

Certificate

Certified Passive House component

for cool, temperate climate, valid until 31.12.2018

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Category: **Facade anchor**
Manufacturer: **thermomass**
50036 Boone, Iowa, USA
Product name: **MC45D MC**

The following criteria were used in awarding this certificate:

Efficiency Criterion

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

$$\text{Eff.}_{fa} \leq 0.200 \text{ W/(kNK)}$$

Comfort Criterion

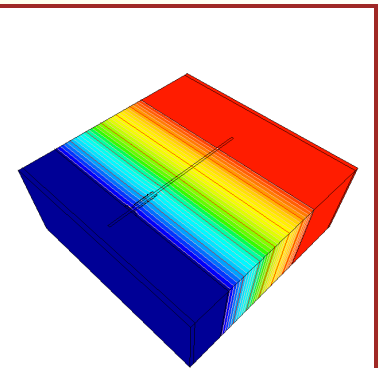
The inner surface must be warm enough to prevent mould as well as uncomfortable down-draught and radiation losses.

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

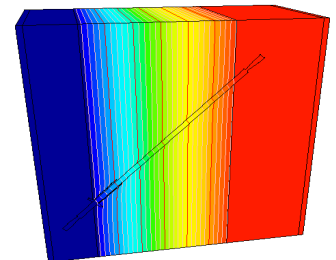
Thermal data of the certified component

MC45D MC	thermal bridge coefficient χ [W/K]	minimum inner surface temperature $\theta_{i,min}$ [°C]
Fixed point 0°	0.0001	19.48
Fixed point 45°	0.0001	19.48

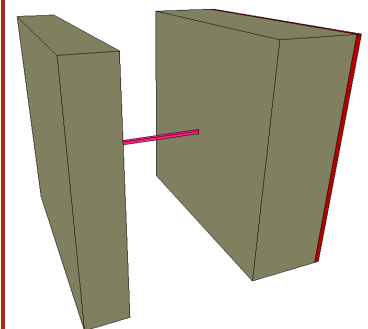
* The criterion has been validated with a representative facade of a school building



Isothermal map of the fixed point 0°



Isothermal map of the fixed point 45°



Representation of the fixed point

cool, temperate climate



CERTIFIED COMPONENT

Passive House Institute

Data sheet thermomass, MC45D MC

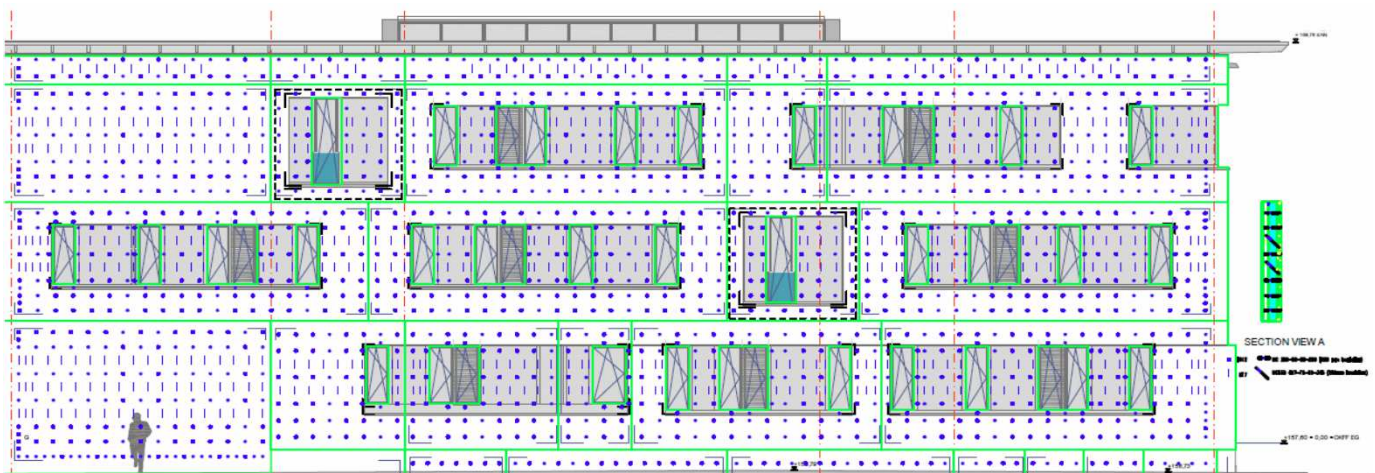
Manufacturer thermomass
 1000 Technology Drive, Boone, Iowa 50036
 +1 800 232 1748
 www.thermomass.com

Criteria validated based on reference facade	ΔU [W/m²K]
LC VI	0.0004

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

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".

Load class / Facade weight		Thermal bridge coefficients [W/K]			
-	[kN/m ²]	X _{FP1}	X _{FP2}	X _{SP1}	X _{SP2}
VI	1.60	0.0001	0.0001	-	-
[W/(kNK)]	[W/m ² K]	Quantity / m ²			
Efficiency	ΔU	FP1	FP2	SP1	SP2
0.0011	0.0004	0.88	3.80	-	-



Installation-plan reference facade of the certified component

Load-class	Facade cladding	Facade weight [kN/m ²]	Efficiency criterion fulfilled?
I	Aluminium laminated	0.10	not evaluated
II	Plastic	0.15	not evaluated
III	Fibre-cement plates	0.20	not evaluated
IV	Acrylic glass	0.25	not evaluated
V	Ceramics	0.30	not evaluated
VI	Concrete	1.60	yes