

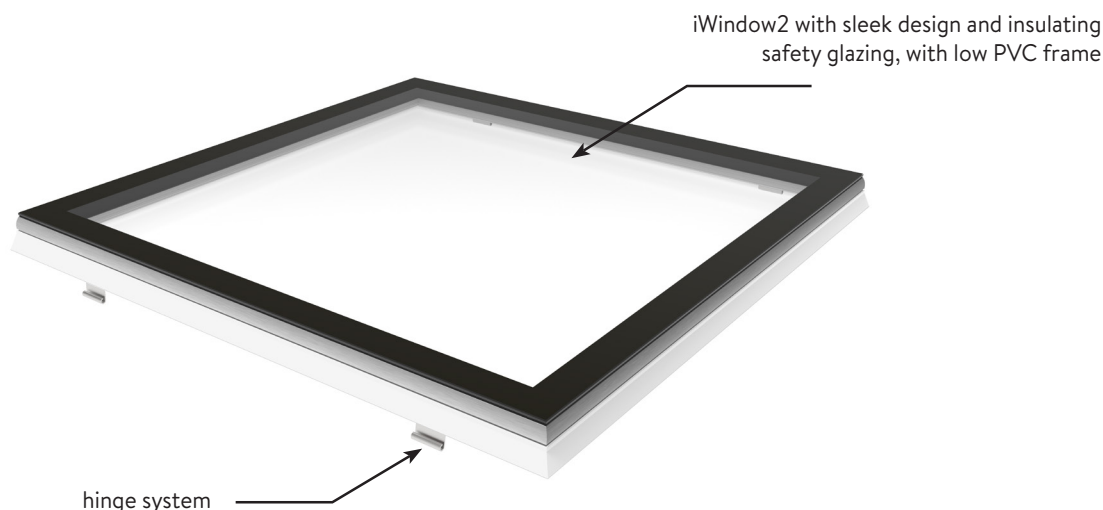


TECHNICAL FILE

Skylux[®] iWindow2[™] & iWindow3[™]

Glass skylight: for partial renovation -
installation on polyester,
metal and PVC curbs


SKYLUX[®]
Hello daylight!



General product description

The Skylux® iWindow is a super insulating flat glass skylight with a sleek design, excellent U values and an optimal light spread for applications in flat roofs. It is composed of a compact and insulating PVC frame with super insulating safety glass (HR++/ HR+++) and a sleek anodised aluminium frame. The glass is tempered and has a ceramic rim to obtain an aesthetic and smooth visual integration into the roof. The fully finished frame can easily be installed with a hinge system on a **curb of choice**; like e.g. a (existing) polyester, metal or PVC curb (*). This also makes the skylight suited for **partial renovation**. Additionally, the hinge system provides a burglarproof feature. There are two versions available: Skylux® iWindow2™ and iWindow3™ with respectively double and triple glazing. In addition to clear glass, you can also choose **opal or heat-reflective glass**. The Skylux® iWindow can be used in flat roofs with roof inclination between of at **least 4°** to max. 25°. To avoid the glass getting dirty, we recommend an inclination of 5°.

Available variants :

* Fixed model also available with high PVC frame.

* Openable model Flex 2.0 for ventilation; with high PVC frame, hinges and built-in chain actuator.

Features

- Maximum surface light entrance equal to the daylight size
- Exceptional insulation values (up to $U_t^* = 0.50 \text{ W/m}^2\text{K}$)
- Can be combined with a curb of choice (*): (existing) polyester, metal or PVC curb
- easy and quick installation with hinge system for fixed model
- openable model possible: see technical file iWindow Flex 2.0
- sleek and elegant inside and outside finish
- easy cleaning
- good sound insulation
- good air and water tightness
- large sizes are possible: e.g. 1000x2000 mm and 1000x3000 mm
- options are possible: fixed outer sunblind / electric inner sunblind or blackout blind
- many sizes available; ranging from small to large
- opal glass also possible; or heat-reflective glass

* U_t = U value of the translucent part (= glass), determined according to EN 1873:2014+A1:2016

Specific characteristics: Skylux® iWindow2™ & iWindow3™ PVC frame

Mechanical characteristics	Shock resistant PVC of frame quality type Benvic S white
Density according to ISO 1183	1450 kg/m ³
Fire class according to EN 13501-1	E

Specific characteristics: Skylux® iWindow2™ & iWindow3™ glass

	Skylux® iWindow2™	Skylux® iWindow3™
Mechanical characteristics	HR++ double glazing	HR+++ triple glazing
Type	layered (inner pane) tempered (outer pane)	layered (inner pane) tempered (outer and middle pane)
Thickness	± 39 mm	± 61 mm
Weight	± 35 to 44 kg/m ²	± 55 to 60 kg/m ²
Light transmission according to EN 410	clear...opal...heat-refl. 75%.....72%.....53%	clear...opal...heat-refl. 63%.....61%.....46%
Solar factor g (ZTA) according to EN 410	0.52 0.50 0.40	0.42 0.41 0.33
Sound insulation Rw according to EN 717-1	39 (-3, -7) dB	41 (-2, -5) dB
U _g value according to EN 673	1.0 W/m ² K	0.5 W/m ² K
Safety glass NBN EN 356	min. type P2A (44.2)	min. type P2A (44.2)
	type P4A (44.4) for 1000x3000 mm	

Specific characteristics: assembled unit

	Skylux® iWindow2™	Skylux® iWindow3™
Impact resistance according to EN 1873:2014+A1:2016	SB 1200*	SB 1200*
Air tightness according to EN 1873:2014+A1:2016	Ap 1	Ap 1

* Skylux® iWindow meets the highest classification in impact resistance but cannot be used as walkable glass.

U _{rc} value Skylux® iWindow with curb (W/m ² K)		
Skylight type / Curb type	iWindow2™	iWindow3™
PO 15/20	1.04	0.78
M15	1.05	0.78
M15EP	0.95	0.69

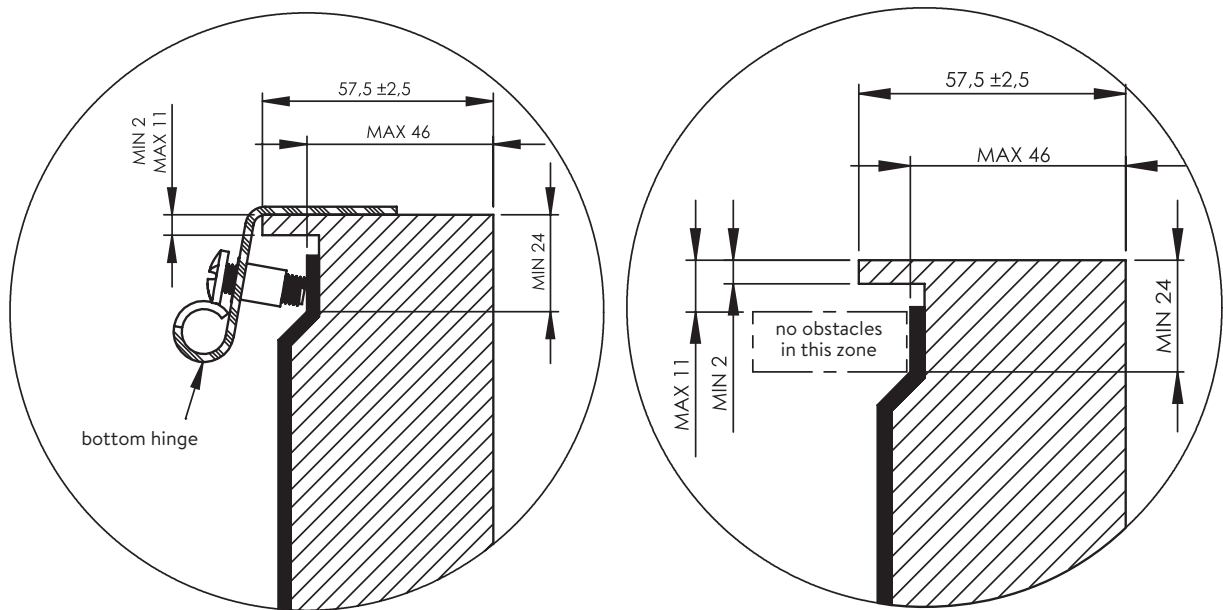
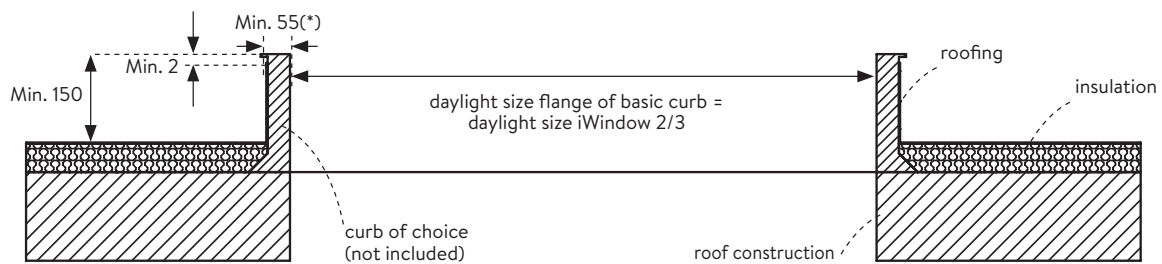
A _{rc} value Skylux® iWindow with curb (W/m ² K)		
Skylight type / Curb type	iWindow2™	iWindow3™
PO 15/20	2.19	2.09
M15	2.20	2.10
M15EP	2.21	2.11

U_{rc} = U value of the assembled system (= glass, frame and curb), determined for daylight size 100 x 100 cm, according to EN 1873:2014+A1:2016

Please notice: the U_{rc} value depends, among other things, on the insulation value of the existing / non-Skylux curb.

Suited for installation on curbs with the following characteristics (*)

- top surface is situated at least 15 cm above the roofing
- daylight size of upper flange of curb = daylight size of glass skylight
- width of upper flange of curb: min. 55 mm and max. 60 mm around (57.5 ± 2.5 mm)
- thickness of upper flange of curb: min. 2 mm and sufficiently strong over the complete width of min. 55 mm (and max. 11 mm thick on the most extreme point)
- No obstacles allowed in the indicated zone for installation of the bottom hinges (or max. 46 mm width of the curb above at 24 mm from the top) - see also detail drawings.
- The whole curb sufficiently strong to carry the weight of the glass skylight**.






Please note: for certain PVC curbs (e.g. PVC 20/00 EP), this hinge system will not be compatible for fixation. For installation on Skylux PVC curbs (e.g. PVC 20/00 EP), we recommend to use the standard installation technique with clips.

Installation system

The pre-mounted top hinges on the glass frame are on the two opposite long sides of the glass skylight. The bottom hinges must be attached to the chosen curb (*). The glass frame is placed in the hinges and briefly fixed with a burglarproof one-way screw.

Available daylight sizes

	Light incidence surface (m ²)	Daylight size (cm) iWindow2	Weight (kg)	Daylight size (cm) iWindow3	Weight (kg)
Square 	0,16	40 x 40	12	40 x 40	15
	0,25	50 x 50	16	50 x 50	20
	0,30	55 x 55	18	-	-
	0,36	60 x 60	21	60 x 60	26
	0,49	70 x 70	27	70 x 70	34
	0,56	75 x 75	30	-	-
	0,64	80 x 80	34	80 x 80	42
	0,72	85 x 85	37	-	-
	0,81	90 x 90	41	90 x 90	51
	1,00	100 x 100	49	100 x 100	67
	1,10	105 x 105	53	105 x 105	73
	1,21	110 x 110	58	110 x 110	80
	1,44	120 x 120	76	120 x 120	109
	1,69	130 x 130	88	-	-
	1,96	140 x 140	100	-	-
	2,25	150 x 150	113	-	-
Rectangular 	0,28	40 x 70	18	40 x 70	22
	0,40	40 x 100	24	-	-
	0,52	40 x 130	30	-	-
	0,56	40 x 140	32	-	-
	0,64	40 x 160	36	-	-
	0,76	40 x 190	42	-	-
	0,88	40 x 220	55	-	-
	0,88	40 x 280	69	-	-
	0,47	45 x 105	27	-	-
	0,35	50 x 70	21	-	-
	0,40	50 x 80	23	-	-
	0,50	50 x 100	28	-	-
	0,55	50 x 110	31	-	-
	0,70	50 x 140	38	-	-
	0,85	50 x 170	45	-	-
	1,00	50 x 200	52	-	-
	1,15	50 x 230	67	-	-
	0,48	60 x 80	27	-	-
	0,54	60 x 90	29	60 x 90	37
	0,72	60 x 120	38	-	-
	0,78	60 x 130	41	-	-
	0,90	60 x 150	46	-	-
	1,08	60 x 180	55	-	-
	1,20	60 x 200	68	-	-
	0,70	70 x 100	36	70 x 100	46
	0,91	70 x 130	46	-	-
	1,05	70 x 150	52	-	-
	1,12	70 x 160	55	-	-
	1,40	70 x 200	68	-	-
	1,54	70 x 220	74	-	-
	0,79	75 x 105	40	-	-
	0,94	75 x 125	47	-	-
	1,24	75 x 165	60	-	-
1,31	75 x 175	63	-	-	
1,69	75 x 225	90	-	-	

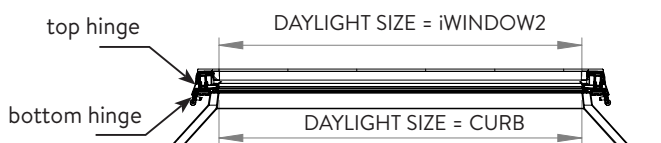
	Light incidence surface (m ²)	Daylight size (cm) iWindow2	Weight (kg)	Daylight size (cm) iWindow3	Weight (kg)
Rectangular 	0,88	80 x 110	44	-	-
	1,04	80 x 130	51	80 x 130	76
	1,12	80 x 140	55	-	-
	1,28	80 x 160	62	-	-
	1,36	80 x 170	65	-	-
	1,44	80 x 180	69	80 x 180	102
	1,60	80 x 200	85	-	-
	1,76	80 x 220	93	-	-
	1,84	80 x 230	97	-	-
	2,00	80 x 250	124	-	-
	2,24	80 x 280	139	-	-
	1,08	90 x 120	53	90 x 120	78
	1,35	90 x 150	64	-	-
	1,62	90 x 180	76	-	-
	1,89	90 x 210	87	-	-
	1,30	100 x 130	62	100 x 130	92
	1,50	100 x 150	70	100 x 150	113
	1,60	100 x 160	84	-	-
	1,80	100 x 180	94	-	-
	2,00	100 x 200	103	-	-
	2,20	100 x 220	120	-	-
	2,30	100 x 230	126	-	-
	2,50	100 x 250	151	-	-
	2,80	100 x 280	168	-	-
	3,00	100 x 300	179	-	-
	1,73	105 x 165	90	-	-
	2,36	105 x 225	128	-	-
	1,54	110 x 140	86	-	-
	1,87	110 x 170	103	-	-
	2,53	110 x 230	136	-	-
	1,68	120 x 140	93	-	-
	1,80	120 x 150	99	-	-
2,16	120 x 180	110	-	-	
2,52	120 x 210	127	-	-	
2,08	130 x 160	113	-	-	

Hinge set always on long side

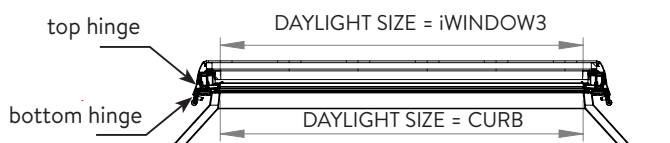
Weight (± 5%) = weight of the product, without packaging

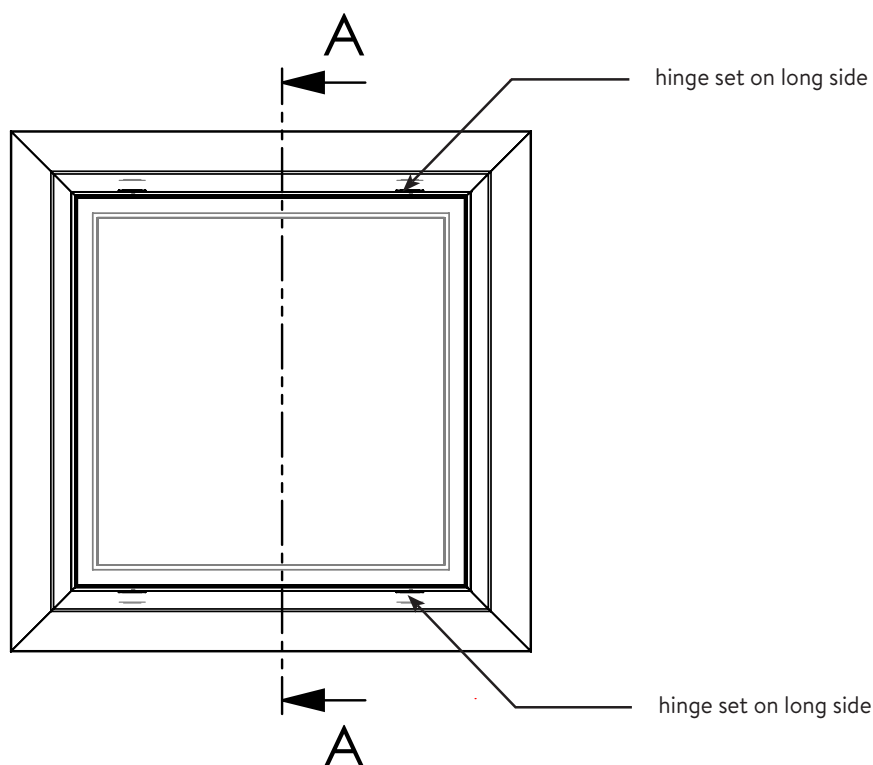
Technical drawings

Skylux® iWindow2



Skylux® iWindow3





Please note

Depending on the size and weight of the glass skylight, we recommend using appropriate lifting equipment for transport and installation.

Maintenance: it is necessary to clean the flat glass pane regularly on the outside to avoid dirt accumulation and water stagnation (flat glass bends slightly (up to ± 5 mm at 20°C), even when installed with a pitch of 4°).

To avoid heat build-up under the transparent skylight (plastic, hybrid, glass) and therefore possible deformation or damage to the PVC curb, frame, skylight dome or electrical components, it is recommended that no closed surface (e.g. black closed attic hatch) is installed under the skylights. A reflective (e.g. white) surface and/or ventilation is recommended.

** In the curb is not sufficiently strong, the curb can be deformed and/or damaged by the weight of the glass skylight.

Attestations, certificates and documentation

- Certificate fall-through safety DIN 18008-6 for Skylux iWindow2 or iWindow3, in combination with all Skylux PVC curbs or all polyester curbs, namely for all dimensions. For sizes $\leq 120 \times 120$ cm and $\leq 100 \times 300$ cm, the residual load-bearing capacity after breakage remains valid according to the DIN 18008-6 certificate (tests were executed on the largest sizes, intermediate dimensions are determined by interpolation).
- According to performances of EN 1873:2014+A1:2016, but no CE, as there is no specific norm for glass skylights.

SKYLUX NV
 SPINNERIJSTRAAT 100 - B-8530 STASEGEM
 T +32 (0)56 20 00 00 - F +32 (0)56 21 95 99
 INFO@SKYLUX.BE
 WWW.SKYLUX.EU

