CERTIFICATE

Certified Passive House Component

ID: 1642rc03 valid until 31. December 2025

Passive House Institute
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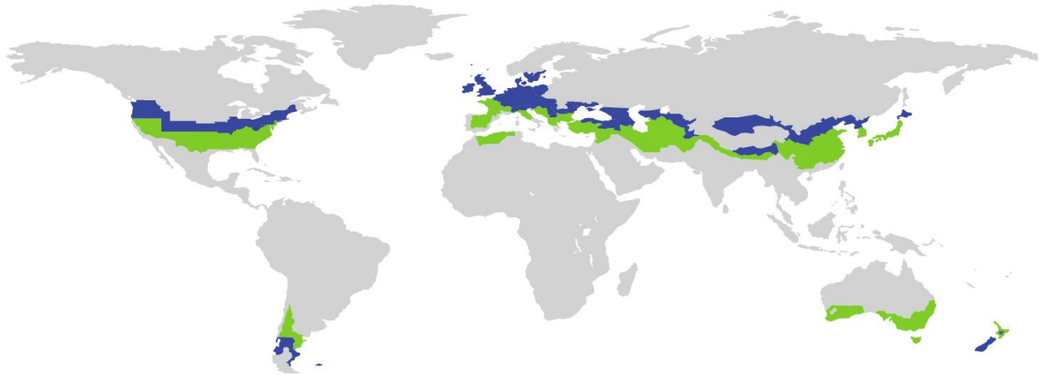

Category	**Roof system | Mixed construction**
Manufacturer	**BEMO Systems GmbH** **Ilshofen-Eckartshausen** **GERMANY**
Product name	**BEMO-Thermohalter Softdach**

This certificate for the cool, temperate climate zone was awarded based on the following criteria

Hygiene criterion

The minimum temperature factor of the interior surfaces is	$f_{Rsi=0,25m^2K/W} \geq$	**0,70**

Comfort criterion

The U-value of the installed skylight is	$U_{sk,i} \leq$	**1,10** W/(m²K)

Efficiency criteria

Heat transfer coefficient of building envelope	$U^*f_{PHI} \leq$	**0,15** W/(m²K)
Temperature factor of opaque junctions	$f_{Rsi=0,25m^2K/W} \geq$	**0,86**
Thermal bridge-free design for key connection details	$\Psi \leq$	**0,01** W/(mK)

An airtightness concept for all components and connection details was provided

cool, temperate climate

CERTIFIED COMPONENT
Passive House Institute

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Opaque building envelope

The BEMO soft roof system with a standing seam made of aluminum with thermal brackets made of fiberglass-reinforced plastic (0.30 W / mK, E-Rovings Sinorma) and mineral wool insulation and a supporting shell made of steel, provides both weather protection and the requirements for thermal insulation for passive house comfort. The calculations and connection details were carried out with an EIFS for the cool, temperate climate zone (<0.15 W / m²K). Punctual penetrations are determined by 3D-FEM simulation. The system was evaluated according to the criteria of the Passive House Institute for roof systems and is considered suitable for passive house projects in the cool-temperate and warm-temperate climate zone.

Windows

The analysis was carried out for a Lamilux skylight: an openable glass skylight (Usk = 0.97 W / m²K with Ug = 0.71 W / m²K) based on the dimensions 1.5 x 1.5 m. It is installed using an upstand. The calculations show that the installation situations are suitable for the cool, temperate climate zone, without the risk of surface condensation and mold formation.

Airtightness concept

The airtightness is achieved by the following procedure: Skylights with curbs are adapted airtight to the outer roof cladding. Inner surfaces made airtight by applying a vapor barrier to the profiled sheets (supporting shells). Components: BEMO DS 3, cold selfadhesive,fire-load-reduced vapor barrier membrane made of a reinforced aluminum composite film, accessible and penetration-proof, sd value:> 1,500 On rising components, run up to the upper edge of the insulation and fix mechanically if necessary. Absorbent substrates (connection areas) must be pretreated with a primer. Longitudinal seams are to be arranged on the top chord, transverse joints are to be underlaid.

Explanatory notes

The Passive House Institute has defined global component requirements for seven climate zones based on hygiene, comfort and economy criteria. In principle, components that are certified for climates with higher requirements can also be used in climates with lower requirements. This can also be economical in individual cases.

Thermal bridge not calculated
Criteria achieved
Efficieny criteria not achieved
Hygiene or comfort criterion not achieved