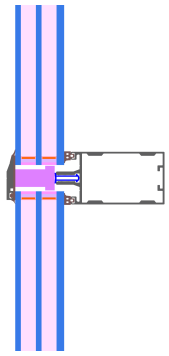
# Certificate

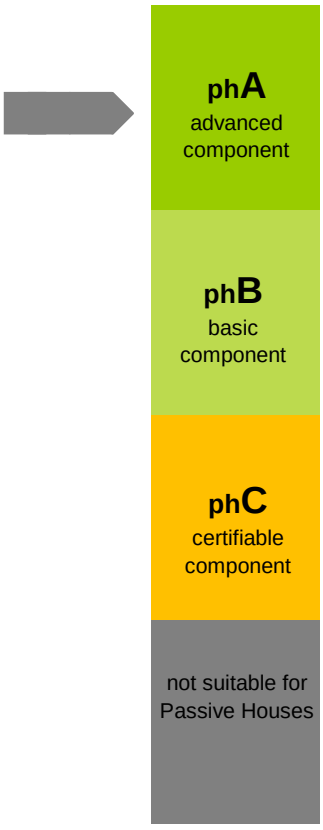
**Certified Passive House component**
for cool, temperate climate, valid until 31.12.2016

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Category: **Inclined Curtain Wall**
Manufacturer: **JET Brakel Aero GmbH**
**46562 Voerde, GERMANY**
Product name: **BA5/6 PH, Glasdach**



**Passive House Efficiency Class**




## The following comfort criteria were used in awarding this certificate:

Given a Ug value of 0.7 W/(m²K) and an element size of 1.23 m by 2.50 m,

$U_{CWi}$ = 0.82 W/(m²K) ≤ 1,00 W/(m²K)

Taking into account the installation based thermal bridges, and provided that the installation is, with regard to the thermal bridges, equal or better than shown in the data sheet, the facede meets the following criterion.

$U_{CWi,installed}$ ≤ 1.00 W/(m²K)

## Thermal data of the construction

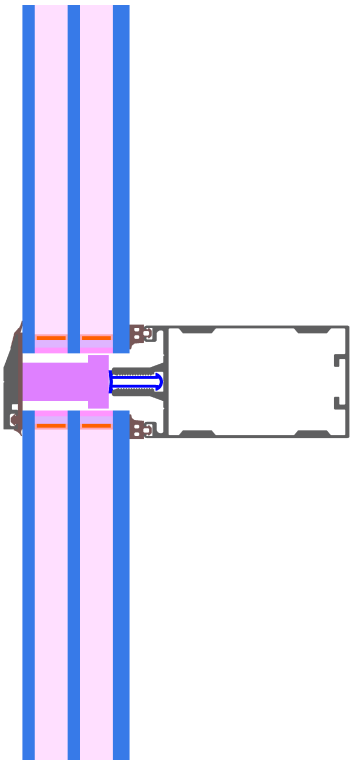
| | $U_f$-value [W/(m²K)] | Width [mm] | $\Psi_g$ [W/(mK)] | $f_{Rsi=0.25}$ [-] |
|---|---|---|---|---|
| Spacer | | | Swisspacer V* | |
| Transom (t) | 0.99 | 60 | 0.040 | 0.81 |
| Mullion (m) | 0.98 | 60 | 0.040 | |
| Thermal glass carrier bridge $\chi_{GT}$ [W/K]: | | | | 0.010 |

*Spacers of lower thermal quality, especially those made of aluminium, lead to significantly higher thermal losses and lower temperature factors.

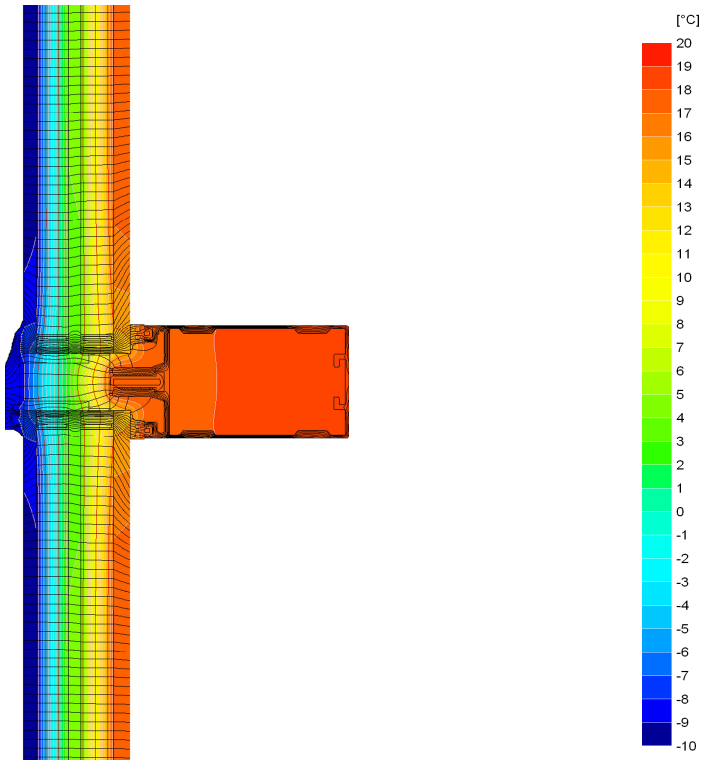
Further information see data sheet

# Data Sheet JET Brakel Aero GmbH, BA5/6 PH, Glasdach

**Manufacturer** JET Brakel Aero GmbH
46562 Voerde, GERMANY
Tel.: +49 (0)281 404-0
www.jet-gruppe.de



Bottom section




Isothermal

## Description

Aluminium construction with covering- and pressure-strip from aluminium. PE-foam and styrodur insulator in the glazing rebate. Screws themallly seperated by ABS. Used Pane: 52 mm (6/16/6/16/8), intersection of the Glass: 16 mm. Used spacer: Swisspacer V

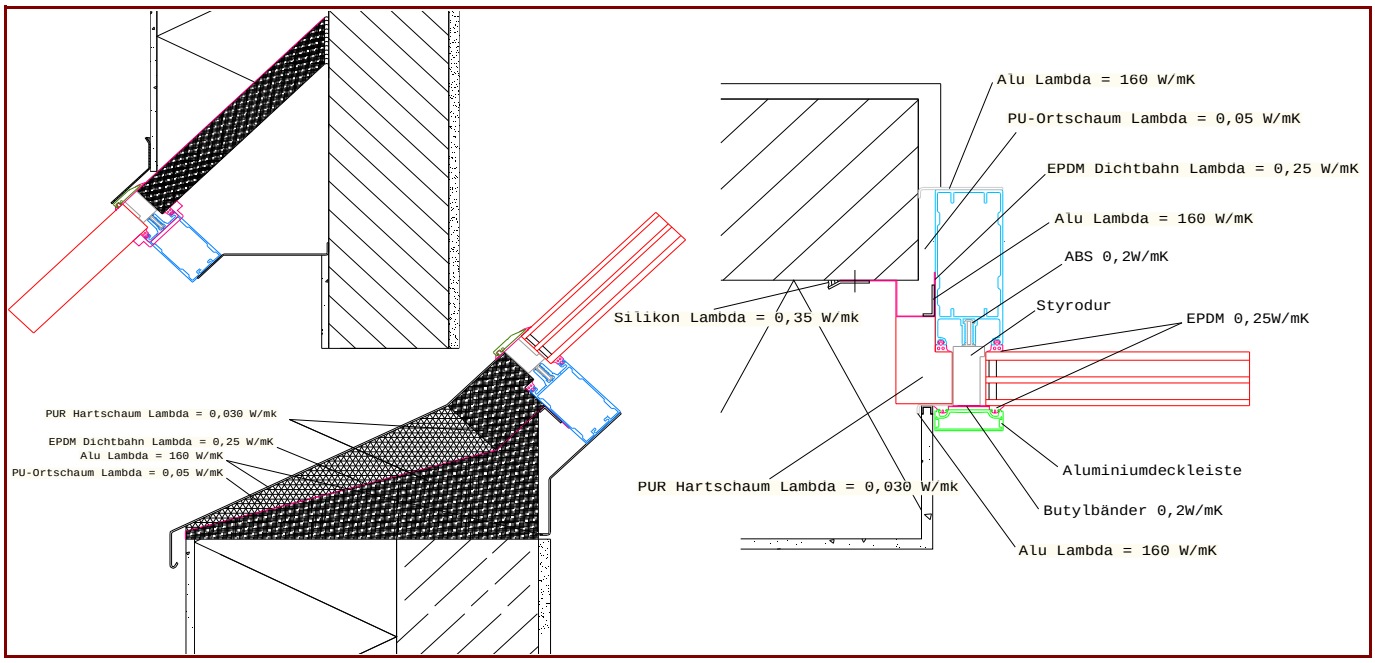
## Thermal data

| | $U_f$-value [W/(m²K)] | Width [mm] | $\Psi_g$ [W/(mK)] | $f_{Rsi=0.25}$ [-] |
|---|---|---|---|---|
| Spacer | | | Swisspacer V* | |
| Transom (t) | 0.99 | 60 | 0.040 | 0.81 |
| Mullion (m) | 0.98 | 60 | 0.040 | |
| - | | | | |
| - | | | | |
| Thermal glass carrier bridge $\chi_{GT}$ [W/K]: | | | | 0.010 |
| 1: Determined by 3D thermal flux simul. (PHI) | | | | |
| 2: Determined by 3D thermal flux. Simul. (PHI) | | | | |

* Spacers of lower thermal quality leading to higher thermal losses and lower temperatures.

# Data Sheet JET Brakel Aero GmbH, BA5/6 PH, Glasdach

## Installation




## Installation based thermal bridge $\Psi_{instal.}$ in Passive House suitable walls

| Position | | EIFS | | |
|---|---|---|---|---|
| **Bottom** | [W/(mK)] | 0.114 | | |
| **Side** | [W/(mK)] | -0.001 | | |
| **$U_{CW,instaled}$** | [W/(m²K)] | 0.87 | | |

## Explanatory notes

The facade-U-values were calculated based on a 1.20 m by 2.50 m element $U_g$ = 0.73 W/(m²K).
If an other glazing is used, the facade U-value changes as follow:

| | | | | |
|---|---|---|---|---|
| **U Glazing** | **$U_g$** [W/(m²K)] | 0.70 | 0.80 | 1.20 |
| **U Facade** | **$U_{CW}$** [W/(m²K)] | 0.82 | 0.91 | 1.28 |

Depending on the thermal losses through opaque elements, transparent components are categorised according to efficency classes. These thermal losses include the losses through the frame, multiplied by its width, the thermal bridge at the edge bond as well as the length of the edge bond.
Please ask the manufacturer for a detailed report containing all calculations and results.
For further information, please visit www.passivehouse.com or www.passipedia.org.