

## Product information

# VELUX Centre-pivot pine roof window GGL



### Product description

- High quality natural pinewood coated with impregnation and layers of water-based acrylic white paint or clear lacquer
- Top control bar for easy operation even with furniture under the window
- Ventilation flap and integrated dust and insect filter
- Maintenance-free exterior covers

### Roof pitch

- Can be installed in roof pitches between 15° and 90°

### Materials

- Laminated pinewood
- Glass
- Lacquered aluminium, copper or zinc
- VELUX ThermoTechnology™ insulation

### Downloads

For installation instructions, CAD drawings, 3D BIM objects, 3D GDL objects, SketchUp objects etc, please visit [velux.co.uk](http://velux.co.uk)

## Certifications



The VELUX product factories guarantee quality systems implementation process and environmental management systems through appropriate accreditations ISO 9001 and ISO 14001

**EUTR** In compliance with the EU Timber Regulation (EUTR), EU regulation 995/2010

**REACH** We are aware of the REACH regulation and acknowledge the obligations. No products are obliged to be registered in accordance to REACH and none of our products contain any Substances of Very High Concern.



## Technical values

	--70	--68	--66	--62	--69	--67
<b>U<sub>w</sub> [W/m<sup>2</sup>K]</b>	1.3	1.1	1.0	0.92	1.1	0.83
<b>U<sub>g</sub> [W/m<sup>2</sup>K]</b>	1.0	0.7	0.6	0.5	0.7	0.5
<b>R<sub>w</sub> [dB]</b>	35	35	37	42	35	38
<b>g [ ]</b>	0.46	0.55	0.44	0.52	0.27	0.44
<b>τ<sub>v</sub> [ ]</b>	0.68	0.73	0.62	0.73	0.57	0.62
<b>τ<sub>UV</sub> [ ]</b>	0.05	0.05	0.05	0.05	0.05	0.05
<b>Air permeability [class]</b>	4	4	4	4	4	4

Thermal improvements such as lower U-value (U<sub>w</sub>) and lower linear heat loss coefficient (φ) can, for some variants, be obtained with frame insulation collar and/or recessed installation.

## Glazing structure

	--70	--68	--66	--62	--69	--67
<b>Inner glass pane</b>	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating	2 x 3 mm laminated float with low ε coating
<b>Middle glass pane</b>	-	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float with low ε coating	3 mm heat strengthened float	3 mm heat strengthened float with low ε coating
<b>Outer glass pane</b>	4 mm toughened with coatings	4 mm toughened with coatings	4 mm toughened with coatings	8 mm toughened with coating	4 mm toughened with coatings	4 mm toughened with coatings
<b>Cavity</b>	15 mm	2 x 12 mm	2 x 13 mm	2 x 11 mm	2 x 12 mm	2 x 12 mm
<b>Glass panes</b>	Double	Triple	Triple	Triple	Triple	Triple
<b>Gas filling</b>	Argon	Argon	Argon	Krypton	Argon	Krypton

## Glazing features

		--70	--68	--66	--62	--69	--67
	<b>Heat insulation</b> Low energy glazing provides reduced heat loss through the window and enhanced indoor comfort.	•	••	•••	•••	••	•••
	<b>Solar gain</b> In the wintertime, the heat from the sun entering through the windows is a usable solar gain.	•••	••	••	••	•	••
	<b>Solar protection</b> In warm climates and in rooms with large window areas, a sun protective coating provides a better indoor climate during summer periods. Alternatively, exterior sunscreens can be installed.					•••	
	<b>Sound insulation</b> A combination of laminated glass and optimal glass thickness provides better sound insulation. Frame/sash construction and gaskets are equally important.	••	••	•••	•••	••	•••
	<b>Security</b> Thicker laminated inner glass pane designed to increase resistance to manual attack (burglary).	•	•	•	•	•	•
	<b>Safety</b> Laminated inner glass is designed to hold the fragments together if the glass breaks. We recommend that you consider using glass units with laminated glass on the inside for windows placed above areas where people sleep, play or work.	✓	✓	✓	✓	✓	✓
	<b>Outside strength</b> Toughened outer glass pane makes your glazing more resistant to hail, heavy wind and snow loads.	✓	✓	✓	✓	✓	✓
	<b>Delayed fading of materials</b> Inner laminated glass protects materials behind the glass against UV radiation and therefore delays fading of the materials.	✓	✓	✓	✓	✓	✓
	<b>Rain noise reduction</b> The combination of laminated glass and extra thick glass helps provide a significant, audible reduction of rainfall sound. Frame/sash construction and gaskets are equally important.	✓	✓	✓	✓	✓	✓
	<b>Easy-to-clean</b> The easy-to-clean coating minimises the cleaning frequency of the outer glass pane and gives you a clearer view in case of rain.			✓			✓
	<b>Anti-dew</b> The anti-dew coating significantly reduces the days with dew on the outer glass pane and thus gives you a clear view.			✓	✓		✓

• Good   •• Better   ••• Best   ✓ Feature included in glazing variant

## Technical values, ventilation through ventilation flap

Property	Windows with double or triple glazing					
	Width					
	CK--	FK--	MK--	PK--	SK--	UK--
Air flow characteristics [l/s]	1,9	2,3	2,8	3,4	4,1	4,8
Air flow exponent [-]	0.53	0.53	0.53	0.53	0.53	0.53
Ventilation capacity at 4 Pa [l/s]	4.0	4.8	5.8	7.1	8.5	10.0
Ventilation capacity at 8 Pa [l/s]	5.7	6.9	8.4	10.2	12.3	14.5
Ventilation capacity at 10 Pa [l/s]	6.4	7.8	9.5	11.5	13.9	16.3
Ventilation capacity at 20 Pa [l/s]	9.3	11.3	13.7	16.6	20.1	23.5
Equivalent area through ventilation flap [mm <sup>2</sup> ]	2600	3100	3700	4600	5600	6600
Geometrical free area [mm <sup>2</sup> ]	2800	3700	4500	6100	7200	10600

Please note that the glazing type 62 has negligible ventilation through the ventilation flap due to the construction of the window.

**Visible features**



**1 Lock casing**

- electro-galvanised steel
- colour: "silver"



**2 Data plate**

- window type, size and variant code
- CE marking
- production code
- QR code



**3 Click-on covers**

- lacquered aluminium



**4 Control bar**

- anodised aluminium



**5 Excellent insulation**

- expanded polystyrene
- colour: grey charcoal



**6 Barrel bolt**

- plastic
- colour: grey
- steel
- colour: "silver"



**7 Hinges with friction**

- electro-galvanised steel
- colour: "silver"



**8 Barrel bolt bushings**

- plastic
- colour: white/grey

## Cleaning and maintenance



To clean the outer pane from the inside, rotate sash and secure in cleaning position with barrel bolt.



VELUX repair and maintenance kits are available.

## Exterior covers

Material	NCS standard colour	RAL nearest standard colour
<b>Lacquered aluminium</b> (-0--) grey	S 7500-N	7043
<b>Lacquered aluminium</b> (-5--) black	S 9000-N	9005
<b>Copper</b> (-1--)	-	-
<b>Titanium zinc</b> (-3--)	-	-

Special colour requests, please contact [velux.co.uk](http://velux.co.uk)

## Interior finish

<b>White paint</b>	Impregnation and layers of water-based acrylic lacquer and paint, NCS standard colour: S 0500-N, nearest RAL standard colour: 9003.
<b>Clear lacquer</b>	Impregnation and layers of water-based acrylic lacquer

Special colour requests, please contact [velux.co.uk](http://velux.co.uk)

## Flashings and installation products



Flashings:

- ED- for single installation
- EB- for twin installation
- EK- for combi installation

Available for standard and recessed installation

Installation products:

- Installation set BDX 2000 (incl BFX)
- Underfelt collar BFX 1000 incl transverse drainage gutter
- Vapour barrier collar BBX 0000
- Linings LS- (incl BBX)

## Note

We reserve the right to make technical changes.

For more information on roof window GGL and other VELUX products, please visit [www.velux.co.uk](http://www.velux.co.uk)

## Blinds, awnings and shutters



### Interior suncreening

- Blackout blind
- Roller blind
- Pleated blind
- Flying pleated blind
- Double pleated energy blind
- Venetian blind
- Duo blackout blind



### Exterior suncreening

- Awning blind
- Roller shutter



### Additional accessories

- Insect roller screen

- Available in manual and mains/solar powered versions
- Available in manual and mains powered versions
- Available in manual version

The mains and solar powered versions are part of the VELUX INTEGRA® product range.

## Control options



### VELUX INTEGRA®

- Solar upgrade kit KSX 100K can be fitted to upgrade manual windows to obtain a series of benefits



- Telescopic rod