

CERTIFICATE

Certified Passive House Component

ID: 1354cs02 valid until 31. December 2019

Passive House Institute
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Catgory **Construction system | Solid construction with EIFS**
Manufacturer **Caparol Polska Sp. z. o. o.**
Warsaw
POLAND
Product name **ETICS Capatect Classic / Longlife / Carbon**
(cold climate zone)

This certificate for the cold climate zone was awarded based on the following criteria

Hygiene criterion

The minimum temperature factor of the interior surfaces is

$$f_{Rsi=0,25m^2K/W} \geq 0,75$$

Comfort criterion

The U-value of the installed windows is

$$U_{W,i} \leq 0,65 \text{ W}/(\text{m}^2\text{K})$$

Efficiency criteria

Heat transfer coefficient of building envelope

$$U \cdot f_{PHI} \leq 0,12 \text{ W}/(\text{m}^2\text{K})$$

Temperaturfactor of opaque junctions

$$f_{Rsi=0,25m^2K/W} \geq 0,88$$

Thermal bridge free design for key connection details

$$\Psi \leq 0,01 \text{ W}/(\text{m}^2\text{K})$$

An airtightness concept for all components and connection details was provided.



Opaque building envelop

With the "Capatect ETICS for Passive House Construction", the wintertime thermal insulation of buildings can be adjusted to the desired standard. "Capatect ETICS for Passive House Construction", in combination with a solid exterior wall, regulates humidity and temperature. This prevents overheating in summer if the planning principles according to PHPP are observed, and in winter heat is retained longer in the building. As investigated, the construction is deemed suitable for passive houses, as both the regular U-values of the exterior components are below 0.12 W/(m²K) and the connections meet the criteria of 'thermal bridge-free'. The surface temperatures of all connections (with the exception of window connections) meet the surface temperature requirements.

Windows

A typical baseline Passive House window ($U_w \approx 0.60$ W/(m²K) mit $U_g = 0.52$ W/(m²K) is installed in the system with the aid of an exterior mounting system (e.g. ISO TOP Winframer "Type 3" from ISO-Chemie GmbH). The overall U-value of the installed window of standard size (1.23m wide, 1.48m tall) can be increased by a maximum of 0.05 W/(m²K), i.e. U_w , insalled ≤ 0.65 W/(m²K).

Airtightness concept

Airtightness of the system is achieved in the following way: windows and doors are installed with permanently elastic, sealing materials. The interior of external wall surfaces are plastered over the entire surface, down to the unfinished floor and up to the unfinished ceiling. The interior of external walls for lightweight construction are covered over the entire surface with continuous airtight membranes. Windows should be connected to the wall with suitable airtight connection membranes or profiles.

Explanatory notes

The Passive House Institute has defined international component criteria for seven climate zones based on hygiene-, comfort- and affordability criteria. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. This use might make sense in certain circumstances.

Thermal bridge not calculated
Criteria achieved

Efficiency driteria not achieved
Hygiene- or comfortcriterion not achieved

