


Certificate

valid until 31.12.2019

 **Passivhaus
Institut**
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**Low Energy
Component:**

**Halfen Balcony Connection
HIT-HP ZVX & SP ZVX
240 mm slab thickness**

**Hersteller: HALFEN GmbH
Liebigstraße 14 40764 Langenfeld**

The following criteria were used in awarding this certificate:

Efficiency Criterion

In two typical applications^{*)}, the construction is

$$\Delta U_{WB} < 0.025 \text{ W/(m}^2\text{K)}$$

Comfort Criterion

The inner surface must be warm enough to prevent mould as well as uncomfortable down-draught and radiation losses.

$$\theta_{i,min} > 17.00 \text{ } ^\circ\text{C}$$

The following thermal data were determined:

HALFEN HIT ISO-Element	minimum temperature of the inner surface $\theta_{Si,min}$ [°C]	thermal bridge coefficient Ψ [W/(mK)]
HIT-HP ZVX-0404-24-100-35-06	18.37	0.20
HIT-HP ZVX-0804-24-100-35-08	18.29	0.21
HIT-SP ZVX-0302-24-100-35-08	18.85	0.11
HIT-SP ZVX-0404-24-100-35-06	18.68	0.14
HIT-SP ZVX-0804-24-100-35-08	18.62	0.16

^{*)} The criterion was validated on both, a row house and a apartment dwelling.

The certificate includes types with minor statical performance. The thermal bridge coefficient can be approximated by linear interpolation.

