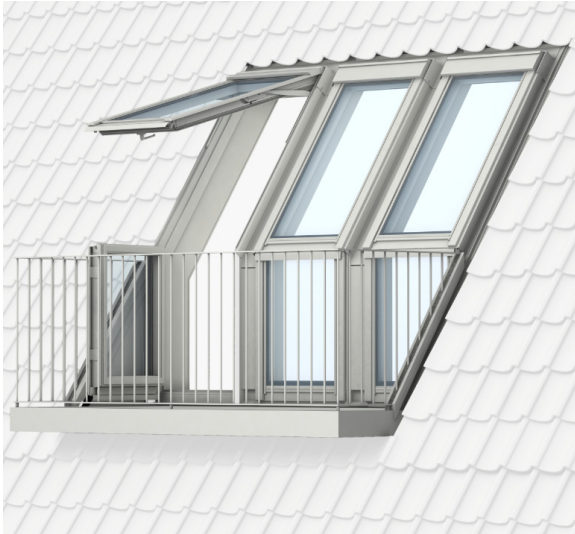


## Product information

# Roof terrace GEL + VEA/VEB/VEC



### Product description

- High quality natural pinewood coated with impregnation and layers of water-based acrylic clear lacquer or white paint
- VELUX roof terrace is available as single, double or triple. Larger combinations are possible.
- Upper section: top-hung window with bottom handle for convenient operation. The window can remain open in any position up to an angle of 45°
- Lower sections, choose between:
  - VEA side-hung, outward opening sash, opens to the left
  - VEB side-hung, outward opening sash, opens to the right
  - VEC fixed sash (non opening)
- VEA/VEB with handle on the side sash. The handle can be fitted with a lock.
- Because of structural considerations, a roof terrace can contain only one opening lower section VEA/VEB
- Triple glazing
- Ventilation flap and integrated dust and insect filter
- Maintenance-free exterior covers

### Roof pitch

- Can be installed in roof pitches between 35° and 53°

### Materials

- Laminated pinewood
- Glass, laminated inner glass / toughened outer glass
- Lacquered aluminium, copper or zinc

### Downloads

For installation instructions, CAD drawings, 3D BIM objects, 3D GEL objects, SketchUp objects etc, please visit [www.velux.bg](http://www.velux.bg).

### 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.



Available sizes and daylight area



Lining measurements

Size	Width (mm)
M--	725

Size	Height (mm)
-08	1310
-35	1050
Total	2360

Stated total height applies to roof pitch 45°. Total height of lining depends on roof pitch.



Roof terrace GEL offers direct access to the outside:

- choose to open only the upper sections as ordinary roof windows or
- choose to open both the upper and a lower section to create a doorway to the terrace

The top-hung upper section is bottom-operated and remains open in all positions up to 45°.

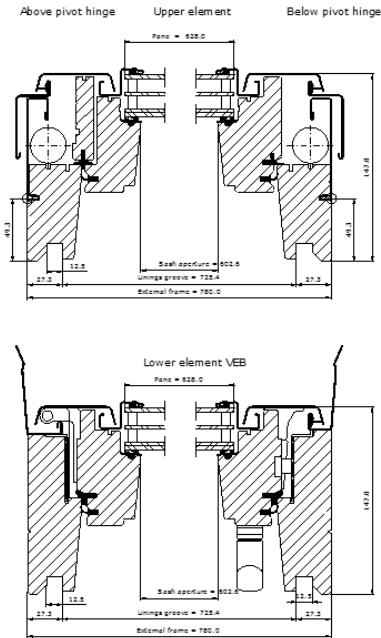
The side-hung lower section is opened/closed with a handle on the side sash.

Terrace floor and railings are not VELUX products.

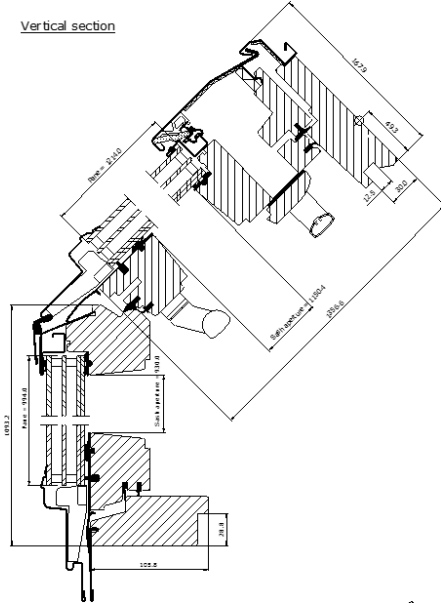
Width

Height

Horizontal section



Vertical section



### Technical values

	65G
<b>U<sub>w</sub> [W/m<sup>2</sup>K]</b>	1.2
<b>U<sub>g</sub> [W/m<sup>2</sup>K]</b>	0.5
<b>R<sub>w</sub> [dB]</b>	35
<b>g [ ]</b>	0.50
<b>τ<sub>v</sub> [ ]</b>	0.69
<b>τ<sub>uv</sub> [ ]</b>	0.05
<b>Air permeability [class]</b>	3

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

### Glazing structure

	65G
<b>Inner glass pane</b>	2 x 3 mm laminated float with low ε coating
<b>Middle glass pane</b>	3 mm heat strengthened float with low ε coating
<b>Outer glass pane</b>	4 mm toughened with coatings
<b>Cavity</b>	2 x 10 mm
<b>Glass panes</b>	Triple
<b>Gas filling</b>	Krypton

**Glazing features**

		65G
	<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 sunscreening 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>Energy balance</b> The energy balance represents the ability of the roof window to utilise the passive solar gain and keep in the heat during winter and its ability to protect against the risk of overheating during summer. Sunscreening products can further improve indoor summer comfort.	✓
	<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.	✓

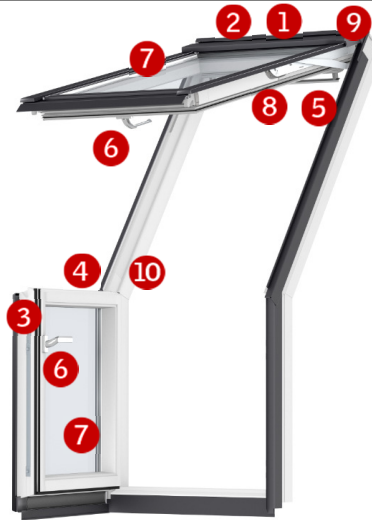
● Good   ●● Better   ●●● Best   ✓ Feature included in glazing variant

**Technical values, ventilation through ventilation flap**

Property	Windows with triple glazing
	Width
	M--
Air flow characteristics [l/s]	tbd
Air flow exponent [-]	tbd
Ventilation capacity at 4 Pa [l/s]	tbd
Ventilation capacity at 8 Pa [l/s]	tbd
Ventilation capacity at 10 Pa [l/s]	tbd
Ventilation capacity at 20 Pa [l/s]	tbd
Equivalent area through ventilation flap [mm <sup>2</sup> ]	tbd
Geometrical free area [mm <sup>2</sup> ]	tbd

tbd: to be determined

Visible features



**1 Lock casing**

- electro-galvanised steel
- colour: "silver"



**2 Data plate upper section**

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



**3 Data plate lower, opening section**



**4 Data plate lower, fixed section**



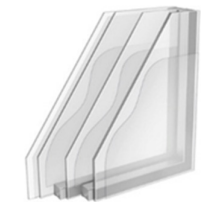
**5 Control bar**

- anodised aluminium



**6 Handles**

- bottom handle on upper sash in anodised aluminium
- handle on bottom sash in anodised aluminium



**7 Triple glazing**

- toughened outer glass
- laminated inner glass for personal safety



**8 Hinges with friction**

- electro-galvanised steel
- colour: "silver"



**9 Barrel bolt**

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



**10 Barrel bolt bushings**

- plastic
- colour: grey/white

## 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
Lacquered aluminium (-0--) grey	S 7500-N	7043
Copper (-1--)	-	-
Titanium zinc (-3--)	-	-

Special colour requests, please contact [www.velux.bg](http://www.velux.bg).

## Interior finish

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

Special colour requests, please contact [www.velux.bg](http://www.velux.bg).

## 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.

## Flashings and installation products



### Flashings:

- EE- for single, twin and combi installation
- EEX - railing foundation

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)
- Kit for lining LSG 1000 (incl BBX)

## Note

We reserve the right to make technical changes.

For more information on roof terrace GEL + VEA/VEB/VEC and other VELUX products, please visit [www.velux.bg](http://www.velux.bg).