


Certificate

valid until 31.12.2019

 **Passivhaus
Institut**
Dr. Wolfgang Feist
Rheinstraße 44/46
D-64283 Darmstadt

**Low Energy
Component:**

**Halfen Balcony Connection
HIT-HP MVX & SP MVX
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

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

Comfort Criterion

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

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

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 MVX-0404-24-100-35	18.25	0.22
HIT-HP MVX-0504-24-100-35	18.18	0.23
HIT-SP MVX-0504-24-100-35	18.45	0.17
HIT-SP MVX-0705-24-100-35	18.36	0.20
HIT-SP MVX-0804-24-100-35	18.48	0.18
HIT-SP MVX-0907-24-100-35	18.10	0.24
HIT-SP MVX-1006-24-100-35	18.21	0.23
HIT-SP MVX-1008-24-100-35	18.00	0.25
HIT-SP MVX-1107-24-100-35	18.05	0.25

^{*)} 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.

