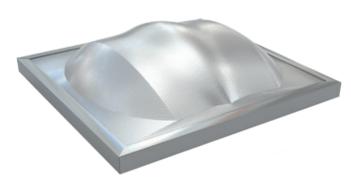
# Accessories

- Fastening hooks
- Wall bar
- Mounting bracket
- Lockable mounting bracket

# Day-Lite Kapture

# Day-Lite Kapture

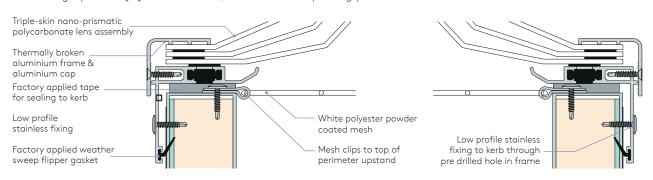
The rooflight is triple-glazed using specially designed polycarbonate layers to maximize both light transmission and diffusion. The shape of the rooflight unit has been specially designed to capture the maximum level of light, even at low angles, so is ideal for use in geographical areas such as Northern Europe. The rooflight units are pre-glazed ready for installation in to the prefabricated kerbs. The U-value of the polycarbonate glazing is 2.2 W/m<sup>2</sup> K. Through the utilization of nano-prismatic technology, Kapture Skylights offer exceptional levels of light transmission, coupled with 100% diffusion and 100% UV resistance. Additionally, nano-prismatic technology eliminates glare and therefore hot spots, reducing heat gains in buildings. More light is directed to the work plane, providing the light levels required in any building for more hours than any other rooflight. With these features, Kapture Skylights will help comply with daylighting requirements, new European Daylighting Guidelines and BREEAM H01 Visual comfort requirements.



### **Applications**

KS700DLK, KS1400DLK, KS1500DLK & KS2750DLK rooflights are suitable for use with all Kingspan insulated roof panels as well as other roof systems. Frames include an integral condensation and drainage gutter which drain interior moisture to the outside.

- Unique shape captures low incident light and redirects it into the building
- Provides more hours of natural daylight than any other rooflight
- Nano-prismatic technology provides optimal performance: over 80% visible light transmission and 100% diffusion
- Non-fragility to ACR [M]001:2014 Class B, when installed as per Kingspan details



Product Reference	Product Reference Diffusion		Light Transmittance (%)**	
Standard 100%		0.70	83	
Climate Control	100%	0.45	81	

<sup>\*\*</sup> Light transmission according to EN 410 is as measured on 600mm x 600mm samples

	KERE	KERB O.D		imensions	Daylight	Opening Dir	mensions	Skylight	Kerb	Kerb	Mesh
Product	Length	Width	Length	Width	Length	Width	Area	Weight	Height	Weight	Weight
Reference	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(m²)	(kg)	(mm)	(kg)	(kg)
KS700DLK	770	770	810	810	682	682	0.465	12	150 309	19.2 27.8	0.9
KS1400DLK	770	1550	810	1590	682	1462	0.997	24	150 309	29.0 41.7	1.9
KS1500DLK	1620	1550	1660	1590	1532	1462	2.24	44	150 309	39.5 57.0	4.2
KS2750DLK	2836	1550	2875	1590	2748	1462	4.018	62	150 309	54.5 78.7	7.6

# Day-Lite Kapture

# Day-Lite Kapture Air

The Day-Lite Kapture Air rooflight is suitable for use with all Kingspan insulated roof panels as well as other roof systems. The rooflight is triple-glazed using specially designed polycarbonate layers to maximize both light transmission and diffusion. The shape of the rooflight unit has been specially designed to capture the maximum level of light, even at low angles, so is ideal for use in geographical areas such as Northern Europe. The U-value of the 300mm skylight base is 1.3 W/m²K. The U-value of the polycarbonate glazing is 2.2 W/m²K. The optional safety security fabricated wire mesh has been tested to withstand the impact of a 50kg weight (400mm in diameter) dropped from a height of 2400mm (BS EN 1873:2014 Class SB1200).

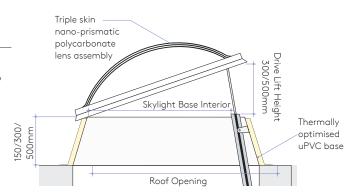
The rooflight features a motorised actuator for daily aeration and ventilation, as well as for exploiting daylight. Quick and easy installation. Can be installed in roofs with pitches up to  $25^{\circ}$  (max).

The rooflight base is manufactured in two materials:

- 1. Heat-insulating white uPVC, which is available in heights of  $150\,\mathrm{mm}$ ,  $300\,\mathrm{mm}$  or  $500\,\mathrm{mm}$
- 2. Galvanised steel, which is available in heights of 300mm, 400mm or 500mm.

- Unique shape captures low incident light and redirects it into the building
- Provides more hours of natural daylight than any other rooflight
- Nano-prismatic technology provides optimal performance: over 80% visible light transmission and 100% diffusion
- Non-fragility to ACR [M]001:2014 Class B, when installed as per Kingspan details





Product Reference	Diffusion	SHGC (g-value)	Light Transmittance (%)**
Standard 100%		0.70	83
Climate Control	100%	0.45	81

<sup>\*\*</sup> Light transmission according to EN 410 is as measured on  $600 \text{mm} \times 600 \text{mm}$  samples

5	Roof C	pening	Skylight E	Base Interior	Drive Lift	Free Ventilation	
Product Reference	Length (mm)	Width (mm)	Length (mm)	Width (mm)	Height (mm)	Area m²	
KS700DLK	930	930	730	730	300	0.44	
KS700DLK	930	930	730	730	500	0.73	
KS1400DLK	1720	930	1520	730	300	0.68	
KS1400DLK	1720	930	1520	730	500	1.13	
KS1500DLK	1720	1790	1520	1590	300	0.93	
KS1500DLK	1720	1790	1520	1590	500	1.56	
KS2750DLK	1720	2996	1520	2796	300	1.29	
KS2750DLK	1720	2996	1520	2796	500	2.16	

# Day-Lite Kapture

# Day-Lite Kapture Smoke Vent

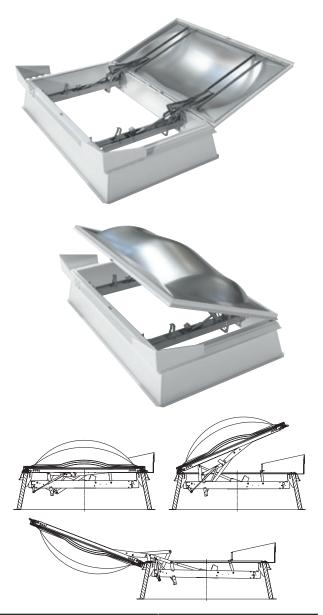
The Day-Lite Kapture Smoke Vent rooflight is suitable for use with all Kingspan insulated roof panels as well as other roof systems. The rooflight is triple-glazed using specially designed polycarbonate layers to maximize both light transmission and diffusion. The shape of the rooflight unit has been specially designed to capture the maximum level of light, even at low angles, so is ideal for use in geographical areas such as Northern Europe. The U-value of the 300mm skylight base is 1.3 W/m²K. The U-value of the polycarbonate glazing is 2.2 W/m<sup>2</sup>K. The safety security fabricated wire mesh has been tested to withstand the impact of a 50kg weight (400mm in diameter) dropped from a height of 2,400mm (BS EN 1873:2014 Class SB1200).

The rooflight features a natural smoke and heat extraction system via an electric 24v/48v actuator, with a 165° opening angle. The opener is triggered, at 68°C or via manual triggering at emergency triggering stations. Quick and easy installation. Can be installed in roofs with pitches up to 25° (max). For smoke ventilation areas (Aa) please refer to product data sheets. Note that all smoke safety solutions must be commissioned by Kingspan  $\,$ Light + Air or one of our certified partners.

The rooflight base is manufactured in two materials:

- 1. Heat-insulating white uPVC, which is available in heights of 300mm or 500mm
- 2. Galvanised steel, which is available in heights of 300mm, 400mm or 500mm

- Unique shape captures low incident light and redirects it into the building
- Provides more hours of natural daylight than any other
- Nano-prismatic technology provides optimal performance: over 80% visible light transmission and 100% diffusion
- Non-fragility to ACR [M]001:2014 Class B, when installed as per Kingspan details



Product Reference	Diffusion	SHGC (g-value)	Light Transmittance (%)**	
Standard 100%		0.70	83	
Climate Control	100%	0.45	81	

<sup>\*\*</sup> Light transmission according to EN 410 is as measured on 600mm x 600mm samples

Product	В	uild up (mr	n)	Rain drumming result,	Sound Reduction	
Reference	Outer	114 (10)			Index	Test Date
KS1400DLK	3	1.5	3	66.1	25 (-1;-3)	17/01/2017
KS1500DLK	3	3	3	65.3	23 (-1;-3)	17/01/2017
KS700DLK	3	1.5	3	65.7		18/04/2018
KS700DLK - 4mm liner	3	1.5	4	64.5		18/04/2018
KS2750DLK - 4mm liner	3	1.5	4	64.6		18/04/2018
Classic LK 120/240	3	3	3	61.7		17/04/2018

# Continuous Barrel Vault Rooflights

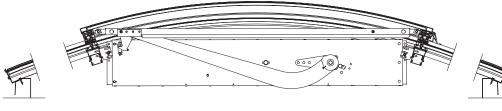
# Arcade Rooflight

The Arcade Rooflight is a standard modular system for industrial and commercial roofs (for example warehouses or sport centres) with a roof slope of up to 20°. It can be used for pure daylighting, aeration or complex smoke and heat extraction – in new builds and refurbishment projects. The profile system is made from aluminium and the glazing material multi-wall polycarbonate.



### Features & Benefits

- Available in any length and in span widths of 1–6  $\,m$
- Different glazing options available for a wide range of requirements
- Extremely functional with a wide range of accessories
- Individually adaptable to static requirements
- Non-fragility to ACR (M) 001:2014 Class B, when installed as per Kingspan details



# Double flap with NSHE

- Installation position: Over the entire span of the arcade rooflight
- Flap Dimensions:

1000 x 2000mm

2060 x 2000mm

3120 x 2000mm

1000 x 2500mm

2060 x 2500mm

- SHE flap systems tested in accordance with EN 12101-2

# Apex vent with NSHE

- Installation position: In the ridge with two frame profiles for mounting
- Flap dimensions:

870 x 2060mm

870 x 1000mm

1370 x 2060mm

1370 x 1000mm

1670 x 2060mm

1670 x 1000mm

- SHE flap systems tested in accordance with EN 12101-2

Glazing Options	Span Width in m	U <sub>g</sub> Value (W/m²xK)	Sound Reduction (weighted SRi)	Light Transmission <sup>3)</sup> (%)	g Value <sup>3)</sup> Opal (%)
PC 10/4	1 - 6	2.5 1)	19	61	61
PC 16/7	2 - 6	1.8 1)	21	45	46
PC 20/7	2.5 - 6	1.7	23	44	45
PC 10/4 + 10/4	1 - 6	1.7	24	37	43
PC 10/4 + glass mat + PC 10/4 <sup>2)</sup>	1 - 6	1.7	24	27	33
PC 16/7 + 10/4 <sup>2)</sup>	2 - 6	1.3	24	28	37
PC 16/7 + glass mat + PC 10/4 <sup>2)</sup>	2 - 6	1.3	24	20	29
PC 16/7 + 6mm PETG	2 - 6	1.9	30	38	43
PC 10/2 with Aerotech Filling	1 - 4	2	21	74	71
PC 16/3 with Aerotech Filling	2 - 4	1.3	21	65	64
PC 20/3 with Aerotech Filling	2 - 4	1.1	21	63	63
PC 16/7 IR Control White	2 - 6	1.8 1)	21	22	31
PC16/7 + 16/7	2 - 6	1.1	25	20	29

<sup>1)</sup> Vertical installation

NSHE (T-05) from span of 1.35 m (national)

The specified sound reduction corresponds to the value of the glazing option

 $<sup>^{2)}</sup>$  Meets the requirements of "hard roofing" B roof (t1)

<sup>3)</sup> Opal glazing only, others available on request

Product Overview

# Continuous Barrel Vault Rooflights

# Arcade PLUS Rooflight

The modular Arcade PLUS Rooflight supplements the proven Kingspan rooflight systems with an energy-rated, high quality, thermally separated, arched aluminium profile design. This makes it ideal for use in new builds and refurbishment projects with increased requirements on heat insulation, sealing and condensation protection. For example heated industrial halls, trade fair halls, sport and exhibition halls, commercial and administration buildings. The system can be used for flat roofs with a maximum slope of 20° (larger slopes available upon request). Compatible with Kingspan frame systems or custombuilt frame upstands. It features an intelligent connection system thanks to its retroffitable frame safety connection made of EPDM. The profile system is made from aluminium and the glazing material multi-wall polycarbonate.



- Available in any length in span widths of 1-6 metres
- Individually adaptable to static requirements
- Different glazing options available for a wide range of requirements such as heat, sound, sun or emission protection
- High sealing integrity of the overall system
- Saving of heating costs due to highly efficient overall design
- Safety drainage in a labyrinth system

Glazing Options	Span Width in m	U <sub>g</sub> -value (W/m² K)	Sound Reduction Index	Light Transmission *** (%)	g-value *** opal (%)	Fire Behaviour
PC 16/7	2 - 6	1.8*	22	43	47	B-s1, d0
PC 20/7	2.5 - 6	1.7	19	54	47	
PC 10/4 + 10/4	1 – 6	1.7	24	36	43	E
PC 10/4 + glass fleece + PC 10/4**	1 – 6	1.7	22	27	36	E
PC 16/7 + 10/4	2 - 6	1.3	24	19	22	E
PC 16/7 + glass fleece + PC 10/4**	2 - 6	1.3	24	27	33	-
PC 16/7 + 16/7	2 - 6	1.1	25	20	29	-
PC 16/7 + 6 mm PETG	2 - 6	1.9	30	38	43	Е
PC 10/2 Aerogel	1 – 4	2	_	74	71	Е
PC 16/3 Aerogel	2 - 4	1.3	_	65	64	Е
PC 20/3 Aerogel	2.5 – 4	1.1	_	63	63	Е
IR control	2 - 6	1.8	22	22	31	B-s1, d0

U\_ and U\_ inst can be calculated individually on request. The Classic Plus Arcade Rooflight is supplied with a pitch of 1/5 or 1/9 depending on the glazing material and width.



Classic Plus Arcade Rooflight with ridge flap

Dimensions (m)					
0.87 x 1	1.37 x 2				
0.87 x 2	1.67 x 1				
1.37 x 1	1.67 x 2				



Classic Plus Arcade Rooflight with double flap

Dimensions (m)					
1 x 2	1 x 2.5				
2.06 × 2	2.06 x 2.5				
3.12 x 2	_				

<sup>\*\*</sup> Meets the requirements of "hard roofing" B roof (t1)

<sup>\*\*\*</sup> Opal glazing only, others on request

# Louvred Ventilation Units

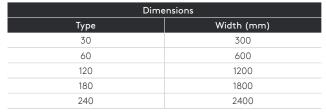
# Eura, Eura Excellent and Eura-R

The fall-through protected Eura and Eura-R are suitable for natural ventilation and smoke and heat extraction. They extract large amounts of air, smoke and heat within a short period of time and can be used for supplying air (façade) and for extracting air (façade and roof). The Eura-R variant also has side openings with integral rain gutter providing all-weather ventilation. The fins are made from toughened, corrosion-resistant aluminium (AlMg3). Optionally anodised or powder-coated (in RAL colours) upon request.

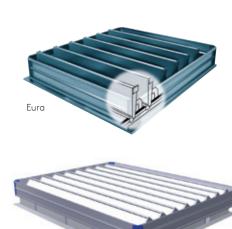
The Eura Excellent, with its strongly improved insulation value, is based on the Eura louvred ventilator which has already been applied for decades. This ongoing development is done in the context of enhancing the thermal insulation values. Using new materials and techniques helps achieve a U-value improvement of up to 56%. The Eura Excellent is perfectly capable of extracting large amounts of air and heat in a short time, and is suitable for both air supply (façade) and air extraction (façade and roof). The impact resistant, EN 12101-2 certified Eura Excellent can be supplied in two base versions with various high-insulating louvre types.

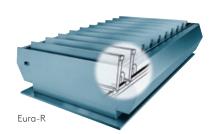
# Features & Benefits

- Quick opening and closing
- Large selection of operating systems
- Flexible installation/set-up between 0° and 90° (Eura-R  $\leq$  30°)
- Optionally available with sound traps and wire nets
- Certified in accordance with EN 12101-2



The Eura can be combined in any width with all lengths. Special sizes available upon request. Eura-R is only available up to 1800mm maximum width.





Fura Excellent

Dimensions					
Length (mm)*	Number of Lamellas				
720	3				
940	4				
1160	5				
1380	6				
1600	7				
1820	8				
2040	9				
2260	10				
2480	11				
2700	12				
2920	13				
3140	14				
3360	15				
3580	16				
3800	17				

 $<sup>\</sup>star$  note effective length of uninsulated high base is affected by 40mm.

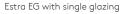
# Louvred Ventilation Units

# Estra EG/TG Facade Ventilation

The Estra is designed for vertical installation and available in the variants Estra EG with single glazing and Estra TG with double glazing. Frames and lamellas can be supplied in flexible height dimensions (100/160 – 300mm). The Estra can be integrated aesthetically in the building lines designed by the architects. The glazing options are available in glass or polycarbonate or sandwich panels/fill in panels. The Estra EG model has a thermally-insulated edge profile with aluminium panel (8 or 10mm). The Estra TG has a thermally-insulated edge profile and lamella profile with aluminium composite panel (thickness 24mm).

- Also space-saving when open due to blades with central hinges
- Ideal for use as fully integrated smoke and heat extraction and ventilation solutions
- Can be optionally implemented with a compressed air cylinder or electrical linear drive
- Thanks to the integrated middle bar, large areas can be provided with effective ventilation
- Tested and certified as NSHE in accordance with EN 12101-2







Estra TG with double glazing

Dimensions							
Туре	Flange Width (mm)	Flange Height (mm)	Lamella Height (mm)				
Estra EG Lamella	400 - 1500 (without centre sash bar) Up to 3000 (with centre sash bar)	700 - 3000	100 - 300				
Estra TG Lamella	400 - 1600 (without centre sash bar) Up to 3000 (with centre sash bar)	700 - 3000	160 - 300				

Glazing Options	Estra EG	Estra TG
U <sub>g</sub> -value (W/m² K)	5.6 - 5.7	1.1 - 2.9
Soundproofing quality (dB)	-	19
Air permeability	-	EN 1026: 600 Pa, EN 12207: Class 3
Water tightness	-	EN 1027: 250 Pa, EN 12208: Class 6A
Resistance to variable wind loads	-	Class C2, 800 Pa
Deformation	-	< 1/300 in accordance with EN 12210/EN 12211

Tested and approved for smoke and heat extraction (SHE) with the following benefits in accordance with EN 12101-2				
Resistance to fire	B 300			
Functional reliability	Re 1,000			
Wind load	WL1,500			
Snow load	SL 0			
Triggering at low temperatures	T(-15)			
Cv-value	0.49-0.58			

# Polycarbonate Rooflights

# Day-Lite Trapezoidal KS1000 DLTR, KS1000 DLTR KOOL 1.6 FAS and KS1000 DLTR Plus

Designed to be an integral part of the Trapezoidal Roof panel system, Day-Lite Trapezoidal and Day-Lite Trapezoidal Plus are suitable for all building applications with a roof pitch of 4° or above after deflection, except where the occupants or processes add significant quantities of water to the air, or where there are internal environments with low temperatures.

Day-Lite Trapezoidal is a range of co-extruded, multi-wall polycarbonate rooflights. Two thicknesses are available, offering U-values of 1.6 W/m²K and 1.0 W/m²K. Day-Lite Trapezoidal Plus is a factory assembled co-extruded, multi-wall polycarbonate rooflight offering U-values of 1.3 W/m²K and 0.8 W/m²K. This premium polycarbonate rooflight system features a flush fixing which results in an enhanced flush internal finish, and has been designed specifically for quick and simple installation.

# KS1000 DLTR 1.6 KS1000 DLTR PLUS 1.3 KS1000 DLTR 1.0 KS1000 DLTR PLUS 0.8

### Features & Benefits

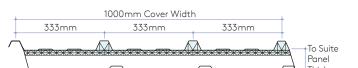
- Excellent light transmission with minimal degradation
- Opal diffused finish as standard, Clear also available or other finishes subject to minimum quantities
- Low solar heat gain
- High degree of colour fastness will not discolour over time
- KS1000 DLTR KOOL 1.6 FAS offers enhanced light transmission and even lower solar heat gain
- Suitable for roof pitches of 4° or more
- Excellent air and weather tightness

Product Reference	Thickness (mm)	Weight (kg/m²)	U-value (W/m²K)*	Light Transmission (%)**	Solar Heat Gain Coefficient***
KS 1000 DLTR 1.6	24	3.3	1.6	61	0.57
KS1000 DLTR 1.0	40	6.0	1.0	41	0.44
KS1000 DLTR KOOL 1.6 FAS	to suit roof panel	4.25	1.6	58	0.48
KS1000 DLTR PLUS 1.3	to suit panel	5.17	1.3	55	0.52
KS1000 DLTR PLUS 0.8	to suit panel	6.23	0.8	40	0.43

<sup>\*</sup> Based on an 80mm module with spacers at 1.8m centres. The U-values have been calculated using the method required by the appropriate National Building Regulations.

# Day-Lite Trapezoidal KS1000 DLTR and KS1000 DLTR KOOL 1.6 FAS





Day-Lite Trapezoidal Plus KS1000 DLTR PLUS

Core Thickness (mm)	40	50	60	70	80	100	115	120	137	150
KS1000 DLTR 1.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
KS1000 DLTR 1.0	✓	•	✓	✓	✓	✓	✓	✓	✓	✓
KS1000 DLTR PLUS 1.3	•	•	•	•	✓	✓	✓	✓	✓	✓
KS1000 DLTR PLUS 0.8	•	✓	✓	✓	✓	✓	✓	✓	✓	✓

<sup>\*\*</sup> Based on a Opal polycarbonate finish. Light transmission, according to BS EN 410, is as measured on 600mm x 600mm samples

<sup>\*\*\*</sup> Solar Heat Gain Coefficient (SHGC), according to BS EN 410, is the total solar energy that enters the interior of a building. In addition to the standard Day-Lite colour range, White (0.34 SHGC) is also available, offering enhanced SHGC performances. Please contact the Kingspan Technical Services Department for more information.

# Polycarbonate Rooflights

# Day-Lite Vault KS1000 DLVLT

Day-Lite Vault, KS1000 DLVLT, is a translucent polycarbonate barrel vault rooflight for flat or low-pitch roofs, that allows high levels of natural light into buildings, providing excellent long-term light transmission, thermal and structural properties. Day-Lite Vault is designed specifically to integrate with Kingspan Topdek roof deck, and offers a UV-resistant daylighting system with a U-value of 1.1 W/m<sup>2</sup>K.



### Features & Benefits

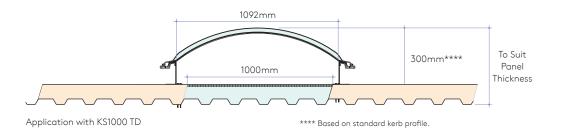
- Specially designed for integration with Topdek roof panels
- Suitable for flat and pitched roofs above 0.72° after deflection
- Offers a low U-value of 1.1 W/m<sup>2</sup>K
- Modular design allows any length continuous rooflight run to be achieved

Product Reference	Overall Height	Weight	U <sub>g</sub> -value	Light	Solar Heat
	(mm)	(kg/m²)*	(W/m²K)***	Transmission (%)**	Gain Coefficient
KS1000 DLVLT	to suit panel	variable	1.1	41	0.41

<sup>\*</sup> Weight is dependent upon the Topdek roof deck thickness specificied. Please refer to the product data sheet for more information. The U-value has been calculated using the method required by the appropriate National Building Regulations.

\*\* Based on a clear polycarbonate finish. Light transmission, according to BS EN 410, is as measured on 600mm x 600mm samples

<sup>\*\*\*</sup> Standard U-value is shown above. Standalone U-value of FAU is 1.35 W/m²K. Solar Heat Gain Coefficient (SHGC), according to BS EN 410, is the total solar energy that enters  $the\ interior\ of\ a\ building.\ Please\ contact\ the\ Kingspan\ Technical\ Services\ Department\ for\ more\ information.$ 



# Day-Lite Vault rooflight systems are supplied with three main components:

- 1. Factory assembled unit (FAU);
- 2. Barrel vaults;
- 3. End caps.

A standard kerb designed to be fixed at purlin centres is available and should be supplied by Kingspan, along with the standard clamps and other components.

# Wall Light Systems

# Day-Lite Klick KS500 DLKK

Day-Lite Klick is a secret-fix wall light system typically suited for vertical applications. Featuring an innovative joint detail, this flexible wall light system is designed for stand-alone use where no integration with insulated panels is required, and is combined with an extruded aluminium frame to allow for use with a range of building materials including insulated panels, brick and render. The system is suitable for most building applications, although very low temperature environments may not be appropriate. If used as a rainscreen application the cavity must be fully ventilated to prevent heat gain within the cavity. Day-Lite Klick is available in standard lengths of up to 12m. Longer lengths are available upon request.

- Designed for stand-alone use or integration with a range of building materials
- Offers a low U-Value of 0.98 W/m²K
- Available in lengths up to 12m as standard
- Available in a range of colours



Product Reference	Thickness (mm)	Weight (kg/m²)*	U <sub>g</sub> -value (W/m² K)**	Light Transmission (%)***	Solar Heat Gain Coefficient ****
KS500 DLKK Clear	40	4.0	0.98	60	0.64
KS500 DLKK Opal	40	4.0	0.98	49	0.57
KS500 DLKK Blue	40	4.0	0.98	20	0.51
KS500 DLKK Green	40	4.0	0.98	46	0.55
KS500 DLKK Purple	40	4.0	0.98	15	0.54
KS500 DLKK Red	40	4.0	0.98	27	0.56
KS500 DLKK Orange	40	4.0	0.98	34	0.59
KS500 DLKK Yellow	40	4.0	0.98	59	0.61

 $<sup>{}^{\</sup>star}\operatorname{\mathsf{A}}\nolimits\operatorname{\mathsf{full}}\nolimits\operatorname{\mathsf{system}}\nolimits\operatorname{\mathsf{weight}}\nolimits,\operatorname{\mathsf{including}}\nolimits\operatorname{\mathsf{perimeter}}\nolimits\operatorname{\mathsf{extrusions}}\nolimits,\operatorname{\mathsf{will}}\nolimits\operatorname{\mathsf{depend}}\nolimits\operatorname{\mathsf{on}}\nolimits\operatorname{\mathsf{project-specific}}\nolimits\operatorname{\mathsf{design}}\nolimits.$ 

<sup>\*\*\*\*</sup> Solar Heat Gain Coefficient (SHGC), according to BS EN 410, is the total solar energy that enters the interior of a building.



<sup>\*\*</sup> The U-value has been calculated using the method required by the appropriate National Building Regulations.

<sup>\*\*\*</sup> Light transmission, according to BS EN 410, is as measured on 600mm x 600mm samples.

# Wall Light Systems

# Day-Lite Architectural KS1000 DLAWP

Day-Lite Architectural is a secret-fix, translucent polycarbonate wall light system suitable for both vertical and horizontal applications. The system is fully compatible with all Architectural Wall Panel (AWP) and Optimo wall panels. The system is suitable for all building applications, except where the occupants or processes add significant quantities of water to the air, or where there are internal environments with low temperatures. Day-Lite Architectural is available in standard lengths of 1.2m to 8m. Longer lengths are available upon request. Additional costs and transport restrictions may apply for non-standard lengths. All lengths may change for export (outside of the UK).

### Features & Benefits

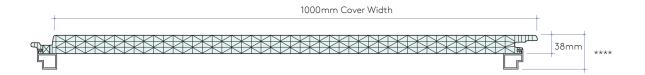
- Compatible with AWP and Optimo insulated wall panels
- Offers a low U-Value of 1.3 W/m²K
- Available in lengths up to 8m
- Available in a range of colours



Product Reference	Thickness (mm)	Weight (kg/m²)*	U <sub>g</sub> -value (W/m²K)*	Light Transmission (%)**	Solar Heat Gain Coefficient ***
KS500 DLKK Clear	40	4.0	1.3	60	0.64
KS500 DLKK Opal	40	4.0	1.3	49	0.57
KS500 DLKK Blue	40	4.0	1.3	20	0.51
KS500 DLKK Green	40	4.0	1.3	46	0.55
KS500 DLKK Purple	40	4.0	1.3	15	0.54
KS500 DLKK Red	40	4.0	1.3	27	0.56
KS500 DLKK Orange	40	4.0	1.3	34	0.59
KS500 DLKK Yellow	40	4.0	1.3	59	0.61

<sup>\*</sup> The U-value has been calculated using the method required by the appropriate National Building Regulations.

<sup>\*\*\*</sup> Solar Heat Gain Coefficient (SHGC), according to BS EN 410, is the total solar energy that enters the interior of a building.



\*\*\*\* Aluminium spacers to suit panel thickness

<sup>\*\*</sup> Light transmission, according to BS EN 410, is as measured on  $600 \text{mm} \times 600 \text{mm}$  samples.

# Aluminium Glazing Systems

# Arcilite Mono-Pitch roof glazing

# Description

Arcilite is a Glass Mono-Pitch self-supporting aluminium rooflight system. To meet thermal insulation and soundproofing requirements, Arcilite rooflights include thermally broken aluminium profiles with EPDM gaskets and double glazing, which is selected from the available range (please see table below).





### Standard Technical Characteristics

Dimension	Roof pitch	Types of Glazing	Peripheral Covering
Outside width builders upstand: from 600 mm to 2400 mm (31°-60°)/2500 mm (15°-30°) Length: unlimited Number of panels: dependent on configuration	Variable pitch between 15°, 30°, 45° or 60°	Double glazing (28, 30 and 32mm) Multiple possibilities: security, solar treatment Cool-Lite type, reinforced thermal insulation and acoustic reduction glass, tinted glass, etc.	Available polyester powder coated finish/anodised

# Arcilite Dual-Pitch

# Description

Arcilite Dual-Pitch is a Glass self-supporting rooflight system. To meet thermal insulation and soundproofing requirements, Arcilite rooflights include thermally broken aluminium profiles with EPDM gaskets and double glazing, which is selected from the available range (please see table below).





### Standard Technical Characteristics

Dimension	Roof pitch	Types of Glazing	Peripheral Covering
Outside width builders upstand: from 600 mm to 4500 mm (45°)/5000 mm (15°and 30°) Distance between 2 profiles: up to 900 mm Number of panels: dependent on configuration	Variable pitch between 15°, 30°, 45°	Double glazing (28, 30 and 32mm) Multiple possibilities: security, solar treatment Cool-Lite type, reinforced thermal insulation and acoustic reduction glass, tinted glass, etc.	Available polyester powder coated / anodised

# Aluminium Glazing Systems

# BA-4 Four-Sided Roof Glazing

### **Applications**

BA-4 four-sided roof glazing and BA-4 Economy are glass roof solutions for virtually any application, including commercial, retail, healthcare, education and residential. Featuring superb aesthetic finish and excellent acoustic performance BA-4 makes an ideal roof glazing system to enhance the look and performance of almost any building.

### Features & Benefits

- Thermally broken system
- Air permeability: EN 12207: class 4
- Water tightness: EN 12208: class E750
- Simple integration of ventilation or smoke ventilation systems from the Kingspan Light + Air range
- Range of glazing options including solar control specification





# Polycarbonate Roof Glazing Ecoplan Continuous Rooflight

### **Applications**

Ecoplan is a continuous modular designed rooflight system delivering large quantities of natural daylight. It combines an innovative aluminium framing system and multi-wall polycarbonate glazing. Being highly modular, this daylight solution can adopt to any architectural design to enhance a buildings roof and façade.

- Enables a large number of applications whether in single-side, double-side or vertical format
- Suitable for a large range of applications, with a Mono-Pitch, Dual-Pitch and vertical version available
- Opening versions of the Ecoplan Continuous Rooflight can be installed to provide both natural ventilation and smoke extraction



# Accessories

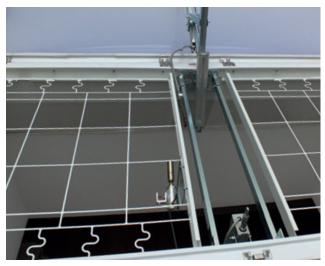
# Skylight Dome Safety & Protection Systems

Where long term non-fragility and protection against the risk of falls from height through skylights is required, our fall-through protection system is a robust solution.

The system can be integrated in all Kingspan Skylight Bases at the factory. With the Kingspan renovation Skylight Base, the solution can also be used for Skylight Bases of other brands. In case of falls, the innovative shock absorption system ensures that the impact energy is eminently absorbed and the substructure reduces the load.

Due to the system being factory assembled into the Kingspan Skylight Bases, the fall protection of the roof opening is already guaranteed once the Skylight Base is fixed, i.e. it prevents falls right from the start and guarantees permanent fall-through protection.

Where long term fall-through protection is required, especially for skylights with opening mechanisms for ventilation which will require maintenance, the FTP is a popular optional feature.



EAD fall-through protection

# Rooflight Fall-Through Protection Options

Our flat roof Permanent Fall-Through Protection meets the requirements of ACR[M]001:2014 (Class B) and BS EN 14963:2006 (Class SB1200). Secured flaps offer all-round protection, e.g. for maintenance work. Compatible with Kingspan NSHEs and ventilation drives, they are suitable for new installations or for retrofitting. The Fall-Through Protection consists of Sendzimirgalvanised thin-sheet metal. RAL coating available upon request.



# ID1200: Integrated Arcade Rooflight Fall-Through Protection Systems

The ID1200 is built directly into the Arcade Rooflight and consists of four pre-coated layers underneath polycarbonate glazing screwed onto the aluminium profile. This means the ID1200 also offers permanent Fall-Through Protection even if the glazing has been removed.



- Secures the roof opening (with its installation on the supporting structure) even before glazing installation
- Can be used regardless of the glazing material
- Secured flap openings prevent falls and offer comprehensive protection for maintenance work
- The innovative shock absorption system in case of falls (IFS) absorbs impact energy
- No net rigging required for roof openings when replacing PC panels
- Highly-durable permanent Fall-Through Protection: ID1200 tested with a 1200 J test load

# Projects















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For the product offering in other markets please contact your local sales representative or visit www.kingspanlightandair.co.uk

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