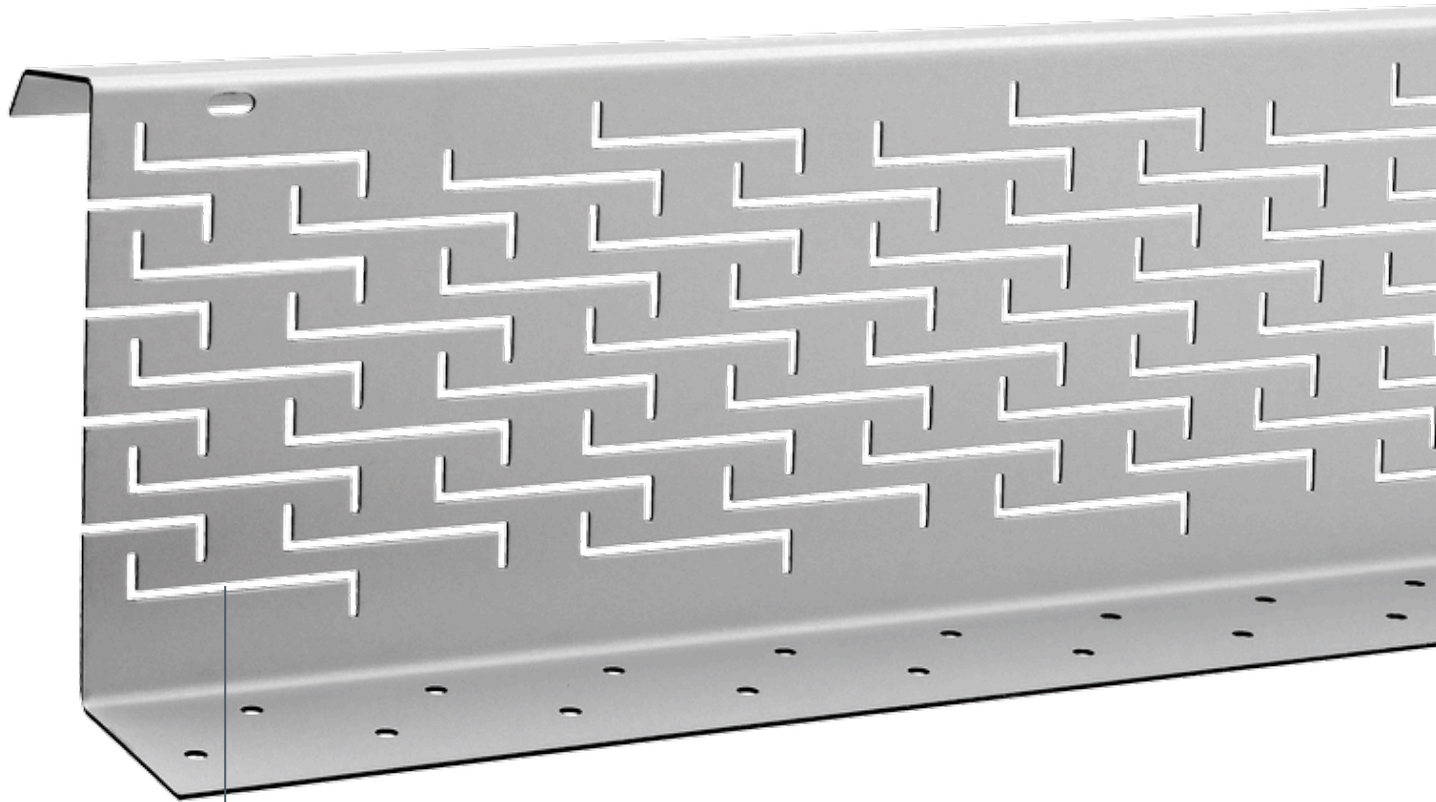


# Thermo-Z spacer profile



# The German Buildings Energy Act (GEG) at a glance.

It is impossible to build or renovate a warm roof today if you do not comply with the energy efficiency standards. During the planning stage, it is important to strike a balance between the legally required U-values and roof construction costs.



SPECIAL LONGITUDINAL SLOT PERFORATION

Reduced thermal bridge effect

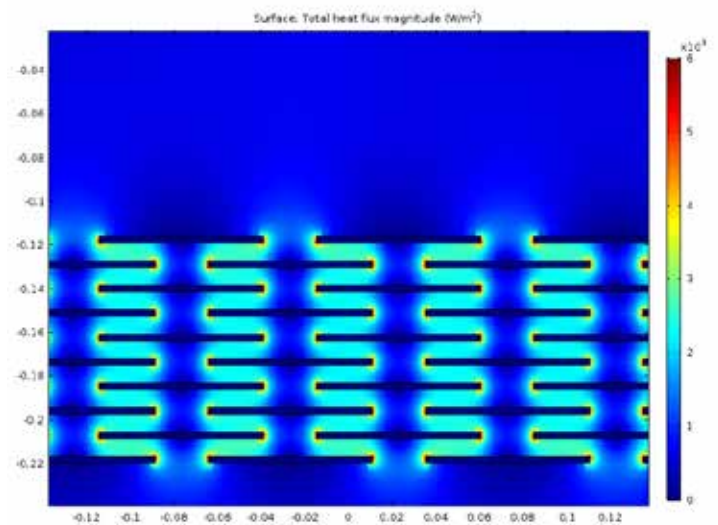


Fig. Thermal imaging simulation

The arrangement of the longitudinal slots redirects the heat flow. Due to this path delay the U-value improves significantly.



## Build-ups with the Thermo-Z spacer profile.

RIB-ROOF metal roof systems offer a wide variety of build-ups for warm and cold roofs. Trapezoidal profiles are often used as a supporting static substructure in the industrial construction due to their excellent cost-efficiency. Forschungsinstitut für Wärmeschutz e.V. Munich (FiW) has confirmed that outstanding U-values can be achieved with the newly developed Thermo-Z spacer profiles. Thus, we recommend using the innovative Thermo-Z spacer profile to combine economic efficiency and sustainability in the simplest way.



### **Low heat conduction & improved U-value.**

The heat flow is diverted through the longitudinal slots, significantly improving the U-value.



### **Lightweight design.**

The roof superstructures with the Thermo-Z spacer profiles correspond to the lightweight metal construction, similarly to the roof superstructures with standard Z-profiles.



### **Simple installation.**

Installation is completed in a few simple steps thanks to the pre-drilled holes and the supplied joint connectors.

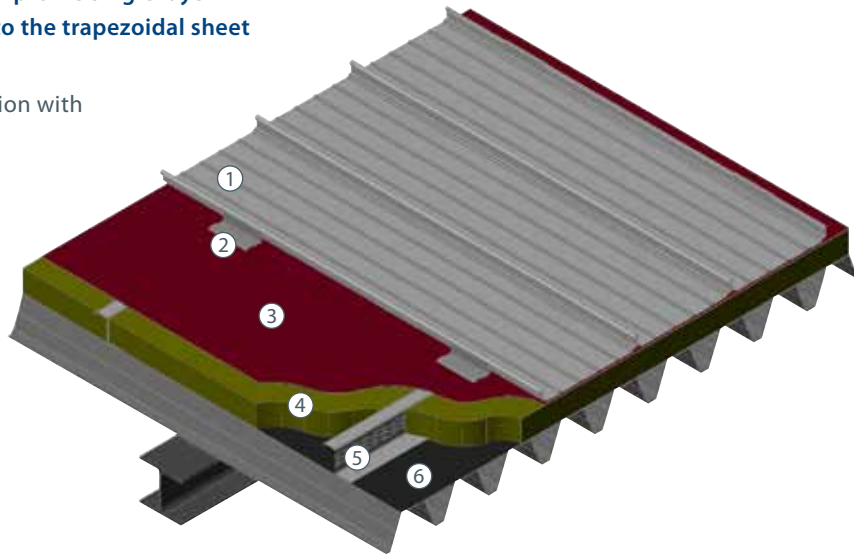
# Roof build-ups with the Thermo-Z spacer profile.

Roof build-ups with Thermo-Z spacer profiles can be used for both truss and purlin roofs. Depending on the requirements, the Thermo-Z spacer profiles are laid in a single layer at 90° or 45° to the trapezoidal sheet metal rafters. They are mainly used for warm roofs, but cold roofs with a free ventilation cross-section can also be executed.



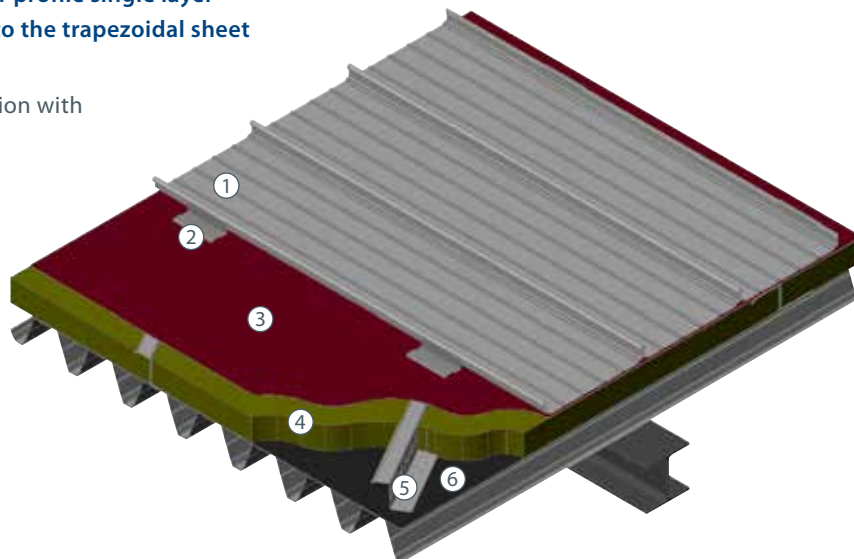
## Thermo-Z spacer profile single layer Installed at 90° to the trapezoidal sheet

Example:  
RIB-ROOF Evolution with  
directional clips



## Thermo-Z spacer profile single layer Installed at 45° to the trapezoidal sheet

Example:  
RIB-ROOF Evolution with  
directional clips



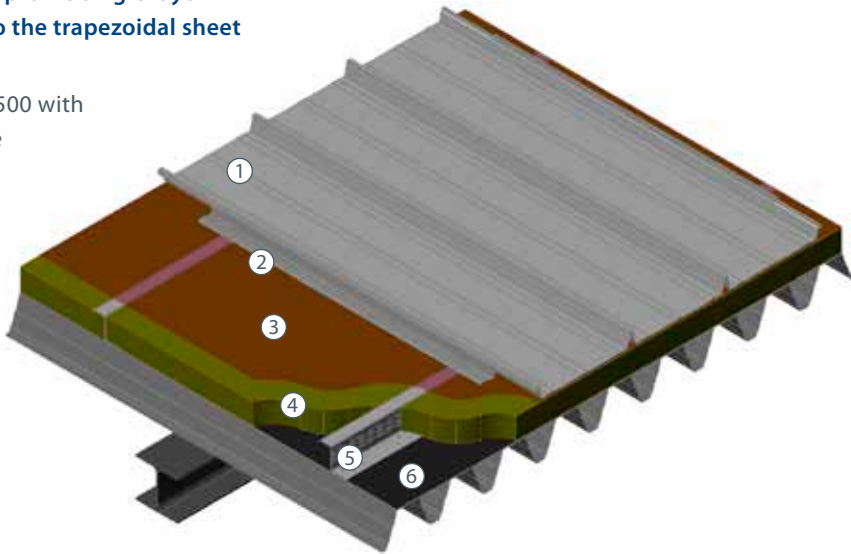
- ① RIB-ROOF Evolution
- ② Directional clip (optional: turned directional clip)
- ③ High diffusion protective sheet (optional)
- ④ Thermal insulation (compressed)
- ⑤ Thermo-Z spacer profile (single layer)
- ⑥ Vapour barrier membrane



Speed 500

**Thermo-Z spacer profile single layer  
Installed at 90° to the trapezoidal sheet**

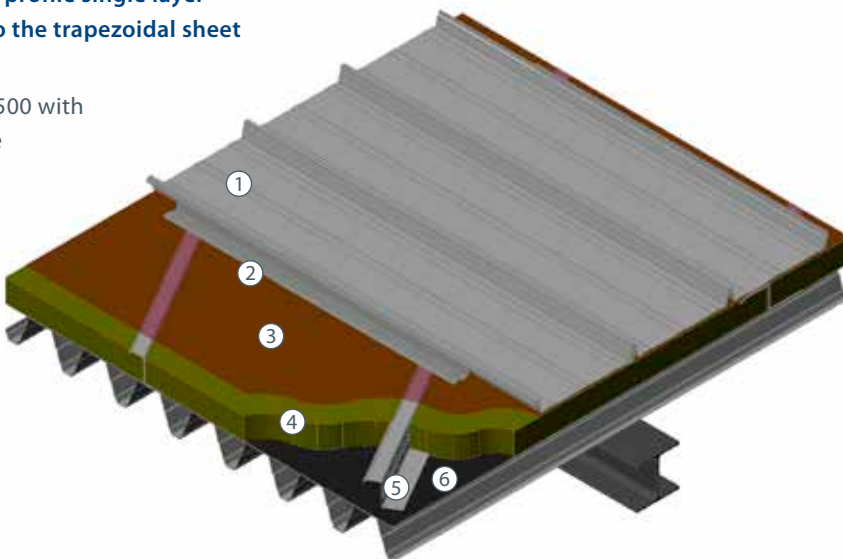
Example:  
RIB-ROOF Speed 500 with  
directional profile



Speed 500

**Thermo-Z spacer profile single layer  
Installed at 45° to the trapezoidal sheet**

Example:  
RIB-ROOF Speed 500 with  
directional profile



- ① RIB-ROOF Speed 500
- ② Directional clip (optional: turned directional clip)
- ③ High diffusion protective sheet (optional)
- ④ Thermal insulation (compressed)
- ⑤ Thermo-Z spacer profile (single layer)
- ⑥ Vapour barrier membrane

# Installation of Thermo-Z spacer profile.

In case of warm roof build-ups, the Thermo-Z spacer profile can be used on supporting structures (e.g. trapezoidal sheets or timber boarding) to reduce thermal bridges. The Thermo-Z spacer profile can also be installed as a spacer construction for ventilated roof structures with a free ventilation cross-section. The warm roof structure is shown below.



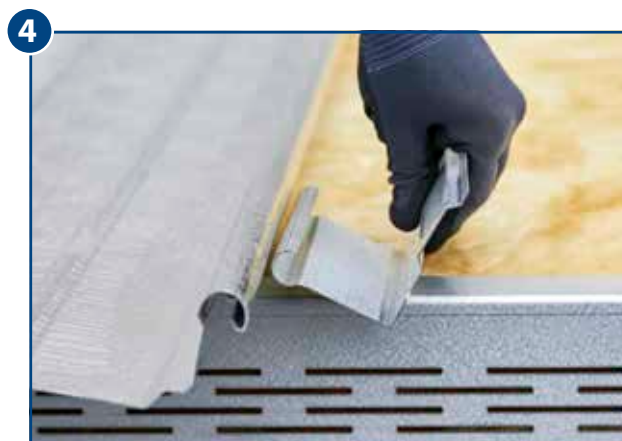
1 Fasten the Thermo-Z spacer profile offset to the top boom of the trapezoidal sheet, or alternatively with equal distances to another substructure.



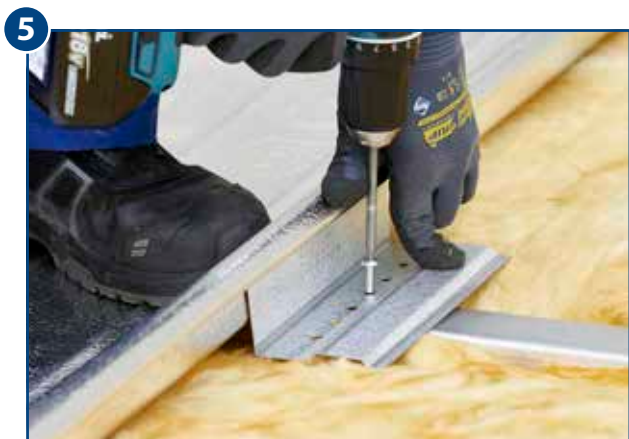
2 Fix the joint connector to both sides of the Thermo-Z spacer profile. Ensure there is an expansion joint of approx. 3-5 mm.



3 When laying the thermal insulation, ensure that the joints fit tightly. In case of installation without high diffusion protective sheet (optional), ensure there is sufficient compression of approx. 20-40 mm.



4 The installation of the profiled sheets on Thermo-Z spacer profiles can only be carried out with directional clips or directional profiles.



5 Position the directional clip centrally and screw it directly into the Thermo-Z spacer profile.



6 According to static requirements, at least two fastening screws must be used.

*Installation of Thermo-Z spacer profiles as a substructure during the construction of the Berching sports hall.*





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