

# Certificate

**Certified Passive House component**  
for cool-temperate climate, valid until 31.12.2025

Category: **Facade anchor**  
Manufacturer: **Hilti Deutschland AG**  
**86916 Kaufering**  
**GERMANY**  
Product name: **FOX - VTR**

**The following criteria were used in awarding this certificate:**

## Efficiency Criterion

In a typical application\*, the construction fulfills the requirements of

$$Eff_{fa} \leq 0.200 \text{ W/(kNK)}$$

## Comfort Criterion

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

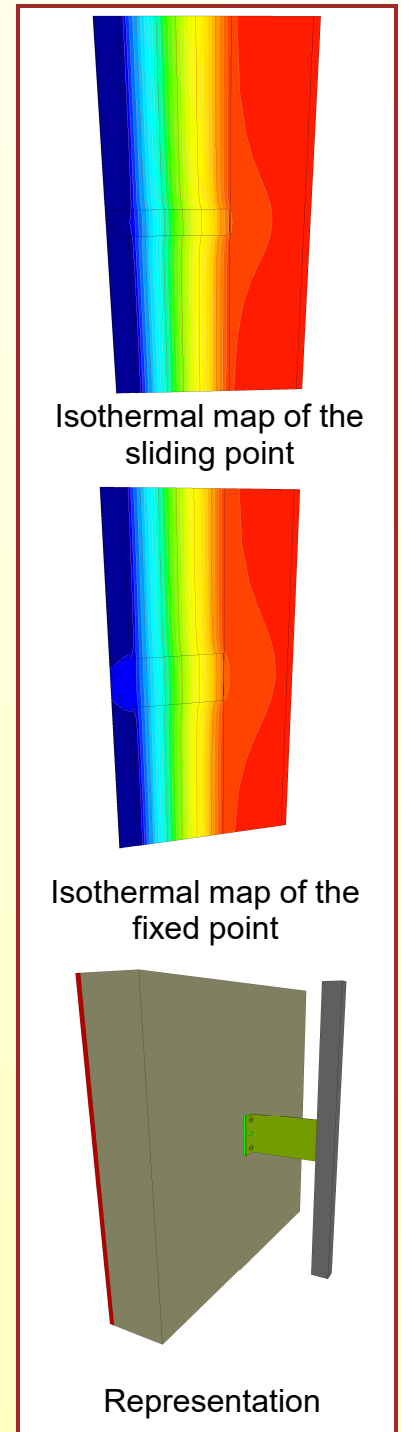
$$\theta_{i,min} \geq 17^{\circ}\text{C}$$

## Thermal data of the certified component

	Thermal bridge coefficient	Minimum interior surface temperature
	$\chi$ [W/K]	$\theta_{i,min}$ [°C]
Sliding point	0.0099	19.20
Sliding point & M-SP	0.0089	19.22
Fixed point	0.0189	19.09
Fixed point & M-FP	0.0172	19.11

\* The criterion has been validated with a representative facade of a school building

\*\* M-SP and M-FP with 6 mm PVC-thermal-seperator



cool, temperate climate



**CERTIFIED COMPONENT**

Passive House Institute

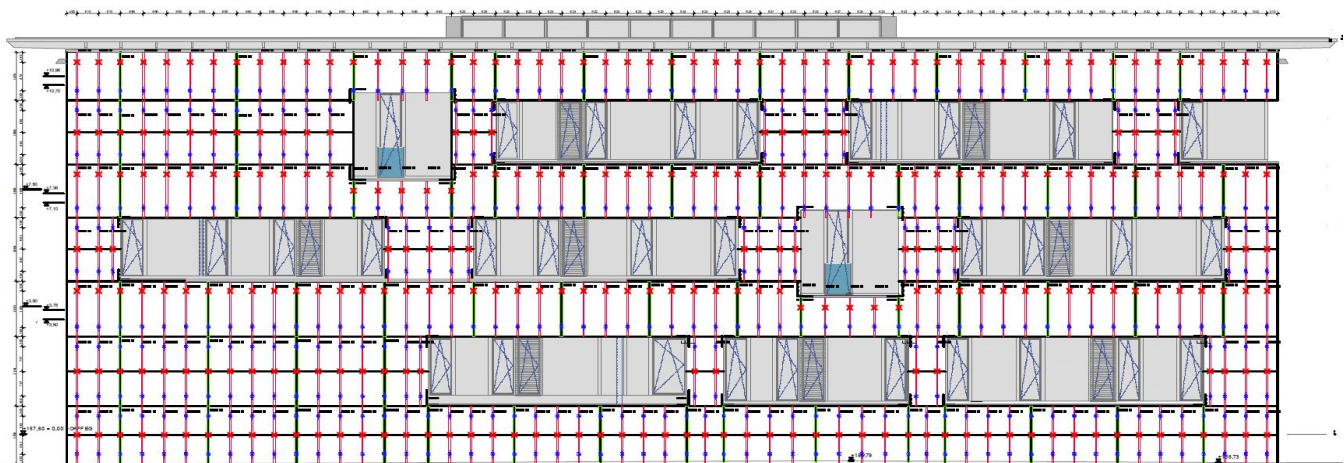
# Data sheet HILTI Deutschland AG, FOX - VTR

**Manufacturer** HILTI Deutschland AG  
 Hiltistraße 2, 86916 Kaufering  
 www.hilti.de

Criteria validated based on reference facade	$\Delta_U$ [W/m <sup>2</sup> K]	
	FOX VTR	with isolator
<b>LC I</b>	<b>0.021</b>	<b>0.019</b>
<b>LC II</b>	<b>0.026</b>	<b>0.024</b>
<b>LC III</b>	<b>0.033</b>	<b>0.030</b>

In order to validate the suitability, the manufacturer provides a static calculation and an associated installation plan for the reference facade.

Load class / Facade weight		Thermal bridge coefficients [W/K]	
LC	[kN/m <sup>2</sup> ]	X <sub>FP</sub>	X <sub>SP</sub>
<b>III</b>	<b>0.20</b>	<b>0.0172</b>	<b>0.0089</b>
Efficiency	$\Delta U$	Quantity / m <sup>2</sup>	
[W/(kNk)]	[W/m <sup>2</sup> K]	FP	SP
<b>0.1484</b>	<b>0.0297</b>	<b>1.00</b>	<b>1.40</b>



Installation-plan reference facade of the certified component

Load-class (LC)	Facade cladding	Facade weight [kN/m <sup>2</sup> ]	Efficiency criterion fulfilled?
<b>I</b>	ACM	0.10	yes
<b>II</b>	HPL	0.15	yes
<b>III</b>	Fibre-cement-plates	0.20	yes
<b>IV</b>	Fibre-cement-plates	0.25	not evaluated
<b>V</b>	Glassfacade	0.30	not evaluated
<b>VI</b>	Marble	0.60	not evaluated

The classification criteria and the load class allocation can be found in the current criteria "Zertifizierte Passivhaus Komponente – Fassadenanker, Version 2.0, 08.05.2017".