JET-VARIO-THERM S
JET-VARIO-FIREJET® 65° (EKS-TH)

JET-composite profiles for renovation and heat insulation with system NEW European Technical Approval (ETA)

Energy efficiency through

**JET-Composite profiles:**
- In the eave profile and flap frame as a combination of:
  - Rigid PVC multi-chamber insulation structure internally
  - Aluminium border profile for design and protection externally

**In the JET-Kerb connection profile:**
- Rigid PVC multi-chamber insulation profile for kerb head
- System connection for perfect roof seals

**Application of heat insulated glazing:**
- PC 16mm 7-skin ($U_g$ value of the glazing: 1.8 W/m²K)
- PC 25mm 5-skin ($U_g$ value of the glazing: 1.4 W/m²K)
- PC 32mm 5-skin ($U_g$ value of the glazing: 1.2 W/m²K)

**System accessories:**
- Single flap (EKS-TH) – without thermal bridges
- SHEV device: JET-VARIO-FIREJET® 65° as CO₂ SHEV
- Electrical drives for daily ventilation
- SHEV fitting with open/closed function: JET-VARIO-FIREJET® 65 J AZ

**JET-Energy efficiency equipment:**
- Thermal decoupling and heat insulation of the eave area
- Thermal decoupling and heat insulation of the kerb head
- Allows a total heat transmission ($U_w$ value) of 1.1 W/m²K
- Continuous rooflight and SHEV single flap without thermal bridges

Safety through

- NEW: European Technical Approval (ETA)
- Construction tested and approved by all European building authorities
- Legally secure proof of placing on the market throughout Europe

Product advantages

- **JET-Composite profiles:** Innovative combination of materials for function and design
- **JET-Refurbishment technology:** Flexible construction – uses existing supporting structures
**SHEV FLAPS FOR JET-VARIO-THERM-S CONTINUOUS ROOFLIGHT SERIES**

<table>
<thead>
<tr>
<th>Inclination and sketch</th>
<th>30°/30°</th>
<th>45°/45°</th>
<th>30°/60°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flap type</td>
<td>Single EKS-TH</td>
<td>Single EKS-TH</td>
<td>Single EKS-TH</td>
</tr>
<tr>
<td>Opening angle</td>
<td>65°</td>
<td>65°</td>
<td>65°</td>
</tr>
<tr>
<td>Upper clear width of the kerb</td>
<td>from 230 to 500</td>
<td>from 180 to 500</td>
<td>from 260 to 560</td>
</tr>
<tr>
<td>Width of the flap (in cm)*</td>
<td>from 103 to 250</td>
<td>from 106 to 250</td>
<td>from 106 to 250</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of the flap (in cm)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
</tr>
<tr>
<td>( A_g ) (in ( m^2 ))</td>
</tr>
<tr>
<td>( A_a ) (in ( m^2 ))</td>
</tr>
</tbody>
</table>

* The flap size is dependent on the width of the continuous rooflight.

**JET-Composite profiles**

1. Innovative combination of materials for function and design
   Eave profile made of rigid PVC and aluminium border profile

Advantages of the JET-composite profiles in detail:
- High-quality and robust construction
- For secure and easy implementation of the roof sealing
- For prevention against fire flashover according DIN 18234

Advantages of the continuous rooflight construction:
- Type structural calculation according to Eurocode (DIN EN 1991-1-3 and DIN EN 1991-1-4)
- Additional transoms for areas with high wind and snow load or snow accumulation
- Displacement of loads caused by ground snow load of up to 12 kN
- Displacement of loads caused by gusting wind speed dynamic pressure up to 4.88 kN
- Variable design of angles possible

Advantages of rooflight accessories:
- High-quality plastic flap, thermally separated, without thermal bridges and heat insulated

![Sectional view of JET-VARIO-THERM-S saddle rooflight with EKS flap](image)
JET-Refurbishment technology

2. Flexible construction uses existing supporting structures

Advantages of the refurbishment technology in detail:
- High level of variance concerning dimensions, design and inclination angle
- High flexibility concerning existing structures by using kerb adapters
- Normally no structural support necessary
- Replicates e.g. existing wired glass saddle rooflights, in an ideal way
- Ideal for energy efficiency refurbishment
- Roof sealing revisable for later works

JET-Energy efficiency

3. Thermal decoupling and heat insulation of the eave area
   (Eave profile made of rigid PVC and aluminium border profile)
   - Multi-chamber insulation profile without thermal bridges

4. Thermal decoupling and heat insulation of the kerb head
   (Kerb connection profile made of rigid PVC supplementing the eave profile)
   - Multi-chamber insulation profile without thermal bridges
   - Highly insulating, effective kerb head covering
   - Lowers the Uw value of the continuous rooflight by up to 0.2 W/m²K

5. Enables a total heat transfer (Uw value) of 1.1 W/m²K
   - Ideal for projects with sustainability certification
   - Ideal for energy efficiency refurbishment

Isothermal performance for continuous rooflight with heat flow compared with conventional rooflight eave profiles

Perfect interaction: The heat insulating multi-chamber eave profiles and the kerb connection profiles achieve an ideal isothermal curve.
The risk of formation of condensate and mould is additionally reduced.

A low heat flow stands for less loss of heat
THE MOST IMPORTANT DESIGN VARIANTS

<table>
<thead>
<tr>
<th>Saddle rooflight 30°/30°</th>
<th>Saddle rooflight 45°/45°</th>
<th>Shed rooflight 30°/60°</th>
<th>Special saddle rooflight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat inclined saddle-type roof</td>
<td>Steep inclined saddle-type roof</td>
<td>Standard shed-type roof</td>
<td>Free choice of inclination (on request)</td>
</tr>
</tbody>
</table>

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Glazing</th>
<th>PC 16mm 7-skin</th>
<th>PC 25mm 5-skin</th>
<th>PC 32mm 5-skin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>opal</td>
<td>clear</td>
<td>opal</td>
</tr>
<tr>
<td>$U_g$ value of the glazing</td>
<td>1.8 W/m²K</td>
<td>1.4 W/m²K</td>
<td>1.2 W/m²K</td>
</tr>
<tr>
<td>$U_g$ value of the rooflight construction</td>
<td>1.8 W/m²K</td>
<td>1.4 W/m²K</td>
<td>1.2 W/m²K</td>
</tr>
<tr>
<td>$U_g$ value of the rooflight construction (with kerb)</td>
<td>1.6 W/m²K</td>
<td>1.4 W/m²K</td>
<td>1.2 W/m²K</td>
</tr>
<tr>
<td>$U_g$ value of the rooflight construction (with kerb + kerb connection profile)</td>
<td>1.5 W/m²K</td>
<td>1.2 W/m²K</td>
<td>1.1 W/m²K</td>
</tr>
<tr>
<td>Light transmission $T_L$</td>
<td>54%</td>
<td>64%</td>
<td>40%</td>
</tr>
<tr>
<td>$g$ value</td>
<td>57%</td>
<td>65%</td>
<td>42%</td>
</tr>
<tr>
<td>Sound insulation value ($R_w$)</td>
<td>21 db</td>
<td>21 db</td>
<td>18 db</td>
</tr>
</tbody>
</table>

Data is related to a saddle rooflight with an inclination of 30°/30° and the dimension 2 x 10 m without/with kerb of 50 cm height.