

Certificate

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

valid until 31.12.2026

Balcony connection

Low Energy Component

HIT-SP ZVX
160 - 240 mm slab thickness

Manufacturer: **Leviat GmbH**
40764 Langenfeld, GERMANY

The following criteria were used in awarding this certificate:

Efficiency Criterion

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

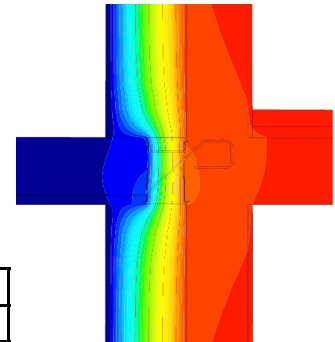
$$\Delta U_{WB} < 0.025 \quad \text{W/(m}^2\text{K)}$$

Comfort Criterion

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

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

Following heat transmission coefficients (Ψ [W/(mK)])
have been validated:



Isothermal map of
HIT-SP ZVX-0502-24-100-
30-06

Product	Slab thickness [mm]			
	160	180	220	240
HIT-SP ZVX-0202-hh ¹⁾ -100-30-08	-	-	-	0.109
HIT-SP ZVX-0302-hh ¹⁾ -100-30-06	-	-	-	0.108
HIT-SP ZVX-0502-hh ¹⁾ -100-30-06	-	-	0.109	0.109

¹⁾ hh - slab thickness [cm]

^{*)} The criterion was validated on both, a row house and a apartment dwelling
(according to criteria "balcony connection" v2.1.1)

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



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**Low Energy
Component:**

**Leviat Balcony Connection
HIT-HP ZVX & SP ZVX
180 mm slab thickness**

**Hersteller: Leviat 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:

Leviat HIT ISO-Element	minimum temperature of the inner surface $\theta_{Si,min} [^{\circ}\text{C}]$	thermal bridge coefficient $\Psi [\text{W}/(\text{mK})]$
HIT-HP ZVX-0404-18-100-35-06	18.45	0.18
HIT-HP ZVX-0804-18-100-35-08	18.34	0.20
HIT-SP ZVX-0302-18-100-35-08	18.87	0.11
HIT-SP ZVX-0404-18-100-35-06	18.71	0.14
HIT-SP ZVX-0804-18-100-35-08	18.62	0.15

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

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**Low Energy
Component:**

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

**Hersteller: Leviat 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:

Leviat HIT ISO-Element	minimum temperature of the inner surface $\theta_{Si,min} [^{\circ}\text{C}]$	thermal bridge coefficient $\Psi [\text{W}/(\text{mK})]$
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.

