



The insulation system under metal

Over-rafter insulation system

# **LINITHERM®**

PAL HWM



## **LINITHERM®**

## LINITHERM PAL HW – thermal insulation and seamless sub-structure in one working step

For steep roofs, LINITHERM PAL HW combines thermal insulation, protection against electrosmog and a seamless substructure for the roofing in a single element. Faced with an derived wood panel on one side, the elements are designed for use on old or new boarded roofs.

The polyurethane rigid foam insulation core provides maximum insulation with minimum panel thickness. Thanks to the robust edge joints, guick and efficient installation on the boarding – that has been covered with a suitable vapour barrier – is possible without thermal bridges. The 22 mm thick facing of derived wood is not susceptible to moisture, is hard-wearing and provides a seamless substructure for roofing with metal or shales. No time-consuming searching for the right attachment points is required. The roofing can be mechanically attached at any point. Roof sections are easily cut with standard woodworking tools. Similarly, any fittings can be attached without problems.

### By far the best

142

162

182

202

222

80

100

120

140

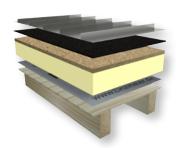
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22

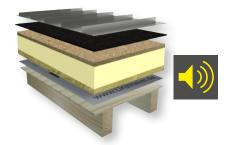
22

A suitable separating membrane is fitted over the LINITHERM PAL HW elements. It ensures fast, reliable drainage of condensate between the metal roof and the membrane. By the resulting distance also a reduction of structure-borne noise is achieved.

### The right insulation solution for every roof construction



Insulation solution for new and old buildings Over-rafter insulation LINITHERM PAL HW on wood boarding and visible rafters



Insulation solution for new and old buildings Over-rafter insulation LINITHERM PAL HWM with sound insulation board on wood boarding and visible rafters

#### LINITHERM PAL HW PH 210010 Insulation core PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1. coated with aluminum film on both sides Facing Covered with a 22 mm derived wood panel for attaching the slates or metal roofing Edge joints Tongue & groove pressfit joints on all sides, derived wood panel with T&G and 2 mm expansion joint Please note When building the sub-roof and the entire roof support structure, the specialist rules of the trade as well as the notes and guidelines in the separate Linzmeier leaflet must be observed. Overall dimension 2420 × 580 mm (= calculation measurement)

Thickness mm total	Thickness mm PU	Thickness mm derived wood panel	Quantity Piece	per pallet m²	λ <sub>D</sub> W/(mK)	U-value [W/(m²K)]
102	80	22	21	29.5	0.022	0.25
122	100	22	17	23.9	0.022	0.21
142	120	22	15	21.1	0.022	0.17
162	140	22	13	18.2	0.022	0.15
182	160	22	11	15.4	0.022	0.13

LINITHERM PAL HWM with soundproofing panel					PH 210010					
	Insulation of	ore	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides							
	Facing		Covered with a 22 mm derived wood panel for attaching the slates or metal roofing, lower side with a soundproofing panel, 40 mm							
	Edge joints		Tongue & groove pressfit joints on all sides, derived wood panel with T&G and 2 mm expansion joint							
Please note			When building the sub-roof and the entire roof support structure, the specialist rules of the trade as well as the notes and guidelines in the separate Linzmeier leaflet must be observed.							
	Overall dim	ension	2420 × 580 mm (= calculation measurement)							
	Thickness mm total	Thickness mm PU	Thickness mm	Thickness mm	Quantity per pa	allet m²	λ <sub>D</sub> PU	$\lambda_D$ sound insulation	U-value [W/(m²K)]	

40

40

40

40

15

13

11

10

21.1

15.4

14.0

12.6

0.022

0.022

0.022

0.022

0.022

0.039

0.039

0.039

0.039

0.039

0.20

0.17

0.15

0.13

0.12























10 years of system performance in case of using the LINITHERM accessory products in addition to our LINITHERM upon rafters insulation system (see Product overview).



Insulate with system

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