



Price list 1/2024

LINITHERM, LITEC, LINIREC Prices for retailers (not for end consumer) Valid from april 15th 2024 svster

Flat roof

External wall from outside



U-value-table - Comparison of insulation thickness

Please check which excellent insulation values can be achieved with LINITHERM. The U-value depends on the thickness of the insulation and the thermal conductivity level.

	LINITHERM PAL LINITHERM LOOP	LINITHERM PGV	Minera	al fibre	PS or min	eral fibre	PS or min	eral fibre	Wood	l fibre
Panel thickness	Thermal conductivity λ _D 0.022	Thermal conductivity < 80 mm λ_D 0.028 80-119 mm λ_D 0.026 ≥ 120 mm λ_D 0.025	Thermal co λ _D 0	onductivity .032	Thermal co λ _D 0	onductivity .035	Thermal co λ _D 0	onductivity .040	Thermal c λ _D 0	onductivity .045
	U-value* insulation	U-value* insulation	U-value* insulation	U-value** insulation between rafters	U-value* insulation	U-value** insulation between rafters	U-value* insulation	U-value** insulation between rafters	U-value* insulation	U-value** insulation between rafters
[mm]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]	[W/(m ² K)]
20	0.90	1.09	1.21	1.48	1.30	1.55	1.43	1.66	1.55	1.76
30	0.64	0.79	0.88	1.11	0.95	1.16	1.05	1.25	1.15	1.33
40	0.50	0.61	0.69	0.88	0.75	0.93	0.83	1.00	0.92	1.07
50	0.40	0.50	0.57	0.74	0.61	0.78	0.69	0.84	0.76	0.90
60	0.34	0.43	0.48	0.63	0.52	0.67	0.59	0.72	0.65	0.78
70	0.30	0.37	0.42	0.55	0.46	0.58	0.51	0.63	0.57	0.68
80	0.26	0.31	0.37	0.49	0.40	0.52	0.46	0.56	0.51	0.61
100	0.21	0.25	0.30	0.40	0.33	0.43	0.37	0.46	0.41	0.50
120	0.18	0.20	0.25	0.34	0.28	0.36	0.31	0.39	0.35	0.42
140	0.15	0.17	0.22	0.30	0.24	0.31	0.27	0.34	0.30	0.37
160	0.13	0.15	0.19	0.26	0.21	0.28	0.24	0.30	0.27	0.33
180	0.12	0.14	0.17	0.23	0.19	0.25	0.21	0.27	0.24	0.29
200	0.11	0.12	0.16	0.21	0.17	0.22	0.19	0.24	0.22	0.26
220	0.10	0.11	0.14	0.19	0.15	0.21	0.18	0.22	0.20	0.24
240	0.09	0.10	0.13	0.18	0.14	0.19	0.16	0.21	0.18	0.22
260			0.12	0.17	0.13	0.17	0.15	0.19	0.17	0.21
280			0.11	0.15	0.12	0.16	0.14	0.18	0.16	0.19
300			0.10	0.14	0.11	0.15	0.13	0.17	0.15	0.18
320			0.10	0.14	0.11	0.14	0.12	0.16	0.14	0.17
340			0.09	0.13	0.10	0.14	0.12	0.15	0.13	0.16
360			0.09	0.12	0.10	0.13	0.11	0.14	0.12	0.15
380			0.08	0.11	0.09	0.13	0.10	0.13	0.12	0.14

* Thermal conductivity coefficient U includes the thermal resistance ($R_{si} = 0.10 \text{ m}^2\text{K/W}$ and $R_{se} = 0.10 \text{ m}^3\text{K/W}$) in accordance with EN ISO 6946. ** U-value in case of an insulation between rafters with a rafter proportion of 13 %.

Pitched roof insulation	bio-based insulation system for old building/restoration for new building in fixed lengths up to 12 metres for better noise protection with plasterable, wallpaperable and paintable interior facing for vaulted roofs, dormers for metal roofing accessories	4 6 8 10 11 12 13 14 15	Pitched roof
Flat roof insulation	bio-based insulation system – NEW universal + accessories for lightweight industrial roofs + accessories – NE gradient insulation ridge turret terrace insulation	20 20 W24 26 28 29	Flat roof
External wall insulation from the outside	external wall insulation from the outside	30	External wall from outside
Interior insulation	interior insulation systemsaccessories	32 33	Interior
External wall insulation from the inside	external wall insulation from the inside accessories external wall insulation from the inside – NEW accessories	34 35 36 37	External wall from inside
Floor insulation Attic floor insulation	insulation system of floors insulation system for attic floors accessories	38 39 39	Floor Attic floor
Ceiling insulation	insulation system for underground garages accessories ecological surface coating accessories ceiling insulation accessories	40 41 42 43 44 45	Ceiling
LITEC building system	dormer building system, dormer renovation board sky light installation frame parapet element restoration bar accessories LITEC flat roof board	d 46 47 48 49 50 51	LITEC building system
LINIREC construction board	LINIREC construction board	52 55	LINIREC

Bio-based insulation system for new buildings & restoration





Battens LINITHERM LOOP over-rafter insulation system LINITHERM LOOP L+D Rafters Insulation between rafters Roomsided covering

Roofing



Insulation core	PU rigid foam wit coated with alum	PU rigid foam with biomass content acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides						
Edge joints	Tongue & groove plus additional to	ongue & groove pressfit joints on all sides, Jus additional tongue & groove on the long sides with 6 cm overlap						
Please note	Joint sealing tape	1060 × 40 mm f	or sealing the short side	es is always included in de	elivery			
Overall dimension	2420 × 1000 mm	n (= calculation m	easurement)					
Thickness mm	Quantity	ner nallet	15					
PU	Piece	m ²	мл W/(mK)	[W/(m ² K)]	€/m²			
PU 100	Piece 24	58.1	W/(mK) 0.022	[W/(m ² K)]	€/m² 36.30			
PU 100 120	Piece 24 20	58.1 48.4	0.022 0.022	[W/(m²K)] 0.21 0.18	€/m² 36.30 42.20			
PU 100 120 140	24 20 17	58.1 48.4 41.1	0.022 0.022 0.022 0.022	[W/(m²K)] 0.21 0.18 0.15	€/m ² 36.30 42.20 48.00			

LINITHERM PAL N+F and LINITHERM LOOP PAL N+F now in the highest hail resistance class 5

Produkt gelistet im



During storms, there is often not only storm damage on the building facade, but also increasing hail damage with water ingress and damage to the building.

With the pitched roof insulation systems LINITHERM PAL N+F and LINITHERM LOOP PAL N+F, the highest hail resistance class 5 is achieved.

You can contact your specialist advisor for more information.



Bio-based insulation system for new buildings & restoration

Over-rafter insulation system



Battens LINITHERM LOOP over-rafter insulation system LINITHERM LOOP L+D Rafters Insulation between rafters Roomsided covering

Roofing



LINITHERM LOOP PA	L 2U				PH 22000020			
Insulation core	PU rigid foam with biomass content acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides							
Facing	Upper side coated with a diffusible, tear-resistant and slip-resistant membrane, approx. 8 cm overlap lengthwise and transverse, plus integrated factory made sealing band							
Edge joints	Tongue & groove	pressfit joints on	all sides					
Overall dimension	2420 × 1180 mm	(= calculation m	easurement)					
Thickness mm PU	Quantity p Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²			
80	30	85.7	0.022	0.26	31.10			
100	24	68.5	0.022	0.21	36.90			
120	20	57.1	0.022	0.18	42.90			
160	15	42.8	0.022	0.13	53.50			



LI	NITHERM LOOP L+C)				PH	22009030
		PP-vapour barri Polypropylene r resistance – 30	er and airtightne nonwoven, fire b °C to +80 °C , le	ess membrane f ehavior class E engthwise overl	or roof, ceiling and v acc. to EN 13501-1, lapping on both side	vall constructions, s _d -value 2 m, temperat s, with acrylate-adhesiv	ure e tape
adjusteri adjusteri		Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ	€/UQ
A BRE		1.5	50	75	24 rolls	m ²	3.10

LINITHERM LOOP PAL N+F is highly efficient, sustainable, healthy for living and protects the climate:

DGNB Navigator

- ✓ Thin insulation with best insulation value
- Lowest thermal conductivity of all bio-based insulation materials
- ✓ Suitable for promotion due to best U-values
- Ecologically healthy and free from harmful substances
- ✓ Safety in all construction types
- ✓ Recycable aluminium covering
- ✓ Durable (over 50 years), safe and without moisture absorption
- Can be laid on both sides, with little waste
- Highest hail resistance class 5
- ✓ Around 60% biomass
- ✓ CO₂-neutral production





Pitched roof insulation systems for old buildings/restoration

Over-rafter insulation system with roomsided covering

Roofing Battens LINITHERM over-rafter insulation system LINITHERM L+D Pro Rafters

Roomsided covering





Battens LINITHERM over-rafter insulation system LINITHERM L+D Pro

Roofing

Rafters Insulation between rafters

Roomsided covering



LINITHERM PAL N+F					PH 21000000					
Insulation core	PU rigid foam acc coated with alum	U rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, pated with aluminum film on both sides								
Edge joints	Tongue & groove plus additional to	ongue & groove pressfit joints on all sides, aus additional tongue & groove on the long sides with 6 cm overlap								
Please note	Joint sealing tape	1060 × 40 mm f	or sealing the short side	es is always included in de	elivery					
Overall dimension	2420 × 1000 mm	n (= calculation m	easurement)							
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²					
*80	30	72.6	0.022	0.26	27.70					
100	24	58.1	0.022	0.21	33.00					
120	20	48.4	0.022	0.18	38.40					
140	17	41.1	0.022	0.15	43.60					
160	15	36.3	0.022	0.13	48.20					
*180	13	31.5	0.022	0.12	52.60					
*200	12	29.0	0.022	0.11	56.80					
*240	10	24.2	0.022	0.09	65.70					



LINITHERM PAL 2U					PH 21000020				
Insulation core	PU rigid foam ac coated with alur	J rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, bated with aluminum film on both sides							
Facing	Upper side coate approx. 8 cm ov	pper side coated with a diffusible, tear-resistant and slip-resistant membrane, pprox. 8 cm overlap lengthwise and transverse, plus integrated factory made sealing band							
Edge joints	Tongue & groove	e pressfit joints on	all sides						
Overall dimension	2420 × 1180 mr	m (= calculation m	easurement)						
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²				
80	30	85.7	0.022	0.26	28.30				
100	24	68.5	0.022	0.21	33.50				
120	20	57.1	0.022	0.18	39.00				
140	17	48.5	0.022	0.15	44.20				

0.022

0.022 0.022

0.022

0.13

0.12

0.11

0.09

48.60

53.10 57.20

66.40

42.8

37.1 34.3

28.6

5

LINITHERM PAL 2U Plus PH 21000025								
Insulation core	PU rigid foam acc coated with alumi	יບ rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides						
Facing	Upper side coated coating, approx. 1 (Alternatively, the (page 17) or hot	Jpper side coated with a diffusible, tear-resistant and slip-resistant membrane, with both sided TPU coating, approx. 10 cm overlap lenghtwise and transverse, plus integrated factory made sealing band. Alternatively, the joint area can be welded to one another with LINITHERM solvent-welding equipment page 17 or bot air.						
Edge joints	Tongue & groove	pressfit joints or	n all sides					
Overall dimension	2420 × 1180 mm (= calculation measurement)							
Thickness mm PU	Quantity p Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²			

FU	Fiece		VV/(IIIK)		
*80	30	85.7	0.022	0.26	30.60
100	24	68.5	0.022	0.21	36.00
120	20	57.1	0.022	0.18	41.50
140	17	48.5	0.022	0.15	46.60
160	15	42.8	0.022	0.13	51.40
*180	13	37.1	0.022	0.12	55.90
*200	12	34.3	0.022	0.11	60.00
*240	10	28.6	0.022	0.09	69.20

Rainproof/waterproof subroof possible (with additional measures).

15

13

12

10

160

*180

*240

*200

 Other thicknesses upon request.

 1) Roof pitch according to Linzmeier manufacturer recommendation.

 Might have longer delivery times.

 ** U-value, taking the thermal transfer resistance R_{si} = 0.1 [m²K/W] and R_{se} = 0.1 [m²K/W] acc. to EN ISO 6946 into account.

Pitched roof insulation systems for old buildings/restoration





LINITHERM PGV T					PH 21000050				
Insulation core	PU rigid foam ac coated with mine	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with mineral fleece on both sides							
Facing	Upper side coate approx. 8 cm tra	Upper side coated with a diffusible, tear-resistant and slip-resistant membrane, approx. 8 cm transverse and lengthwise overlap plus integrated factory-made sealing band							
Edge joints	Tongue & groove	Tongue & groove pressfit joints on all sides							
Overall dimension	2420 × 1180 mr	2420 × 1180 mm (= calculation measurement)							
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²				
50	48	137.1	0.028	0.50	24.50				
60	40	114.2	0.028	0.43	26.90				
80	30	85.7	0.026	0.31	29.00				
100	24	68.5	0.026	0.25	32.90				
120	20	57.1	0.025	0.20	37.30				
140	17	48.5	0.025	0.17	41.70				
160	15	42.8	0.025	0.15	46.10				
*180	13	37.1	0.025	0.14	50.50				
*200	12	34.3	0.025	0.12	54.40				

LITEC restoration b	ar Fix Pi
Insulation core	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, thickness 60 mm, coated with aluminum film on both sides
Facing	Outside three-layered spruce wood panel, thickness 22 mm
Application	For over-insulating of the airtight connection at verge and eaves. The spruce triple-layer board can be painted, glazed, leaded or cladded with slate.





- Other thicknesses upon request.

 1) Roof pitch according to Linzmeier manufacturer recommendation.

 * Might have longer delivery times.

 * U-value, taking the thermal transfer resistance R_{si} = 0.1 [m²K/W] and R_{se} = 0.1 [m²K/W] acc. to EN ISO 6946 into account.

Pitched roof insulation systems for new buildings





Over-rafter insulation system with roomsided covering



Battens LINITHERM over-rafter insulation system

LINITHERM L+D Pro

Rafters

Roomsided covering



LINITHERM PAL N+F					PH 21000000					
Insulation core	PU rigid foam acc coated with alum	יບ rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides								
Edge joints	Tongue & groove plus additional to	angue & groove pressfit joints on all sides, aus additional tongue & groove on the long sides with 6 cm overlap								
Please note	Joint sealing tape	oint sealing tape 1060 \times 40 mm for sealing the short sides is always included in delivery								
Overall dimension	2420 × 1000 mm (= calculation measurement)									
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²					
*80	30	72.6	0.022	0.26	27.70					
100	24	58.1	0.022	0.21	33.00					
120	20	48.4	0.022	0.18	38.40					
140	17	41.1	0.022	0.15	43.60					
160	15	36.3	0.022	0.13	48.20					
*180	13	31.5	0.022	0.12	52.60					
*200	12	29.0	0.022	0.11	56.80					
*240	10	24.2	0.022	0.09	65 70					



LINITHERM PAL 20					PH 21000020		
Insulation core	PU rigid foam ac coated with alun	U rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, .oated with aluminum film on both sides					
Facing	Upper side coate approx. 8 cm ove	d with a diffusible erlap lengthwise a	e, tear-resistant and slip- nd transverse, plus integ	resistant membrane, grated factory made seali	ng band		
Edge joints	Tongue & groove	pressfit joints on	all sides				
Overall dimension	2420 × 1180 mr	n (= calculation m	easurement)				
Thickness man	Quantitu	n av nallat	1-	Ll volue **	Elmo?		
PU	Piece	m ²	^D W/(mK)	[W/(m ² K)]	€/m-		
80	30	85.7	0.022	0.26	28.30		
100	24	68.5	0.022	0.21	33.50		
120	20	57.1	0.022	0.18	39.00		
140	17	48.5	0.022	0.15	44.20		
160	15	42.8	0.022	0.13	48.60		
*180	13	37.1	0.022	0.12	53.10		
*200	12	34.3	0.022	0.11	57.20		
*240	10	28.6	0.022	0.09	66.40		

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LINITHERM PAL 2U F	INITHERM PAL 2U Plus PH 21000025					
Insulation core	PU rigid foam ac coated with alum	- 20 rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides				
Facing	Upper side coate coating, approx. (Alternatively, the (page 17) or hot	Upper side coated with a diffusible, tear-resistant and slip-resistant membrane, with both sided TPU coating, approx. 10 cm overlap lenghtwise and transverse, plus integrated factory made sealing band. (Alternatively, the joint area can be welded to one another with LINITHERM solvent-welding equipment (page 17) or hot air.)				
Edge joints	Tongue & groove	pressfit joints on	all sides			
Overall dimension	2420 × 1180 mm (= calculation measurement)					
	A				e ()	
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²	
*80	30	85.7	0.022	0.26	30.60	

PU	Piece	m-	VV/(MK)	[vv/(m²K)]	
*80	30	85.7	0.022	0.26	30.60
100	24	68.5	0.022	0.21	36.00
120	20	57.1	0.022	0.18	41.50
140	17	48.5	0.022	0.15	46.60
160	15	42.8	0.022	0.13	51.40
*180	13	37.1	0.022	0.12	55.90
*200	12	34.3	0.022	0.11	60.00
*240	10	28.6	0.022	0.09	69.20

Rainproof/waterproof subroof possible (with additional measures).

- Other thicknesses upon request.

 1) Roof pitch according to Linzmeier manufacturer recommendation.

 * Might have longer delivery times.

 * U-value, taking the thermal transfer resistance R_{si} = 0.1 [m²K/W] and R_{se} = 0.1 [m²K/W] acc. to EN ISO 6946 into account.

Pitched roof

Over-rafter insulation system with insulation between rafters



Roofing Battens

LINITHERM PGV T LINITHERM L+D Pro Rafters Insulation between rafters LINITHERM L+D Pro Roomsided covering



LINITHERM PGV T					PH 21000050		
Insulation core	PU rigid foam a coated with mir	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with mineral fleece on both sides					
Facing	Upper side coate approx. 8 cm tra	ed with a diffusible insverse and length	, tear-resistant and slip wise overlap plus integ	-resistant membrane, grated factory-made sealir	ng band		
Edge joints	Tongue & groov	e pressfit joints on	all sides				
Overall dimension	2420 × 1180 m	m (= calculation me	easurement)				
Thickness mm PU	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²		
50	48	137.1	0.028	0.50	24.50		
60	40	114.2	0.028	0.43	26.90		
80	30	85.7	0.026	0.31	29.00		
100	24	68.5	0.026	0.25	32.90		
120	20	57.1	0.025	0.20	37.30		
140	17	48.5	0.025	0.17	41.70		
160	15	42.8	0.025	0.15	46.10		
*180	13	37.1	0.025	0.14	50.50		
*200	12	34.3	0.025	0.12	54.40		

THE HEALTHIER ROOF

EXEMPLARY HEALTHIER BUILDING. SUSTAINABLE HEALTHIER LIVING.

The healthier roof

Our »All in One: Healthier Roof« guarantees that all components - from the roof structure with its internal planking to the substructure, the airtightness, the insulation materials and nail sealing tapes and all the way to the counter-battens and fixing material - are strictly inspected and certified.

LINITHERM manufactures trend-setting products that offer superior technical values and are simple to install - in other words: the perfect recommendation for ensuring a feeling of relaxed well-being in insulated, for healthier living built homes. Innovative, health-checked and responsible.



Completely natural and healthy roofs

Four roof structures have been tested by the SGS Institut Fresenius.

To benefit from the advantages of certification, architects, developers or installers must use all of the building materials listed in the sample structures. In addition to products from the LINITHERM system, this includes the planking, additional insulating materials, adhesives, etc. specified in the component description. The insulation thickness may vary depending on requirements and builders' preferences.

 Other thicknesses upon request.

 1) Roof pitch according to Linzmeier manufacturer recommendation.

 * Might have longer delivery times.

 ** U-value, taking the thermal transfer resistance R_{si} = 0.1 [m²K/W] and R_{se} = 0.1 [m²K/W] acc. to EN ISO 6946 into account.

Pitched roof insulation systems for new buildings

Over-rafter insulation system with roomsided covering



-	Roofing
_	Battens
_	LINITHERM over-rafter insulation system PAL XXL
_	LINITHERM L+D Pro
-	Rafters
_	Roomsided covering



Roofing Battens LINITHERM over-rafter insulation system PGV XXL LINITHERM L+D Pro Rafters Insulation between rafters LINITHERM L+D Pro Roomsided covering



LINITHERM PAL XXL			PH 21000080			
Insulation core	PU rigid foam acc. to EN 131 coated with aluminum film o	65, fire behavior class E acc. t n both sides	to EN 13501-1,			
Facing	Upper side coated with a diffusible, tear-resistant and slip-resistant membrane with both-sided TPU coating, approx. 10 cm overlap lengthwise, plus integrated factory-made sealing band; (Alternatively, the joint area can be welded to one another with LINITHERM solvent-welding equipment (page 17) or hot air.)					
Edge joints	Lenghtwise with tongue & gr	oove pressfit joints, transvers	e with edgeless cut			
Fixed length	From 6.00 to max. 12.00 m (From 6.00 to max. 12.00 m (minimum 6 elements per fixed length)				
Width	1180 mm					
Thickness mm total	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²			
120	0.022	0.18	upon request			
160	0.022	0.13	upon request			

Please note delivery times due to property-related manufacturing.



LINITHERM PGV XXL			PH 21000085			
Insulation core	PU rigid foam acc. to EN 1316 coated with mineral fleece on					
Facing	Jpper side coated with a diffusible, tear-resistant and slip-resistant membrane with both-sided TPU coating, approx. 10 cm overlap lengthwise, plus integrated factory-made sealing band; (Alternatively, the joint area can be welded to one another with LINITHERM solvent-welding equipment (page 17) or hot air.)					
Edge joints	Lenghtwise with tongue & gro	ove pressfit joints, transver	se with edgeless cut			
Fixed length	From 6.00 to max. 12.00 m (m	ninimum 6 elements per fixe	ed length)			
Width	1180 mm					
Thickness mm total	λ _D W/(mK)	U-value* [W/(m ² K)]	€/m²			
160	0.025	0.15	upon request			
180	0.025	0.14	upon request			

Please note delivery times due to property-related manufacturing.

Lifting support

4 pieces

Unit of quantity UQ	€/UQ
piece	20.00

Advantages

- Much more in less time: the extra large size of insulation board allows a very quick installation
- Minimizes joints during installation
- Allows safe insulation of large roof areas
- Ideal for low slope or plane roofs
- Ideal for single or double pitch roofs
- Custom-made insulation boards from 6.00 m to max. 12.00 m



Over-rafter insulation system

Other thicknesses upon request. 1) Roof pitch according to Linzmeier manufacturer recommendation. * U-value, taking the thermal transfer resistance $R_{sl} = 0.1$ [m⁺K/W] and $R_{se} = 0.1$ [m⁺K/W] acc. to EN ISO 6946 into account.

Pitched roof insulation systems for external noise protection

Over-rafter insulation system for improved sound insulation with visible rafters



Roofing Battens LINITHERM over-rafter insulation system LINITHERM L+D Pro Rafters



LINITHERM PAL 2UM with soundproofing panel PH 210					
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	Jpper side covered with a diffusible, tear-resistant, non-slip sarking membrane, approx. 8 cm overlap lenghtwise and transverse, plus integrated factory-made sealing band, lower side with a poise protection board. 40 mm to improve sound insulation characteristics.				
Edge joints	Tongue & groove pressfit joints on all sides				
Please note	For improved sound insulation the use of double threaded screws is necessary (see test report)				
Overall dimension	2420 × 1180 mm (= calculation measurement)				
Thickness Thickness m mm total PU	m Thickness mm Quantity per pallet کې کې sound U-value sound insulation Piece m² PU insulation IW/(m²k	* €/m²)]			

57.1 48.5

42.8

37.1

0.022 0.022

0.022

0.022

0.039 0.039

0.039

0.039

0.21 0.17

0.15

0.13

47.50 54.40

61.00

67.70

Other thicknesses upon request.

80 100

120

140

40 40

40

40

20 17

15

13

120 140

160

180



Other thicknesses upon request. 1) Roof pitch according to Linzmeier manufacturer recommendation. • U-value, taking the thermal transfer resistance $R_{\rm M} = 0.1$ [m⁺K/W] and $R_{\rm ge} = 0.1$ [m⁺K/W] acc. to EN ISO 6946 into account.

Pitched roof insulation systems with plasterable, wallpaperable and paintable interior facing

Pitched roof



LINITHERM PAL SIL T with

additional insulation

Roofing Battens

> LINITHERM over-rafter insulation system LINITHERM PAL SIL T

Rafters

LINITHERM PAL SIL T with additional insulation



Roofing Brick / metal roof Battens LINITHERM over-rafter insulation system

LINITHERM PAL SIL T

Rafters



LINITHERM PAL SI	INITHERM PAL SIL T with T-Membrane PH 21001000						
Insulation core	PU rigid foam coated with a	U rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, oated with aluminum film on both sides					
Facing	Upper side co transverse, pl (not burnable	Upper side coated with tear- and slip-resistant membrane, approx. 8 cm overlap lengthwise and transverse, plus integrated factory made sealing band. Inner side with 6 mm thick silicate board (not burnable, resistant to moisture, can be painted, or wallpapered).					
Edge joints	Tongue & gro	Tongue & groove pressfit joints on all sides, silicate board with drywall edge					
Overall dimension	2480 × 1180	2480 × 1180 mm (= calculation measurement)					
Thickness mm total	Thickness mm PU	Thickness mm silicate board	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²
66	60	6	36	105.35	0.022	0.34	51.50

Can be combined with insulation systems on page 6 to 9 and page 11.

LINITHERM PAL SIL T with additional insulation

			l	J-value* [W/(m²K)]
Thickness of overall contruction (mm)	Thickness PAL SIL T (λ _D 0.022) (mm)	Thickness of additional insulation (mm)	PAL N+F PAL 2U PAL 2U Plus (λ _D 0.022)	PAL 2UM (λ _D 0.022 + 0.039)	PGV T (λ_D 0.028) (λ_D 0.026) (λ_D 0.025)
116	66	50	-	-	0.23
126	66	60	-	-	0.21
146	66	80	0.16	-	0.18
156	66	90	-	-	-
166	66	100	0.14	-	0.16
186	66	120	0.13	0.14	0.14
206	66	140	0.11	0.12	0.12
226	66	160	0.10	0.11	0.11
246	66	180	0.10	0.10	0.10
266	66	200	0.09	-	0.10





 Other thicknesses upon request.

 1) Roof pitch according to Linzmeier manufacturer recommendation.

 \bullet U-value, taking the thermal transfer resistance $R_{sl} = 0.1$ [m⁺K/W] and $R_{se} = 0.1$ [m⁺K/W] acc. to EN ISO 6946 into account.

LINITHERM PGV Flex for vaulted roofs with visible rafters



- Roofing Structured separating layer Wooden boarding Underlay LINITHERM PGV Flex
- LINITHERM L+D Pro
- Rafters

160

(11)



LINITHERM PGV Flex				P	H 21001080		
Insulation core	PU rigid foam acc coated with mine insulation elemen	rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, ated with mineral fleece on both sides, ulation elements slotted on both sides					
Edge joints	Round about edg	jeless cut					
Please note	When building th well as the notes	When building the sub-roof and the entire roof support structure, the specialist rules of the trade well as the notes and guidelines in the separate Linzmeier leaflet must be observed.					
Overall dimension	2440 × 1200 mm	n (= calculation me	asurement)				
Thickness mm total	Quantity p Piece	per pallet m²	λ _D W/(mK)	U-value [W/(m²K)]	€/m²		
60	40	117.1	0.028		28.10		
80	30	87.8	0.026		32.90		
120 (60 + 60)				0.23			
140 (60 + 80)				0.20			
160 (80 + 80)				0.17			



Pitched roof insulation systems for metal and slate coverings

Pitched roof





LINITHERM PAL HWM for metal roofs with visible rafters



Roofing Structured separating layer

LINITHERM PAL HWM

- LINITHERM L+D Pro
- Planking Rafters

(12)



LINITHERM PAL HW	PH 21001060					
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						
Please note When building the sub-roof and the entire roof support structure, the specialist rules of the trad well as the notes and guidelines in the separate Linzmeier leaflet must be observed.						
Overall dimension	2420 × 580 mm (= calculation measurement)					
Thiskness Thisknes	remen Thiskness men Overstitu ner nellet) Uvelue 6/m²					

Thickness mm total	Thickness mm PU	Thickness mm derived wood panel	Quantity Piece	/ per pallet m²	λ _D W/(mK)	U-value [W/(m²K)]	€/m²
122	100	22	17	23.9	0.022	0.21	59.60
142	120	22	15	21.1	0.022	0.17	61.60
162	140	22	13	18.2	0.022	0.15	64.40
182	160	22	11	15.4	0.022	0.13	67.00



LINITHERN	1 PAL HWM	with soundproo	ting panel					PH 21	001060
Insulation of	ore	PU rigid foam acc coated with alum	rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, ated with aluminum film on both sides						
Facing		Covered with a 22 lower side with a	vered with a 22 mm derived wood panel for attaching the slates or metal roofing, ver side with a soundproofing panel, 40 mm						
Edge joints		Tongue & groove	pressfit joints on	all sides, derived	wood p	anel wit	h T&G and I	2 mm expansi	on joint
Please note	2	When building th well as the notes	e sub-roof and th and guidelines in	ne entire roof supp the separate Linz	oort stru meier le	ucture, th eaflet mu	ne specialist ust be obser	rules of the t ved.	rade as
Overall dim	Il dimension 2420 × 580 mm (= calculation measurement)								
Thickness mm total	Thickness mm PU	Thickness mm derived wood panel	Thickness mm sound insulation	Quantity per pa Piece	allet m²	λ _D PU	λ_{D} sound insulation	U-value [W/(m²K)]	€/m²

mm total	mm PU	derived wood panel	sound insulation	Piece	m²	PU	insulation	[W/(m²K)]	
142	80	22	40	15	21.1	0.022	0.039	0.20	69.00
162	100	22	40	13	18.2	0.022	0.039	0.17	72.00
182	120	22	40	11	15.4	0.022	0.039	0.15	73.90
202	140	22	40	10	14.0	0.022	0.039	0.13	76.70
222	160	22	40	9	12.6	0.022	0.039	0.12	79.40



Airthightness



LINITHERM L+D Pro					PH 2	21009030
	PP-vapour barri Polypropylene r s _d -value 2 m, te with acrylate-ac	er and airtightne nonwoven, alum emperature resis dhesive tape	ess membrane f inized polyprop tance – 30 °C to	or roof, ceiling and v ylene, fire behavior o o +80 °C , lengthwis	wall constructions, class E acc. to EN 13501 se overlapping on both s	-1, sides
	Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ	€/UQ
	15	50	75	24 rolls	m ²	3 10



ITHERM LOOP L+I	D				PH 2	22009030
	PP-vapour barri Polypropylene r resistance – 30	er and airtightne ionwoven, fire be °C to +80 °C , le	ss membrane fe ehavior class E engthwise overl	or roof, ceiling and v acc. to EN 13501-1, apping on both side	vall constructions, s _d -value 2 m, temperati s, with acrylate-adhesive	ure e tape
	Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ	€/UQ

75

24 rolls

m²

3.10

50

1.5



LINITHERM L+D adhesive tape	PH 2	21009030		
For LINITHERM L+D Pro and LI	NITHERM LOOP	L+D		
Width mm	Size roll	Quantity per package	Unit of quantity UQ	€/UQ
60	25	10 rolls	lm	1.70

	LINITHERM Dichtfix				PH 2	21009030
		LINITHERM Dick and vapour bra with water for	ntfix is a high performance adh kes with hard surfaces – witho use as a primer	esive binder, which p ut using a pressure la	ermanently glues vapou th. LINITHERM Dichtfix o	ir barriers can be mixed
Dichtift Schulerbergel		Size	Consumption with an 8 mm thick bead	Package Content	Unit of quantity UQ	€/UQ
	Cartouche	310 ml	approx. 8 lm	12 cartouches	piece	9.40
	Tubular bag	600 ml	approx. 16 lm	12 tubular bags	piece	13.40
_						



LINITHERM sealing apron PH 21009030								
	Tear-resistant, elastic polymer foil, with mineral fleece on both sides, incl. compriband 3 × 15 mm							
	Width mm	Size roll Im	Quantity per package	Unit of quantity UQ	€/UQ			
	200	10	5 rolls	lm	4.50			
	400	10	5 rolls	lm	7.00			



LINITHERM compriband PH 21009030								
For sealing the gap between masonry and insulation, compress to about 30% when installed impregnated, and one side self-adhesive								
Original thickness × selfadhesive width mm	For joints up to mm	Pre-compressed delivery format mm	Size roll m	Quantity per package Im	Unit of quantity UQ	€/UQ		
20 × 15	3-7	4 × 15	6.0	120.0	lm	2.80		
40 × 20	7-12	8 × 20	5.0	75.0	lm	5.40		
60 × 30	10-18	12 × 30	5.0	50.0	lm	10.40		

Pitched roof insulation systems – accessories

Sealing

LINITHERM 1K-PU-pistol foam PH 21009000							
	LINITHERM filling and sealing for	am, inci. recycling	tee				
	Consumption for approx. 10 mm joint width	Size Content	Quantity per package	Unit of quantity UQ	€/UQ		
	Approx. 10–12 lm	Can 750 ml	12 cans	piece	9.30		



зопи саретот спит	\mathbf{H}		FII 2	1005000						
Application recommendation	For pitched roof insulat For sealing the short sic	or pitched roof insulation system $\textcircled{1}$								
Quantity required	1 piece per element	piece per element								
	Width mm	Lenght mm	Size bundle	Unit of quantity UQ	€/UQ					
	40	1060	5	piece	2.10					

U 2100000



Adhesive tape BK				PH 2	1009020			
Application recommendation	For pitched roof insulation system $\textcircled{1}$ $\textcircled{3}$ Butyl rubber, 1 mm thick, for sealing coves, ridges, etc.							
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ			
	200	10	5 rolls	lm	7.30			
	300	10	2 rolls	lm	12.30			



T-Adhesive tape				PH 2	1009020			
Application recommendation	For pitched roof insulat Polyacrylate adhesive ta	For pitched roof insulation system 2456789 Polyacrylate adhesive tape						
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ			
	200	25	4 rolls	lm	4.20			

Sealing



INITHERM U Plus membrane PH 21009020						1009020
Application recommendation	Diffusible mem fire behavior cl resistance agai	ibrane with TPU ass E acc. to EN nst water penet	coating on bot 13501-1, temp ration W1	h sides for warm weld berature resistance – 30	ing and solvent welding,) °C to +80 °C,	
	Width m	Length m	Size roll m ²	Quantity per pallet	Unit of quantity UQ	€/UQ
	1.5	50	75	20 rolls	m²	10.20



LINITHERM UD-cov	er stripe			PH 2	21009020			
Application recommendation	For pitched roof insula Diffussible welding stri welding on premium u temperature resistance	For pitched roof insulation system (5) (2) (8) Diffussible welding strip with TPU coating for warm welding and solvent welding on premium underlay membrane, fire behavior class E acc. to EN 13501-1, temperature resistance – 40 °C to + 80 °C, resistance against water penetration W1						
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ			
	300	25	5 rolls	lm	4.70			



LINITHERM solvent	welding agent			PH 2	21009020		
Application recommendation	For pitched roof insulation syst Solvent-welding agent (THF) fr premium underlay sheet. The Consumption: approx. 5–10 g Use only in case of dry underg	ystem (5)(7)(8) and U Plus membrane/ UD- cover stripes) for welding of the LINITHERM UD-cover stripe with the LINITHERM le solvent-welding agent is applied by a bottle with brush. J g/lm. erground and at temperatures above 5 °C.					
		Size Content	Quantity per package	Unit of quantity UQ	€/UQ		
		Can 1,25 l	6 cans	piece	44.60		

LINITHERM bottle wi	PH 2	1009020	
Application	For application of the LINITHERM solvent welding agent with brush		
		Unit of quantity UQ	€/UQ
		piece	38.60



Connection tube for	or insulation DG	PH	21009040		
Application recommendation	For rainproof, wind- and air-tight penetration of pitched roofs with over-rafter insulation. The specially angled bottom section with a flexible hose connection permits trouble-free installation in the space between rafters. For roof vent diameters Ø 100 mm, 125 mm, 150 mm.				
		Unit of quantity UQ	€/UQ		
		ninco	144 40		

Attachment



Application

With technical approval, recommendation

for fixing the counter-battens (40 × 60 or 40 × 80 mm) and the LINITHERM PU insulating elements, continuously at an angle of 67°

Quanitity required

Quanitity required Approx. 1.5–2.5 p	ieces per m ²			
Structural height	Ø × Length mm	Size Content	Unit of quantity UQ	€/UQ
Insulation 50 mm*	8.0 × 180	50 pieces/package	piece	1.05
Insulation 80 mm*	8.0 × 200	50 pieces / package	piece	1.10
Insulation 80/100 + boarding 19 mm*	8.0 × 225	50 pieces/package	piece	1.20
Insulation 120 + boarding 19 mm*	8.0 × 250	50 pieces/package	piece	1.40
Insulation 140 + boarding 19 mm*	8.0 × 275	50 pieces/package	piece	1.50
Insulation 160 + boarding 19 mm*	8.0 × 300	50 pieces/package	piece	1.60
Insulation 180 + boarding 19 mm*	8.0 × 325	50 pieces/package	piece	1.70
Insulation 200 + boarding 19 mm*	8.0 × 350	50 pieces/package	piece	1.80
Insulation 220 + boarding 19 mm*	8.0 × 375	50 pieces/package	piece	2.10

50 pieces / package

PH 21009010

2.20

piece

Insulation 240 + boarding 19 mm* 8.0×400

* Rafter spacing ≤ 0.75 m; snow load 0.65 kN/m²; weigth of covering 0.55 kN/m².

Every package includes 1 free bit; 1 free screw template is included per delivery.

	LINIELY dual thread a	
	LINIFIX dual-thread s	crews PH 2 10090 IC
1 1 1 1	Application recommendation	For pitched roof insulation system $\textcircled{9}$ With technical approval, for fixing the counter-battens (40 × 60 or 40 × 80 mm) and the LINITHERM PU insulating elements
	Quanitity required	Approx. 2.5 pieces per m ²

Structural height **	Ø × Length mm	Size Content	Unit of quantity UO	€/UQ
Insulation 80 mm	8.0 × 225	50 pieces/package	piece	2.50
Insulation 100 mm	8.0 × 235	50 pieces/package	piece	2.60
Insulation 120 mm	8.0 × 255	50 pieces/package	piece	2.80
Insulation 140 mm	8.0 × 275	50 pieces/package	piece	3.00
Insulation 160 mm	8.0 × 302	50 pieces/package	piece	3.10
Insulation 180 mm	8.0 × 335	50 pieces/package	piece	3.40
Insulation 200 mm	8.0 × 365	50 pieces/package	piece	4.30
Insulation 220 mm	8.0 × 397	50 pieces/package	piece	6.10

** Length of the screws by installation on 19 mm boarding

Note the special statics for PAL 2UM elements with soundproofing panel.

	LINIFIX IngBau screws						
	Application recommendation	For pitched roof insulation system (2)					
	Quanitity required	Approx. 5 pieces per m ²					
	Structural height ***	Ø × Length mm	Size Content	Unit of quantity UQ	€/UQ		
	102/122 mm	8.0 × 220	50 pieces/package	piece	1.40		

	mm	Content	UQ				
102/122 mm	8.0 × 220	50 pieces/package	piece	1.40			
142 mm	8.0 × 240	50 pieces/package	piece	1.50			
162 mm	8.0 × 260	50 pieces/package	piece	1.60			
182 mm	8.0 × 280	50 pieces/package	piece	1.70			
202 mm	8.0 × 300	50 pieces/package	piece	1.80			
222 mm	8.0 × 320	50 pieces/package	piece	2.00			
*** Lenght of the screws by installation on 24 mm boarding.							

Sealing



Nail sealing tape PP				PH 2	1009020
Application	Polypropylene, for p	ermanent sealing of nai	l or screw penetrations	below the counter batte	n.
Thickness mm	Width mm	Size roll m	Packages Content	Unit of quantity UQ	€/UQ
3	60	30	10 rolls	lm	1.00



Nail sealing tape BK				PH 2	1009020
Application	Butyl rubber, for per	manent sealing of nail o	r screw penetrations be	elow the counter batten.	
Thickness mm	Width mm	Size roll m	Packages Content	Unit of quantity UQ	€/UQ
3	50	15	6 rolls	lm	1.90



W	

Others



Roof window insulating frame



LINITHERM DDZ Velux roof window insulating frame PH 21009040							
Insulation core	LINIREC construction board, raw density approx. 550 kg/m ³ , fire behavior class E acc. to EN 1350' rated value of thermal conductivity λ_D 0.083 W/(mK), can be used in temperature range of – 50 °C +100 °C, moisture resistant, no mould formation, does not rot					13501-1, •50 °C to	
Please note	Use only for Velux	Use only for Velux roof windows					
Thickness Thicknes mm Counter roof ba batten	ss mm Width mm atten total	Width mm batten covering	Width mm Roof window covering	Length mm	Unit of quantity UQ	€/UQ	
40 30	110	50	60	2440	lm	29.50	
40 40	110	50	60	2440	lm	30.60	
80 30	110	50	60	2440	lm	43.10	
80 40	110	50	60	2440	lm	46.20	

Other thicknesses upon request.

Accessories for roof window insulating frame



Klebeband BK				PH 2	21009020
Application recommendation	Butyl rubber, 1 mm thio	ck, for sealing coves,	ridges, etc.		
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ
	200	10	5 rolls	lm	7.30
	200	10	2 rolls	Im	12 20





Bio-based flat roof insulation and terrace insulation

Flat roof insulation LINITHERM for green roof



Green roof

Sealing membrane LINITHERM LOOP flat roof insulation Vapour barrier Concrete ceiling Flat roof insulation LINITHERM for gravel roof on wooden construction



Gravel
Sealing membrane

- LINITHERM LOOP flat roof insulation
- Vapour barrier
- Wooden construction



LINITHERM LOOP PA	AL					< 80 mm PH 2	2400000		
Insulation core	PU rigid foar coated with	PU rigid foam with biomass content acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides, low-glare on one side							
Edge joints	Thickness 30 Thickness 80	Thickness 30–60 mm: round about edgeless cut Thickness 80–160 mm: round about rebated joint							
Overall dimension	1200 × 600	mm (= calculati	on measurem	nent) (coverage	with rebated joir	nt is 2 cm smaller)			
Thickness mm total	Quantity p Piece	oer package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²		
30	16	11.52	160	115.2	0.022	0.64	12.10		
50	10	7.20	100	72.0	0.022	0.40	15.80		
60	8	5.67	80	56.7	0.022	0.34	18.40		
						≥ 80 mm PH 2	2500000		
80	6	4.32	60	43.2	0.022	0.26	22.60		
100	5	3.60	50	36.0	0.022	0.21	26.40		
120	4	2.88	40	28.8	0.022	0.18	31.40		
160	3	2.16	30	21.6	0.022	0.13	41.40		

Delivery only in full packages.

LINITHERM LOOP FLAT ROOF INSULATION STRONG. SUSTAINABLE. HEALTHIER.

LINITHERM LOOP is highly efficient, sustainable, healthy for living and protects the climate:

- Thin insulation with best insulation value
- Lowest thermal conductivity of all bio-based insulation materials
- ✓ Suitable for promotion due to best U-values
- Ecologically healthy and free from harmful substances
- ✓ Safety in all construction types
- ✓ Recycable aluminium covering
- ✓ Durable (over 50 years), safe and without moisture absorption
- Around 60% biomass
- ✓ CO₂-neutral production







Gradient insulation LINITHERM PAL gradient with gravel on concrete



Gravel

Sealing membrane LINITHERM LOOP gradient insulation

Vapour barrier Concrete ceiling

LINITHERM LOOP PAL gradient

Advantages of the modular system

- Offers a variety of installation possibilities and drainage methods
- Gradient, ridge, valley and universal boards can be easily assembled

Gradient insulation

Flat roof insulation Concrete ceiling

- Short delivery times due to fast availability of all necessary parts
- Quick and easy installation

- Consistently the same surface and TCL
 - Time and cost savings

Flat roof

PH 22502010



Insulation core	PU rigid foam with bioma coated with aluminum fil	'U rigid foam with biomass content acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides, low-glare on one side							
Edge joints	Round about edgeless cu	ind about edgeless cut							
Overall dimension	1200 × 1200 mm								
Thickness mm total	Gradient %	Quantity Piece	per pallet m²	λ _D W/(mK)	€/m²				
30/55	2	48	69.1	0.022	23.90				
55/80	2	32	46.1	0.022	31.40				
80/105	2	24	34.6	0.022	38.10				
105/130	2	20	28.8	0.022	45.30				



LINITHERM LOOP PAL gradient ridge board 45° angle								
Set consisting of ridge board left and ridge board right, low-glare on one side								
Thickness mm total	Gradient %	Quantity per pallet Sets	λ _D W/(mK)	€/Set				
30/55	2	32	0.022	41.00				
55/80	2	24	0.022	52.70				
80/105	2	20	0.022	64.60				
105/130	2	16	0.022	77.40				



LINITHERM LOOP PAL gradient valley board 45° and a								
LINITIER LOOF FAL gradient valley board 45 angle								
Set consisting of valley board left and valley board right, low-glare on one side								
Thickness mm total	Gradient %	Quantity per pallet Sets	λ _D W/(mK)	€/Set				
30/55	2	32	0.022	41.00				
55/80	2	24	0.022	52.70				
80/105	2	20	0.022	64.60				
105/130	2	16	0.022	77.40				

Layering principle: LINITHERM gradient insulation plus flat roof insulation



70

80

100

120

160

*200

LINITHERM PGV

Flat roof insulation LINITHERM for green roof

Green roof Sealing membrane LINITHERM flat roof insulation Vapour barrier Concrete ceiling

Flat roof



Produkt gelistet im

DGNB Navigator

LINITHERM PAL						< 80 mm PH 2	1400000		
Insulation core	PU rigid foar coated with	יט rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides, low-glare on one side							
Edge joints	Thickness 20 Thickness 50 Thickness 12	hickness 20–40 mm: round about edgeless cut hickness 50–100 mm: round about edgeless cut or with rebated joint hickness 120–240 mm: round about rebated joint							
Overall dimension	1200 × 600	mm (= calculati	on measuren	nent) (coverage	with rebated join	nt is 2 cm smaller)			
Thickness mm total	Quantity p Piece	er package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²		
20	25	18.00	250	180.0	0.022	0.90	9.30		
30	16	11.52	160	115.2	0.022	0.64	11.00		
40	12	8.64	120	86.4	0.022	0.50	12.60		
50	10	7.20	100	72.0	0.022	0.40	14.40		
60	8	5.76	80	57.6	0.022	0.34	16.70		

70

60

50

40

36

30

28

24

20

20

50.4

43.2

36.0

28.8

25.9

21.6

20.2

17.3

14.4

14.4

0.022

0.022

0.022

0.022

0.022

0.022

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0.022

0.022

0.022

0.025

ZNAETER	Contractor			
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		ER	LINZM Damman mit Sh	
EIER	Dammen mit syste			

Insulation core	PU rigid foar coated with	l rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, ated with mineral fleece on both sides						
Edge joints	Thickness 20 Thickness 50 Thickness 12	ickness 20–40 mm: round about edgeless cut ickness 50–100 mm: round about edgeless cut or with rebated joint ickness 120–200 mm: round about rebated joint						
Overall dimension	1200 × 600	mm (= calculatio	on measuren	nent) (coverage	with rebated join	nt is 2 cm smaller)		
Thickness mm total	Quantity p Piece	per package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²	
20	25	18.00	250	180.0	0.028	1.17	8.80	
30	16	11.52	160	115.2	0.028	0.83	10.50	
40	12	8.64	120	86.4	0.028	0.64	12.10	
50	10	7.20	100	72.0	0.028	0.52	13.90	
60	8	5.76	80	57.6	0.028	0.44	16.20	
						≥ 80 mm PH 2	21500010	
80	6	4.32	60	43.2	0.026	0.31	20.00	
100	5	3.60	50	36.0	0.026	0.25	23.50	
120	4	2.88	40	28.8	0.025	0.20	28.00	
140	3	2.16	36	25.9	0.025	0.17	32.60	
160	3	2.16	30	21.6	0.025	0.15	37.10	
*180	2	1.44	28	20.2	0.025	0.14	41.40	

24

17.3

*200 2 1.44 Additional price for rebated joint per m² net 1.44

Other thicknesses upon request/Delivery only in full packages.

7

6

5

4

3

3

2

2

2

Other thicknesses upon request/Delivery only in full packages.

Additional price for rebated joint per m² net

5.04

4.32

3.60

2.88

2.16

2.16

1.44

1.44

1.44

1.44

Flat roof insulation LINITHERM for gravel roof on wooden construction



Gravel Sealing membrane

LINITHERM flat roof insulation

0.30

0.26

0.21

0.18

0.15

0.13

0.12

0.11

0.10

0.09

< 80 mm PH 21400010

30 mm PH 2

19.00

500000

20.50

24.00

28.50

33.10

37.60

41.90

46.40

50.60

54.90

+ 0.30

45.90 +0.30

0.12

Vapour barrier

Wooden construction

r.	Might have longer delivery times.
*	U-value calculation takes the thermal resistances R _{si} = 0.1 [m ² K/W] and R _{se} = 0.04 [m ² K/W] into account

Accessories



LINITHERM PUR w	edge Attica-wedge (trapezoidal)		PH 21509010
Insulation core Length	PU rigid foam acc. to EN 13165, fire behavior c 1200 mm	lass E acc. to EN 13501-1	
Measurement mm	Quantity per package	λ _D W/(mK)	€/Im
50 × 50	100	0.028	1.70
80 × 80	72	0.028	2.40
100×100	50	0.028	3 20

Full wedge or other thicknesses upon request/Delivery only in full packages.

l	LINITHERM PE vapour control layer 120 PH 21209000							
		PE vapour control layer according to EN 13984, suitable for new buildings and restoration, s_d -value 120 m ±10, of low fire load, fire behavior class E, weight 150 g/m ² ±10, colour yellow						
	Width / m	Length/m	Size/Roll m ²	Unit of quantity/UQ	€/UQ			
	4	25	100	m²	1.20			



LINITHERM PE vapour control layer 220 PH 21509020							
	PE vapour control layer s _d -value 220 m ±10, of	² E vapour control layer according to EN 13984, suitable for new buildings and restoration, s_d -value 220 m ±10, of low fire load, fire behavior class E, weight 210 g/m ² ±10, colour grey					
Width / m	Length/m	Size/Roll m ²	Unit of quantity/UQ	€/UQ			
4	25	100	m²	1.90			



Adhesive foam / Foam gun PH 21509020						
	Moisture-harder boards for flat n can temperature	Moisture-hardening single-component adhesive on a polyurethane basis for the gluing boards for flat roofs and gradient roofs, can be applied from -5 °C ambient temperature can temperature, flexible and not embrittling				
	Size/Content	Scope per can	Quantity per package	Unit of quantity/UQ	€/UQ	
Adhesive foam	850 ml	approx. 10–14 m ²	12 cans	piece	16.70	
Foam gun	Foam gun for the upright dispensing of foam and piece adhesive foam, pistol length 100 cm				151.20	



LINITHERM PAL FD for metal roofs



Roof sealing

LINITHERM PAL FD

LINITHERM flat roof insulation for lightweight industrial roofs Vapour barrier 220

Metal profiled roof

Extremely thin, light, and safe – the high-performance insulation for roofs in lightweight metal construction

PH 21501000

- Excellent insulation values
- Minimum panel thickness
- High compressive strength
- Light weight and manageable
- Good fire protection properties meets the fire protection
- requirements acc. to DIN 18234-1
- Fast and easy handling & processing



Insulation core	PU rigid foam ac coated with alur	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminum film on both sides, low-glare on one side					
Edge joints	Round about rel	Round about rebated joint					
Overall dimension	2440 × 1200 mr	m (= calculation m	easurement) (coverage wit	h rebated joint is 2 cm small	er)		
Thickness mm total	Quantity p Piece	per pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²		
80	30	87.8	0.022	0.26	20.50		
100	24	70.3	0.022	0.21	24.00		
120	20	58.6	0.022	0.18	28.50		
140	17	49.8	0.022	0.15	33.10		
160	15	43.9	0.022	0.13	37.60		
*180	13	38.1	0.022	0.12	41.90		
*200	12	35.1	0.022	0.11	46.40		

Other thicknesses upon request.



LINITHERM PAL FD-C	INITHERM PAL FD-C PH 21501020						
Insulation core	PU rigid foam ac coated with alun	U rigid foam acc. to EN 13165, fire behavior class C-s2,d0 acc. to EN 13501-1, oated with aluminum film on both sides, low-glare on one side					
Edge joints	Round about reb	ated joint					
Overall dimension	2440 × 1200 mr	n (= calculation m	neasurement) (coverage with	n rebated joint is 2 cm smalle	er)		
Thickness mm total	Quantity p Piece	er pallet m²	λ _D W/(mK)	U-value** [W/(m²K)]	€/m²		
80	30	87.8	0.022	0.26	21.90		
100	24	70.3	0.022	0.21	25.70		
120	20	58.6	0.022	0.18	30.50		
140	17	49.8	0.022	0.15	35.40		
160	15	43.9	0.022	0.13	40.20		

LZ Diese Produkte haben gegebenenfalls l\u00e4ngerzeiten.
 U-Wert unter Ber\u00fcksichtigung des Bemessungswertes der W\u00e4rmeleitf\u00e4higkeit nach DIN 4108-4 und der W\u00e4rme\u00fcbergangswiderst\u00e4nde R_{si} = 0,1 [m²K/W] und R_{se} = 0,04 [m²K/W]. Objektspezifische Besonderheiten z. B. nach und nicht ber\u00e4ksichtigt.

Accessories



LINITHERM PUR wedge Attica-wedge (trapezoidal) PH 21509010					
Insulation core Length	PU rigid foam acc. to EN 13165, fire behavior 1200 mm	class E acc. to EN 13501-1			
Measurement mm	Quantity per package	λ _D W/(mK)	€/Im		
50 × 50	100	0.028	1.70		
80 × 80	72	0.028	2.40		
100 × 100	50	0.028	3.20		

Full wedge or other thicknesses upon request/Delivery only in full packages.

	/

LINITHERM PE vapour control layer 120 PH 21209000						
	PE vapour control layer according to EN 13984, suitable for new buildings and restoration, s_d -value 120 m ±10, of low fire load, fire behavior class E, weight 150 g/m ² ±10, colour ye					
Width / m	Length/m	Size/Roll m ²	Unit of quantity/UQ	€/UQ		
4	25	100	m²	1.20		



LINITHERM PE vapour control layer 220					
	PE vapour control layer according to EN 13984, suitable for new buildings and restoration, s_d -value 220 m ±10, of low fire load, fire behavior class E, weight 210 g/m ² ±10, colour grey				
Width / m	Length/m	Size/Roll m ²	Unit of quantity/UQ	€/UQ	
4	25	100	m²	1.90	



Adhesive foam / Foam gun PH 21509020					
	Moisture-hardening single-component adhesive on a polyurethane basis for the gluing of insulatio boards for flat roofs and gradient roofs, can be applied from -5 °C ambient temperature or $+5$ °C can temperature, flexible and not embrittling				
	Size/Content	Scope per can	Quantity per package	Unit of quantity/UQ	€/UQ
Adhesive foam	850 ml	approx. 10–14 m ²	12 cans	piece	16.70
Foam gun	Foam gun for the upright dispensing of foam and adhesive foam, pistol length 100 cm		piece	151.20	



Gradient insulation LINITHERM PAL gradient with gravel on concrete Advantages of the modular system Offers a variety of installation possibilities and drainage methods Gravel Gradient, ridge, valley and universal boards can be easily assembled Sealing membrane Short delivery times due to fast availability of all necessary parts LINITHERM gradient insulation Quick and easy installation Consistently the same surface and TCL Time and cost savings Vapour barrier Gradient insulation Concrete ceiling Flat roof insulation Concrete ceiling Produkt a DGNB Naviga

tor	LINITHERM PAL gra	dient insulation system i	for flat roofs		PH 2150201	
	Gradient insulation system, consisting of basic insulation LINITHERM PAL (in cas application), LINITHERM PAL gradient from 30 mm up to 230 mm and LINITHERM PAL ridge/valley boards, according to gradient plan, description of the system components: see page 24 and 26					
		Gradient %	λ _D W/(mK)	Unit of quantity UQ	€/UQ	
	Insulation system	2	0.022	m³	upon request	

LINITHERM PAL gra	dient				PH 21502010
Insulation core	PU rigid foam acc. to EN coated with aluminum filr	13165, fire beha n on both sides,	vior class E acc. to low-glare on one :	EN 13501-1, side	
Edge joints	Round about edgeless cut	t			
Overall dimension	1200 × 1200 mm				
Thickness mm total	Gradient %	Quantity Piece	per pallet m²	λ _D W/(mK)	€/m²
30/55	2	48	69.1	0.022	21.70
55/80	2	32	46.1	0.022	28.50
80/105	2	24	34.6	0.022	34.60
105/130	2	20	28.8	0.022	41.20
130/155	2	16	23.0	0.022	47.10
155/180	2	12	17.3	0.022	52.50
180/205	2	12	17.3	0.022	58.20
205/230	2	8	11.5	0.022	63.60

	LINITHERM PAL g	radient ridge board 45° angle			PH 21502010
		Set consisting of ridge board	left and ridge board right, low-gl	are on one side	
100 - STREET	Thickness mm total	Gradient %	Quantity per pallet Sets	λ _D W/(mK)	€/Set
	30/55 55/80	2	32 24	0.022	37.30 47.90
	80/105	2	20	0.022	58.70
GIGLI	130/155	2	12	0.022	79.90
	180/205	2	8	0.022	99.90
	205/230	2	8	0.022	109.70

With low-glare surface



LINITHERM PAL gradient valley board 45° angle PH 21502010						
Thickness mm total	Gradient %	Quantity per pallet Sets	λ _D W/(mK)	€/Set		
30/55	2	32	0.022	37.30		
55/80	2	24	0.022	47.90		
80/105	2	20	0.022	58.70		
105/130	2	16	0.022	70.40		
130/155	2	12	0.022	79.90		
155/180	2	12	0.022	89.90		
180/205	2	8	0.022	99.90		
205/230	2	8	0.022	109.70		

With low-glare surface

	_	
Delivery as a set	BUTCOMADA V	
CONTRACT DISSUES		ALLER AND A
	A TIME	100 - 100 (C
	CO	CO
		SSL

Flat roof insulation – Gradient insulation

Point drainage with LINITHERM PAL/PGV gradient and valley boards



Interior drainage with LINITHERM PAL/PGV gradient and valley boards



LINITHERM PGV gradient insulation for flat roofs

Outside drainage with LINITHERM PAL/PGV gradient and ridge boards



PH 21502020



	Gradient insulation system, λ_D 0.026/0.028, consisting of basic insulation LINITHERM PGV, LINITHERM PGV gradient and LINITHERM PGV ridge/valley boards, according to gradient plan, description of the system components: see pages 24 and 27				
	Gradient %	λ _D W/(mK)	Unit of quantity UQ	€/UQ	
Insulation system	2	0.026/0.028	m ³	upon request	

	LINITHERM PGV gra	dient			P	H 21502020
a Charter	Insulation core	PU rigid foam acc. to EN thickness 5/30 mm unla	13165, fire behav minated, other th	vior class E acc. to I icknesses coated w	EN 13501-1, ith mineral fleece on both	sides
Safaan -	Edge joints	Round about edgeless cu	ut			
TINGENE .	Overall dimension	1200 × 1200 mm				
N N N N N N N N N N N N N N N N N N N	Thickness mm total	Gradient %	Quantity Piece	of pallet m²	λ _D W/(mK)	€/m²
roduzie H	5/30	2	116	167.0	0.028	16.80
	30/55	2	48	69.1	0.028	19.70
15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55/80	2	32	46.1	0.028	26.30
NE	80/105	2	24	34.6	0.026	32.40
11N Longen and a	105/130	2	20	28.8	0.026	38.90

	LINITHERM PGV gradient ridge board 45° angle					
1990		Set consisting of ridge board	l left and ridge board right, thickne	ess 5/30 mm unlaminate	ed.	
AND DESCRIPTION	Thickness mm total	Gradient %	Quantity of pallet Sets	λ _D W/(mK)	€/Set	
- CUSSE	5/30	2	38	0.028	27.20	
. The Co	30/55	2	32	0.028	31.90	
and the second s	55/80	2	24	0.028	42.00	
TRUCTURE .	80/105	2	20	0.026	52.40	
	105/130	2	16	0.026	63.80	

Delivery as a s	set	THE BUSCOME	
ALL DESCRIPTION OF THE PARTY OF		CO BIERRARIA	
	TO TOPSO		
	SERIES C		- CC
		tantonna u	

LINITHERM PGV gradient valley board 45° angle					
	Set consisting of valley boar	d left and valley board right, thickn	ess 5/30 mm unlaminat	ed	
Thickness mm total	Gradient %	Quantity of pallet Sets	λ _D W/(mK)	€/Set	
5/30	2	38	0.028	27.20	
30/55	2	32	0.028	31.90	
55/80	2	24	0.028	42.00	
80/105	2	20	0.026	52.40	
105/130	2	16	0.026	63.80	

THERM PAL gradient/LINITHERM PGV gradient	PH 21502020
	<i>€</i> / Plan
	E/ Fidii
Gradient plan < 200 m ²	80.00
Gradient plan > 200 m ²	110.00
Change	50.00



Delivery as a set

and a state of the		Set consisting of ridge boar	d left and ridg
	Thickness mm	Gradient	Quant

Flat roof insulation – ridge turret



LINITHERM ridge turret



PH 21500020

Insulation core Edge joints	PU rigid foam acc. to EN 1310 Round about edgeless cut	65, fire behavior class E acc. to E	N 13501-1, unlaminated	
Thickness mm	Length	Width	λ _D	€/piece
total	mm	mm	W/(mK)	
Ridge turret DR1200	1200	300	0.027	107.30
Ridge turret DR2400	2400	600	0.027	136.90
Ridge turret DR3600	3600	900	0.027	171.80
Ridge turret DR4800	4800	1200	0.027	275.60
Ridge turret DR6000	6000	1500	0.027	413.40
Ridge turret DR7200	7200	1800	0.027	689.60
Ridge turret DR8400	8400	2100	0.027	920.20
Ridge turret DR9600	9600	2400	0.027	1192.80
Ridge turret DR10800	10800	2700	0.027	1309.10
Ridge turret DR12000	12000	3000	0.027	1728.90
Ridge turret DR13200	13200	3300	0.027	2259.30





Terrace structure



Gravel / another layer Sealing membrane LINITHERM gradient insulation LINITHERM PQP

Vapour barrier

- Concrete ceiling

Advantages

- Ultrathin, most effective insulation of flat roof, balcony and terrace
- Connection heights can be adhered that are not possible with usual insulation material
- Optimal insulation system, for balconies and terraces if underlying living spaces should be protected
- Can be combined optimally according to requirements
- Allows a barrier-free transition between living spaces and terrace when carrying out renovation measures
- LINITHERM PGV cover layer on both sides protects the vacuum insulation core against mechanical damage

PH 21500030



Insulation core	20 mm vacuum ins	ulation, fire behavior o	lass E acc. to E	N 13501-1					
Outer layers	10 mm PU rigid foa coated with minera	10 mm PU rigid foam acc. to EN 13165 on each side, fire behavior class E acc. to EN 13501-1, coated with mineral fleece on both sides							
Edge joints	Round about edgel	less cut, covered with t	ape						
Thickness mm total	Thickness mm vacuum element	Measurement mm	λ _D PU	λ _D vacuum	U-value* [W/(m²K)]	€/m²			
40	20	1200 × 600	0.028	0.0066	0.27	198.60			
40	20	1200 × 300	0.028	0.0066	0.27	213.40			
40	20	600 × 300	0.028	0.0066	0.27	234.80			
40	20	600 × 150	0.028	0.0066	0.27	261.70			
60	40	1200 × 600	0.028	0.0066	0.15	278.60			
60	40	1200 × 300	0.028	0.0066	0.15	298.30			
60	40	600 × 300	0.028	0.0066	0.15	329.00			
60	40	600×150	0.028	0.0066	0.15	366.40			

Special dimension upon request.

LINITHERM PQP



LITEC parapet ele	ment	PH 31
Insulation core	PU rigid foam acc. to EN 13165, thickness 60 mm, fire behavior class E acc. to EN 13501-1, with mineral fleece on both sides	
Facing	Inside and outside: derived wood panel P5, 22 mm thick	
Please note	Individual factory-made parts according to construction plan, incl. wooden construction elements	
For details see pag	e 48	



External wall insulation from the outside – ventilated façades

LINITHERM External wall insulation from the outside for ventilated façade





Flame resistant

LINITHERM PAL W						PH	21600070		
Insulation core	PU rigid foam (corresponds low-glare on o	PU rigid foam acc. to EN 13165, fire behavior class C-s2,d0 acc. to EN 13501-1 (corresponds to German building inspection class »of low flammability«), aluminum foil on both sides, low-glare on one side							
Edge joints	Round about	Round about edgeless cut or with rebated joint							
Overall dimension	1200 × 600 n	1200 × 600 mm (= calculation measurement) (coverage with rebated joint is 2 cm smaller)							
Thickness mm total	Quantity p Piece	er package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²		
80	6	4.32	60	43.2	0.022	0.26	22.20		
100	5	3.60	50	36.0	0.022	0.21	25.70		
120	4	2.88	40	28.8	0.022	0.18	30.20		
140	3	2.16	36	25.9	0.022	0.15	34.80		
160	3	2.16	30	21.6	0.022	0.13	39.30		
Additional price for r	ebated joint pe	er m² net					+ 0.30		
Other thicknesses upor	Other thicknesses upon request/Delivery only in full packages.								



Benefits for builder and renovators

- Reliable insulation for ventilated facades and core insulation
- Maximum insualtion values with minimum panel thickness
- Slim wall constructions possible
- Pressure-resistant and dimensionally stable
- Of low flammability fire behaviour class C-s2, d0 acc. to EN 13501-1
- Installation without thermal bridges
- Easy handling through manageable dimensions and low weight



LINITHERM PAL W insulation boards are bolted together with the substructure to the wall. That's the originate of a homogeneous insulation. The both-sided aluminium lamination works as a moisture guard. The insulation value is retained. Core insulation in double-shell masonry walls







LINITHERM PAL Ur	ni N+F					PH 2	21600080			
Insulation core	PU rigid f coated w	2U rigid foam acc. to EN 13165, fire behavior class E n. EN 13501-1, coated with aluminum on both sides, low-glare on one side								
Edge joints	Tongue 8	Tongue & groove pressfit joints on all sides								
Overall dimension	1200 × 6	00 mm (= calcu	llation measur	rement) (coverag	ge with tongue &	groove is 2 cm sma	iller)	/all ide		
Thickness mm total	Quantity pe Piece	er package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²	nal v outsi		
80	6	4.32	60	43.2	0.022	0.26	21.20	ы Б		
100	5	3.60	50	36.0	0.022	0.21	24.70	2 X		
120	4	2.88	40	28.8	0.022	0.18	29.20	ш-		
140	3	2.16	36	25.9	0.022	0.15	33.80			
160	3	2.16	30	21.6	0.022	0.13	38.30			

Other thicknesses upon request / Delivery only in full packages.



* U-value calculation takes the thermal resistances $R_{si} = 0.13 \ [m^2 K/W]$ and $R_{se} = 0.04 \ [m^2 K/W]$ into account. Building-specific characteristics for example as per EN ISO 6946 are not taken into account.

Interior insulation for new and old buildings (Additional insulation beneath rafters/collar beams/jamb wall)

LINITHERM PAL GK with existing insulation between the rafters



Roofing Battens

100

9.5

batteris

Sarking membrane

Rafters Insulation between the rafters Roomsided covering (Airtightness layer) LINITHERM PAL interior wall insulation system Adjustment screws permit unequal rafter heights to be compensated and spaced.



Compensate distance with adjusting screws

64.90

1.04000

0.21



LINITHERM	PAL GK					PH 2	1300020
Insulation co	ore PU coa	rigid foam acc. to EN ated with aluminum fil	,				
Facing	Pla	Plasterboard facing on the inner side, 9.5 mm thick					
Edge joints	Ro	und about grooved for	loose plywood	spring (included	l in delivery)		
Overall dime	nsion 2500 × 600 mm (= calculation measurement)						
Thickness mm total	Thickness mm PU	Thickness mm Plasterboard	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²
39.5	30	9.5	45	67.5	0.022	0.65	38.80
49.5	40	9.5	36	54.0	0.022	0.50	42.20
69.5	60	9.5	26	39.0	0.022	0.34	49.80
89.5	80	9.5	20	30.0	0.022	0.26	57.20

25.5

0.022

17



LINIFIX SCREWS TROK	D TOP PAL GK		PH	21309000
Quantity required	Approx. 8 pieces per m ²			
Thickness mm element	Ø × Length mm	Size Content	Unit of quantity UQ	€/UQ
39.5–49.5	5.1 × 90	250 pieces/package	package	36.90
69.5	5.1 × 110	250 pieces / package	package	41.00
89.5	5.1 × 130	250 pieces / package	package	44.30
109.5	5.1 × 160	250 pieces/package	package	47.50

For direct installation to rafters.

109.5



Accessories



LINITHERM 1K-PU-pisto	PH 2	1009000						
LINITHERM filling and sealing foam, incl. recycling fee								
	Consumption for approx. 10 mm joint width	Size Content	Quantity per package	Unit of quantity UQ	€/UQ			
	Approx. 10–12 lm	Can 750 ml	12 cans	piece	9.30			



LINITHERM L+D Pro					PH 2	1009030		
	PP-vapour barrier and airtightness membrane for roof, ceiling and wall constructions, Polypropylene nonwoven, aluminized polypropylene, fire behavior class E acc. to EN 13501-1, s _d -value 2 m, temperature resistance – 30 °C to + 80 °C , lengthwise overlapping on both sides with acrylate-adhesive tape							
	Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ	€/UQ		
	1.5	50	75	24 rolls	m ²	3.10		



LINITHERM L+D ad	hesive tape			PH 2	21009030
	For LINITHERM L+D	Pro			
	Width mm	Size roll Im	Quantity per package	Unit of quantity UQ	€/UQ
	60	25	10 rolls	lm	1.70

LINITHERM Dichtf	ix			PH 2	21009030
	LINITHERM Dich and vapour brak mixed with wat	tfix is a high performance adh kes with hard surfaces – witho er for use as a primer	iesive binder, which p ut using a pressure la	ermanently glues vapou th. LINITHERM Dichtfix (ır barriers can be
	Size	Consumption with an 8 mm thick bead	Package Content	Unit of quantity UQ	€/UQ
Cartouche	310 ml	ca. 8 lm	12 cartouches	piece	9.40
Tubular bag	600 ml	ca. 16 lm	12 tubular bags	piece	13.90



LINITHERM sealing a	pron			PH 2	1009030			
	Tear-resistant, elastic polymer foil, with mineral fleece on both sides, incl. compriband 3×15 mm							
	Width mm	Size roll Im	Quantity per package	Unit of quantity UQ	€/UQ			
	200	10	5 rolls	lm	4.50			
	400	10	5 rolls	lm	7.00			

LINITHERM compriband PH 21009030							
For sealing the gap between masonry and insulation, compress to about 30% when installed impregnated, and one side self-adhesive							
Original thickness × selfadhesive width mm	For joints up to mm	Pre-compressed delivery format mm	Size roll m	Quantity per package Im	Unit of quantity UQ	€/UQ	
20 × 15	3–7	4 × 15	6.0	120.0	lm	2.80	
40 × 20	7-12	8 × 20	5.0	75.0	lm	5.40	
60 × 30	10-18	12 × 30	5.0	50.0	lm	10.40	

External wall insulation from the inside with LINITHERM PAL SIL



Benefits for builders and renovators

- Excellent insulation values
- Manageable, lightweight insulation elements
- Simple processing, free of thermal bridges
- Facing can be rendered, painted or wallpapered
- Additional living space due to slim construction
- Positive ecobalance
- Structural physical correct construction
- The silicate panel is resistant to moisture and mould



LINITHERM PA	L SIL					PH 2	21300070		
Insulation core	PU rigid fo coated wit	J rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, Jated with aluminum film on both sides							
Facing	Silicate pa	te panel on room side, thickness 6 mm							
Edge joints	Round abo silicate par	ound about grooved for loose plywood spring (included in delivery) licate panel with drywall edge							
Overall dimensi	on 2500 × 60	0 mm (= calculation	n measureme	ent)					
Thickness mm total	Thickness mm PU	Thickness mm silicate panel	Quantity Piece	per pallet m ²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²		
36	30	6	45	67.5	0.022	0.64	46.10		
46	40	6	36	54.0	0.022	0.50	50.80		
66	60	6	26	39.0	0.022	0.34	56.30		



LINITHERM PA	L SIL L for walls	that will be tiled	or under f	lat roofs		PH 2	1300070	
nsulation core	PU rigid fo coated wi	rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, ted with aluminum film on both sides						
System	With integ	integrated battens for mechanical fixation						
Facing	Silicate pa	te panel on room side, thickness 6 mm, affixed to the integrated battens with clips						
Edge joints	Round ab silicate pa	Round about grooved for loose plywood spring (included in delivery), silicate panel with drywall edge						
Overall dimensi	on 2500 × 60	00 mm (= calculation	n measureme	nt)				
Thickness mm total	Thickness mm PU	Thickness mm silicate panel	Quantity Piece	of pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²	
46	40	6	36	54.0	0.022	0.55	57.20	
56	60	6	26	39.0	0.022	0.37	64.00	



 U-value calculation takes the thermal resistances R_{si} = 0.13 [m²K/W] and R_{se} = 0.04 [m²K/W] into account. Building-specific characteristics for example as per EN ISO 6946 are not taken into account.

External wall insulation from the inside – accessories



LINITHERM PAL SIL V	wedge flanking in	sulation		PH 2	21300070	
Insulation core	Insulation core PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1					
System	With integrated ba	attens for mechanical fixa	tion			
Facing	ng Silicate panel on room side, thickness 6 mm, affixed to the integrated battens with clips					
Edge joints	Round about edge	eless cut				
Overall dimension	2500 × 600 mm (=	= calculation measuremer	nt)			
Thickness mm total	Thickness mm PU	Thickness mm silicate panel	λ _D W/(mK)	Unit of quantity UQ	€/UQ	
66/6	60/0	6	0.028	lm	29.30	



LINITHERM PAL SIL	reveal wedge			PH	21300070
nsulation core Facing Edge joints Overall dimension	PU rigid foam acc. Silicate panel on ro Round about edge 2500 × 300 mm (=	to EN 13165, fire behavi bom side, thickness 6 mm eless cut = calculation measuremer	or class E acc. to EN n nt)	13501-1	
Fhickness mm total	Thickness mm PU	Thickness mm silicate panel	λ _D W/(mK)	Unit of quantity UQ	€/UQ
26/14	20/8	6	0.028	lm	17.80



LINITHERM PAL SI	L cutting board					PH 2	1309000	
Insulation core	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	Silicate panel	on room side, thickr	ness 6 mm					
Edge joints	Untrimmed	trimmed						
Overall dimension	2500 × 1200	mm (= calculation m	easurement)	, reveal board	without edge	connection		
Thickness mm total	Thickness mm PU	Thickness mm silicate panel	Quantity Piece	of pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²	
26	20	6	45	135.0	0.022	0.91	34.20	

Accessories



LINIFIX frame screw			PH 2	1309000
Penetration depth	30-60 mm depending on the masonry			
Quantity required	Approx. 2 pieces per m ²			
	Ø × Length mm	Size Content	Unit of quantity UQ	€/UQ
	7.5 × 72	100 pieces/packages	package	39.40
	7.5 × 82	100 pieces/packages	package	43.30
	7.5 × 92	100 pieces/packages	package	48.20
	7.5 × 102	100 pieces/packages	package	52.00
	7.5 × 122	100 pieces/packages	package	65.20



Glue			PH 2	1309000
Quantity required	Gluing mortar, universally applicable for interio Approx. 3.5 kg/m ²	or use, very good ad	herence	
		Size Content	Unit of quantity UQ	€/UQ
		20 kg	bag	36.40

External wall insulation from the inside with LINITHERM PAL UK



Benefits for builders and renovators

- Minimum construction height
- 2 in 1 insulation with integrated 24 mm battens
- Intermediate space can be used as an installation level
- Time saving, faster installation thanks to integrated battens
- Full-surface insulation made of highly thermally insulating PU rigid foam
- Free choice of interior panelling plate (not included in delivery)
- Install electrical fixtures (LED spotlights, sockets) easily, quickly, flexibly and safely or, if necessary, retrofit them without damaging the air density level



LINITHERM PAL UK						PH 2	21300080
Insulation core	PU rigid foam ac coated with alun	c. to EN 13165, fire ninum film on both s	behavior cl sides	ass E acc. to E	N 13501-1,		
Battens	Longitudinal bat	tens 2 × made of wo	ood-based p	oanel 24/50 n	nm, centre-to	-centre distance	290 mm
Edge joints	Round about reb	ated joint					
Overall dimension	2500 × 600 mm	(= calculation meas	urement) (c	overage with	rebated joint	is 2 cm smaller)	
Thickness mm total	Thickness mm PU	Thickness mm battens	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²
84	60	24	24	36.0	0.022	0.34	29.60
104	80	24	20	30.0	0.022	0.26	33.20
124	100	24	16	24.0	0.022	0.21	36.70



The LINITHERM PAL UK insulation element is the universal interior insulation. It can be fitted to the rafters, the ceiling or the wall.

Thanks to the laminated battens, the substructure for the room-side panelling is supplied at the same time, which significantly reduces the installation time. The 24 mm deep intermediate space is ideal for use as an installation level.

When installing on a solid wall or ceiling, the product is fixed directly to the wall or ceiling with screws through the support battens. Additional bonding with adhesive mortar or adhesive foam is recommended to prevent air flow behind the product. Basically, two types of adhesive can be used here:

- Full-surface bonding with a level substrate
- Edge bead point bonding for uneven surfaces

The insulation board is also attached to the rafters using the laminated battens. An airtight layer should be present or created using our LINITHERM L+D Pro membrane for installation on the rafters.

The joints can also be taped if higher tightness requirements apply.





External wall from inside

Accessories



LINITHERM 1K-PU-pistol fo	am			PH 2	1009000
LINIT	HERM filling and sealing for	am, incl. recycling) fee		
Со	nsumption for approx. 10 mm joint width	Size Content	Quantity per package	Unit of quantity UQ	€/UQ
	Approx. 10–12 lm	Can 750 ml	12 cans	piece	9.30

M.L.+D.

	LINITHERM L+D Pro					PH 2	1009030
		PP-vapour ba Polypropylen s _d -value 2 m, with acrylate	rrier and airtigl e nonwoven, a , temperature r -adhesive tape	htness membran luminized polypr esistance – 30 °C	e for roof, ceiling and opylene, fire behavior C to +80 °C , lengthwi	wall constructions, class E acc. to EN 1350 ise overlapping on both)1-1, n sides
Z NN mit Sys		Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ	€/UQ
		15	50	75	24 rolls	m ²	3 10



LINITHERM L+D adh	esive tape			PH	21009030
	For LINITHERM L+D	Pro			
	Width mm	Size roll Im	Quantity per package	Unit of quantity UQ	€/UQ
	60	25	10 rolls	lm	1.70



LINITHERM Dichtfix	K			PH 2	21009030					
	LINITHERM Dick and vapour bra mixed with wat	LINITHERM Dichtfix is a high performance adhesive binder, which permanently glues vapour barriers and vapour brakes with hard surfaces – without using a pressure lath. LINITHERM Dichtfix can be mixed with water for use as a primer								
	Size	Consumption with an 8 mm thick bead	Package Content	Unit of quantity UQ	€/UQ					
Cartouche	310 ml	ca. 8 lm	12 cartouches	piece	9.40					
Tubular bag	600 ml	ca. 16 lm	12 tubular bags	piece	13.90					

LINITHERM comprib	and				PH 2	21009030
	For sealing the installed impre	e gap between masonn egnated, and one side s	y and insulations and insulations and insulations with the second s	on, compress to ab	bout 30% when	
Original thickness × selfadhesive width mm	For joints up to mm	Pre-compressed delivery format mm	Size roll m	Quantity per package Im	Unit of quantity UQ	€/UQ
20 × 15	3-7	4 × 15	6.0	120.0	lm	2.80
40 × 20	7-12	8 × 20	5.0	75.0	lm	5.40
60 x 30	10-18	12×30	5.0	50.0	lm	10.40

Insulation systems for floors / Accessories

Thermal insulation below screed without floor heating



Screed

Footfall sound insulation without floor heating LINITHERM PE vapour control layer 120

LINITHERM insulation system LINITHERM PE vapour control layer 120

Concrete ceiling

Thermal insulation below screed with floor heating



Screed Footfall sound insulation with floor heating LINITHERM PE vapour control layer 120 LINITHERM insulation system LINITHERM PE vapour control layer 120

Concrete ceiling



LINITHERM PMV

LINITHERM PMV						PH 2	1400030		
Insulation core	PU rigid coated	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with multi-layered composite foil on both sides							
Edge joints	Round a	about edgeless cut							
Overall dimension	1200 ×	600 mm (= calcula	tion measure	ment)					
Thickness mm total	Quantity Piece	per package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²		
20	25	18.00	250	180.0	0.022	0.83	9.30		
30	16	11.52	160	115.2	0.022	0.61	11.00		
40	12	8.64	120	86.4	0.022	0.48	12.60		
50	10	7.20	100	72.0	0.022	0.40	14.40		
60	8	5.76	80	57.6	0.022	0.34	16.70		
70	7	5.04	70	50.4	0.022	0.30	19.00		
80	6	4.32	60	43.2	0.022	0.25	20.50		

Delivery only in full packages.



Insulation of attic floors / Accessories

Insulation on concrete attic floor that can be walked on and loaded



LINITHERM attic insulation

- LINITHERM PE vapour barrier 120
- Concrete ceiling

LINITHERM PHW

Insulation on concrete attic floor that can be walked on and loaded



PH 21201040



Insulation of	ore	PU rigid foam a coated with alu	J rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, bated with aluminum film on both sides						
Facing		Derived wood p	erived wood panel P5, thickness 10 mm						
Edge joints		PU rigid foam s	errated on a	ll sides, deriv	ed wood pa	anel round a	bout with rel	oated joint	
Overall dim	ension	1200 × 600 mr (coverage is 1 c	I200 × 600 mm (= calculation measurement) coverage is 1 cm smaller)						
Thickness mm total	Thickness mm PU	Thickness mm P5 panel	Quantity o Piece	of package m²	Quantity Piece	of pallet m²	PU λ _D W/(mK)	U-value* [W/(m²K)]	€/m²
90	80	10	3	2.16	48	34.6	0.022	0.26	39.50
110	100	10	3	2.16	42	30.2	0.022	0.21	44.40
130	120	10	3	2.16	36	25.9	0.022	0.18	49.20
150	140	10	2	1.44	32	23.0	0.022	0.15	53.80
170	160	10	2	1.44	28	20.2	0.022	0.13	58.60

Other thicknesses upon request/Delivery only in full packages.

Quantity required	Approx $40 \mathrm{g} \mathrm{m}^2$				
Quantity required	Approx. 40 g/m²				
			Size Content	Unit of quantity UQ	€/UQ
		Bottle	550 g	piece	15.90
		Bucket	10 kg	piece	112.40
	our control laver 120			рн	21209000
	bul control layer 120				21205000
	PE vapour control layer	according to EN 13984, si	uitable for new bu	ildings and restoration,	
	s_d -value 120 m ±10, fil	re resistant, fire class E, we	eignt 150 g/m² ±10	J, COIOUR YELLOW	
Width/m	Length/m	Size/Roll m ²	Unit o	f quantity/UQ	€/UQ
4	25	100		m ²	1.20
LINITHERM L+D add	hesive tape			PH	2100903
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro	and LINITHERM LOOP L+I	D	PH 2	21009030
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width	and LINITHERM LOOP L+I	D Quantity per	PH : Unit of quantity	21009030 €/UQ
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm	and LINITHERM LOOP L+I Size roll	D Quantity per package	PH : Unit of quantity UQ	2100903(€/UQ
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm 60	and LINITHERM LOOP L+I Size roll 25	D Quantity per package 10 rolls	PH : Unit of quantity UQ Im	2100903 €/UQ 1.70
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm 60	o and LINITHERM LOOP L+I <mark>Size</mark> roll 25	D Quantity per package 10 rolls	PH : Unit of quantity UQ Im	2100903 €/UQ 1.70
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm 60	and LINITHERM LOOP L+I Size roll 25	D Quantity per package 10 rolls	PH : Unit of quantity UQ Im PH :	21009030 €/UQ 1.70 2100903
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm 60 K LINITHERM Dichtfix is a and vanour brakes with	o and LINITHERM LOOP L+1 Size roll 25 a high performance adhesin	D Quantity per package 10 rolls ve binder, which pe	PH : Unit of quantity UQ Im PH : ermanently glues vapou	2100903 €/UQ 1.70 21009030 ur barriers
LINITHERM L+D ad	hesive tape For LINITHERM L+D Pro Width mm 60 K LINITHERM Dichtfix is a and vapour brakes with with water for use as a	and LINITHERM LOOP L+I Size roll 25 high performance adhesis hard surfaces – without u primer	D Quantity per package 10 rolls ve binder, which pe using a pressure lat	PH : Unit of quantity UQ Im PH : ermanently glues vapou h. LINITHERM Dichtfix	2100903(€/UQ 1.70 2100903(ur barriers can be mix



12 cartouches

12 tubular bags

piece

piece

approx. 8 lm

approx. 16 lm

¹ U-value calculation takes the thermal resistances $R_{si} = 0.1 [m^2 K/W]$ and $R_{se} = 0.04 [m^2 K/W]$ into account. Building-specific characteristics for example as per EN ISO 6946 are not taken into account.

310 ml

600 ml







Cartouche

Tubular bag



9.40

13.40

Insulation system for underground garages

insulation of underground garages under concrete ceiling



Concrete ceiling

LINITHERM PAL TG BioZell®





INITHERM PAL TG B	ioZell®				PH			
sulation core	PU rigid foam acc. to E coated with aluminium	U rigid foam acc. to EN 13165, fire behavior class C-s2 acc. to EN 13501-1, pated with aluminium foil on both sides						
acing	Visible side = ecologica	isible side = ecological fine plaster on a mineral base, thickness approx. 2 mm						
dge joints	Tongue & groove joints	s on all sides						
verall dimension	1200 × 600 mm (= cal	culation measurer	nent) (coverage with tongue & g	roove is 2 cm sma	ller)			
hickness mm U	Quantity p Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²			
60	64	64.1	0.022	0.33	39.90			
80	48	34.6	0.022	0.25	44.20			
00	38	27.4	0.022	0.21	48.60			
20	32	23.0	0.022	0.17	52.90			
60	24	17.3	0.022	0.13	61.30			



LINITHERM PAL TG BioZell® is classified as a flame-resistant insulation material according to DIN EN 13501-1 and is suitable for use in medium-sized garages according to M-GarVO (>100 m² to 1.000 m²). The regulations of the state building code or the locally applicable building regulations must be observed.





Surface structure of LINITHERM PAL TG BioZell®

galvanized

Application

Accessories





LINIFIX edge fixation	clamps			PH 2'	1109010
Application	1-sided edge fixation clar	mp, length 25 mm			
	Length mm	Quantity required per element	Size Content	Unit of quantity UQ	€/UQ
galvanized	25 mm	2 pieces	25 pieces	package	22.30

Quantity required per element

2 pieces

Other fixation alternatives upon request.

1-sided fixation claw

Length

mm

15 mm for thickness 60/80 mm

20 mm for thickness 100 mm



Adhesive foam				PH 2	1509020
	Moisture-harder boards for flat r can temperature	ning single-componen oofs and gradient roo e, flexible and not emi	t adhesive on a polyuretha fs, can be applied from – 5 brittling	ne basis for the gluing of in °C ambient temperature of	sulation r +5 °C
	Size/Content	Scope per can	Quantity per package	Unit of quantity/UQ	€/UQ
Adhesive foam	850 ml	approx. 10–14 m ²	12 cans	piece	16.70



BioZell® repair kit			PH 2'	1109010
Quantity required	Ecological BioZell [®] fine plaster, for covering cutting Approx. 0.5 kg/m ²	edges and repai	ring skips	
		Size Content	Unit of quantity UQ	€/UQ
		5 kg	bucket	45.20



BioZell [®] paint roller	PH	21109010
Application	For the application of the BioZell [®] repair kit, width 12 cm, pile height approx. 11 mm	
	Unit of quantity UQ	€/UQ
	piece	7.00

PH 21109010

€/UQ

66.10

Unit of quantity UQ

package

Size

Content

100 pieces

Insulation systems for cellar ceilings – ecological surface coating

Insulation of cellar ceiling under concrete ceiling



Concrete ceiling

LINITHERM insulation system





NITHERM PAL KD BioZell® PH 21101040								
nsulation core	ion core PU rigid foam acc. to EN 13165, fire behavior class C-s2 acc. to EN 13501-1, coated with aluminium foil on both sides							
acing	Visible sid	e = ecological fir	ne plaster on a	mineral base,	thickness approx.	2 mm		
dge joints	Tongue &	groove joints on	all sides					
Overall dimension	1200 × 60	00 mm (= calcula	ation measurer	ment) (coverage	e with tongue & g	proove is 2 cm sma	ller)	
hickness mm U	Quantity p Piece	er package m²	Quantity Piece	per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²	
60	8	5.76	80	57.6	0.022	0.33	39.90	
80	6	4.32	60	43.2	0.022	0.25	44.20	
00	5	3 60	20	36.0	0.022	0.21	48 60	

Delivery only in full packages.



Ceiling



Surface structure of LINITHERM PAL KD BioZell®

LINITHERM PAL KD BioZell[®] cutting board

Accessories



For insulation under heating pipes.



Insulation core	PU rigid foam a coated with alu	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, coated with aluminium foil on both sides				
Facing	Visible side = e	cological fine plaster	r on a mineral base, thickr	ness approx. 2 mm		
Edge joints	Round about e	dgeless cut				
Overall dimension	1200 × 600 mr	n				
Thickness mm	Quantity n	er nackade	20	U-value*	€/m ²	
PU	Piece	m ²	W/(mK)	[W/(m ² K)]	C/III	
20	5	3.60	0.022	0.83	34.70	
Delivery only in full pack	kages.					

LINIFIX fixation claw	1			PH 2'	109010
Application	1-sided fixation claw				
	Length mm	Quantity required per element	Size Content	Unit of quantity UQ	€/UQ
galvanized	15 mm for thickness 60/80 mm 20 mm for thickness 100 mm	2 pieces	100 pieces	package	66.10







LINIFIX edge fixation	clamps			PH 2'	109010	
Application	-sided edge fixation clamp, length 25 mm					
	Length mm	Quantity required per element	Size Content	Unit of quantity UQ	€/UQ	
galvanized	25 mm	2 pieces	25 pieces	package	22.30	
Other fixation alternatives	s upon request.					

Adhesive foam				PH 2	1509020
	Moisture-harder boards for flat ro can temperature	ning single-componen pofs and gradient roo e, flexible and not eml	t adhesive on a polyurethai fs, can be applied from – 5 brittling	ne basis for the gluing of in °C ambient temperature or	sulation +5 °C
	Size/Content	Scope per can	Quantity per package	Unit of quantity/UQ	€/UQ
Adhesive foam	850 ml	approx. 10–14 m ²	12 cans	piece	16.70
BioZell® repair kit				рн 2	1109010
Biozen repuir are	Ecological Die Ze	ll® fine plaster for co	vering sutting edges and re-		
Quantity required	Approx. 0.5 kg/	m ² m ²	renng culling edges and re	pairing skips	
			Size Content	Unit of quantity UQ	€/UQ
			5 kg	bucket	45.20
Quantity required	Approx. 0.5 kg/	m²	Size Content 5 kg	Unit of quantity UQ bucket	€/UQ 45.20

BioZell [®] paint ro	oller PH 2	1109010
Application	For the application of the BioZell [®] repair kit, width 12 cm, pile height approx. 11 mm	
	Unit of quantity UQ	€/UQ
	piece	7.00

U-value calculation takes the thermal resistances $R_{si} = 0.17 [m^2K/W]$ and $R_{se} = 0.17 [m^2K/W]$ into account. Building-specific characteristics for example as per EN ISO 6946 are not taken into account. Ceiling

PH 21109010

Insulation systems for cellar ceilings

Insulation of cellar ceiling under concrete ceiling







LINITHERM PAL KD						PH 2	1101010	
Insulation core	PU rigid foam Thickness 40- Thickness 80-	rigid foam acc. to EN 13165, coated with silver aluminum film on both sides ckness 40–60 mm: fire behavior class E acc. to EN 13501-1 ckness 80–120 mm: fire behavior class C-s2,d0 acc. to EN 13501-1						
Edge joints	Round about	edgeless cut						
Overall dimension	1200 × 600 n	nm (= calculation	n measureme	ent)				
Thickness mm PU	Quantity p Piece	er package m²	Quantity Piece	/ per pallet m²	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²	
40	12	8.64	120	86.4	0.022	0.46	20.20	
60	8	5.76	80	57.6	0.022	0.33	25.60	
80	6	4.32	60	43.2	0.022	0.25	32.00	
100	5	3.60	50	36.0	0.022	0.21	38.30	
120	4	2.88	40	28.8	0.022	0.17	44.40	

4 Other thicknesses upon request. Delivery only in full packages.



U-value calculation takes the thermal resistances $R_{\rm si}=0.17$ [m²K/W] and $R_{\rm se}=0.17$ [m²K/W] into account. Building-specific characteristics for example as per EN ISO 6946 are not taken into account.



Accessories



Adhesive tape	e PP			PH 2	1109010
Application	PP-adhesive tape, for	r masking / covering	the panel joints		
	Quantity required m ²	Size mm	Content roll	Unit of quantity UQ	€/UQ
	2,5 lm	50	50 lfm	lm	0.60



LINIFIX Befesti	gungskralle	PH 2	1109010		
Application	2-sided edge fixation	n clamp, length 35 mm			
	Quantity required per element	Size mm	Content package	Unit of quantity UQ	€/UQ
	2 pieces	25	100 pieces	Package	36.00



LINIFIX edge fixation clamps PH 21109010						
Application	1-sided edge fixation clamp, length 25 mm					
	Length mm	Quantity required per element	Size Content	Unit of quantity UQ	€/UQ	
galvanized	25 mm	2 pieces	25 pieces	package	22.30	

Other fixation alternatives upon request.



LITEC building systems dormer





LITEC GBS dormer bu	ilding system kit	PH 31
Insulation core	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, with mineral fleece on both sides	
Facing	Inside and outside: derived wood panel P5, thickness 22 mm	
Please note	Individual factory-made parts according to construction plan, incl. wooden construction elements	
Panel thickness mm		€/building kit
144, 164, 184, 204		
Dormer building kit		Price upon request
Additional static calculat	ions	Invoicing at cost
LITEC GBS M	Also available with integrated soundproofing panel, thickness 40 mm for improved soundproofing properties panel thicknesses 164 (80 + 40), 184 (100 + 40), 204 (120 + 40) mm	Price upon request



LITEC GS dormer renovation board							
Insulation core	PU rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, with aluminum foil on both sides						
Facing	Outside: derived woo	od panel P5, thickness 22 mm					
Format	2440 × 1200 mm						
Thickness mm total	Thickness mm PU	Thickness mm derived wood panel	λ _D W/(mK)	U-value* [W/(m²K)]	€/m²		
82	60	22	0.022	0.33	44.50		
102	80	22	0.022	0.25	48.70		
122	100	22	0.022	0.21	52.80		
142	120	22	0.022	0.17	57.00		
162	140	22	0.022	0.15	60.90		

 Also available in other pre-assembled dimension and thickness
 Price upon request

 Other thicknesses upon request.
 Price upon request



LITEC Bausysteme Gaube



LITEC _____ attica element

LITEC skylight base





LITEC VELUX skylight	base for flat skylights	PH 31
Insulation core	PU rigid foam acc. to EN 13165, thickness 60 mm, fire behavior class E acc. to EN 13501-1, with mineral fleece on both sides	
Facing	Inside and outside: derived wood panel P5, thickness 15 mm	
Please note	Individual factory-made parts according to construction plan, incl. wooden construction elements	
Scope of delivery	Pre-assembled component parts, 15 m compriband 20 \times 15 mm, fixing material: 10 pcs 4.5 \times 50 mm, 10 pcs 5 \times 120 mm	
Height	According to requirements	
Other formats available	e upon request. Price upon re	equest

LITEC DAR sky	ylight in	stallation	frame u	oon flat i	roofs							PH 31
Insulation core PU rigid foam acc. to with mineral fleece of			am acc. to al fleece o	EN 13165 n both sid	5, thickı les	ness 60 mr	n, fire beh	avior cla	ss E acc. to) EN 135	01-1,	
Facing		Inside and	outside: d	erived woo	od pane	el P5, thick	ness 15 m	ım				
Please note		Individual f	actory-ma	de parts, i	ncl. wo	oden cons	truction el	lement				
	Inner d flashing	imensions g, width in	of mm	670	710	750	790	800	950	1000	1150	1200
VELUX	Window	v width mm		660			780		940		1140	
Roto WD/NE	Window	v width mm			650			740		940		1140
Roto	Window	v width mm		650		740			940		1140	
Kerb flashing	Window	w width mr	n	€/Piece	9							
20°	VELUX	Roto WD/NE	Roto									
	980	1040	980	791.00		794.00						
	1180	1240	1180	824.00		829.00			845.00		884.00	
	1400	1460	1400	849.00		869.00			884.00		928.00	

Other formats or combinations available upon request for special window sizes.







LITEC DAR skylight installation frame for pitched roofs						
Insulation core	PU rigid foam acc. to EN 13165, thickness 60 mm, fire behavior class E acc. to EN 13501-1, with mineral fleece on both sides					
Facing	Inside and outside: derived wood panel P5, thickness 15 mm					
Please note	Individual factory-made parts, incl. wooden construction element					
Other formats for spec	cial window sizes or window-combinations available upon request. Price upor	request				



LITEC parapet ele	ment			PH 31				
Insulation core	PU rigid foam acc. to EN 1316 with mineral fleece on both sid	U rigid foam acc. to EN 13165, thickness 60 mm, fire behavior class E acc. to EN 13501-1, vith mineral fleece on both sides						
Facing	Inside and outside: derived wo	od panel P5, thickness 15 m	n					
Please note	Individual factory-made parts acc	cording to construction plan, i	ncl. wooden construction eleme	nts				
Specification	Top cover 240 mm wide, loose	. On request, lower sill loose	for surface mounting.					
Thickness mm total	Height mm	Length mm	Unit of quantity UQ	€/UQ				
90	350	2500	lm	69.00				
90	600	2500	lm	80.00				
90	750	2500	lm	95.00				

Other thicknesses upon request.



LITEC building systems

LITEC restoration bar





LITEC restoration bar Fix									
Insulation core	PU rigid foam acc. to coated with aluminu	U rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, thickness 60 mm, oated with aluminum film on both sides							
Facing	Outside three-layere	d spruce wood panel	, thickness 22 mm						
Please note	With solid structural	timber (KVH) 1 × ler	igthwise and 1 × cro	sswise					
Application	For over-insulating c can be painted, glaz	or over-insulating of the airtight connection at verge and eaves. The spruce triple-layer board can be painted, glazed, leaded or cladded with slate.							
Thickness mm total	Thickness mm PU	Height mm	Lenght mm	Unit of quantity UQ	€/UQ				
82	60	600	2500	lm	78.00				
				m ²	130.00				



LITEC restoration bar Standard									
Insulation core	PU rigid foam acc. coated with alumin	J rigid foam acc. to EN 13165, fire behavior class E acc. to EN 13501-1, thickness 60 mm, bated with aluminum film on both sides							
Facing	Outside three-layer	Outside three-layered spruce wood panel, thickness 22 mm							
Application	For over-insulating can be painted, gla	-or over-insulating of the airtight connection at verge and eaves. The spruce triple-layer board can be painted, glazed, leaded or cladded with slate.							
Thickness mm total	Thickness mm PU	Height mm	Lenght mm	Unit of quantity UQ	€/UQ				
82	60	600	2500	lm	77.00				





LINITHERM L+D Pro















stolenschaum

*		Width m	Length m	Size roll m ²	Quantity per package	Unit of quantity UQ
		1.5	50	75	24 rolls	m²
	LINITHERM L+D adhesi	ve tape				P
	F	or LINITHERM	L+D Pro			
		Width mm		Size roll	Quantity per package	Unit of quantity UQ
		60		25	10 rolls	lm

with acrylate-adhesive tape

LINITHERM Dichtfix				PH 2	21009030
	LINITHERM Dic and vapour bra with water for	htfix is a high performance adhe akes with hard surfaces – withou use as a primer	sive binder, which t using a pressure	permanently glues vapou lath. LINITHERM Dichtfix o	r barriers can be mixed
	Size	Consumption with an	Package	Unit of quantity	€/UQ

PP-vapour barrier and airtightness membrane for roof, ceiling and wall constructions, Polypropylene nonwoven, aluminized polypropylene, fire behavior class E acc. to EN 13501-1, s_d-value 2 m, temperature resistance -30 °C to +80 °C , lengthwise overlapping on both sides

PH 21009030

€/UQ

PH 21009030

€/UQ

1.70

3.10

	5120	8 mm thick bead	Content	UQ	<i>€/0</i> Q
Cartouche	310 ml	approx. 8 lm	12 cartouches	piece	9.40
Tubular bag	600 ml	approx. 16 lm	12 tubular bags	piece	13.40

LINITHERM sealing a	pron			PH 2	21009030
	Tear-resistant, elastic	polymer foil, with mi	neral fleece on both side	es, incl. compriband 3 × ²	15 mm
	Width mm	Size roll Im	Quantity per package	Unit of quantity UQ	€/UQ
	200	10	5 rolls	lm	4.50
	400	10	5 rolls	lm	7.00

Adhesive tape BK				PH 2	1009020
Application recommendation	Butyl rubber, thickness	1 mm, for sealing co	ves, ridges, etc.		
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ
	200	10	5 rolls	lm	7.30
	300	10	2 rolls	lm	12.30

T-Adhesive tape				PH 2	21009020
Application recommendation	Polyacrylate adhesive tape				
	Width mm	Size roll m	Quantity per package	Unit of quantity UQ	€/UQ
	200	25	4 rolls	lm	4.20

LINITHERM compriba	PH 2	PH 21009030				
	For sealing the impregnated,	e gap between masonry and one side self-adhes	and insulation	on, compress to ab	oout 30% when installe	ed
Original thickness ×	For joints	Pre-compressed	Size roll	Quantity per	Unit of quantity	€/UQ

selfadhesive width	up to mm	delivery format mm	m	package Im	UQ	€/UQ
20 × 15	3-7	4 × 15	6.0	120.0	lm	2.80
40 × 20	7-12	8 × 20	5.0	75.0	lm	5.40
60 × 30	10-18	12 × 30	5.0	50.0	lm	10.40

LINITHERM 1K-PU-pistol foam	PH 21009000				
LINITHERM filling and sealing for	am, incl. recycling	fee			
Consumption for approx. 10 mm joint width	Size Content	Quantity per package	Unit of quantity UQ	€/UQ	
Approx. 10–12 lm	Can 750 ml	12 cans	piece	9.30	

LITEC Flat roof board

PH 31



- · LITEC flat roof board parapet Attica
- LINITHERM PUR Keil
- LINITHERM flat roof insolation

LITEC Flat roof board universal





Insulation core	ctivity	Multiple glued I class E acc. to E short-term peak	ayers of LINIRE N 13501-1, car temperature r	C construction be used in te ange of up to	boards, raw d mperature ran +250 °C	lensity approx ge of – 50 °C	. 550 kg/m³, to +100 °C,	N//mK)
mermai condu	cuvity	20-40 mm. AD	0.003 W/(IIIK),	50-00 1111.	ND 0.083 W/(II	IK), 80–200 II	пп. др 0.088 и	W(IIIK)
Width mm	50) 100	125	175	240	360	425	490
Length mm	2440	2440	2440	2440	2440	2440	2440	2440
Thickness mm				€	/lm			
20	3.60	6.60	8.40	11.30	16.10	23.80	26.10	30.30
30	4.90	9.70	11.40	16.50	22.00	33.40	39.30	45.50
40	6.50) 12.50	16.10	21.80	30.10	44.90	52.40	60.50
50	8.10) 15.50	19.80	27.30	37.70	56.40	65.50	75.60
60	9.70) 18.10	23.40	32.40	44.30	66.00	78.90	90.70
80	12.30) 24.70	30.90	43.20	59.10	88.80	105.10	120.80
100	15.50) 30.90	38.70	54.00	74.00	111.00	130.90	151.30
120	18.80) 37.70	46.40	64.50	88.80	133.20	157.20	181.40
140	21.40	43.20	54.00	75.60	103.60	155.50	183.50	211.90
160	24.70) 49.40	61.80	86.40	118.50	177.50	209.80	241.90
180	27.50	55.90	69.60	97.20	133.20	200.00	236.30	272.20
200	30.90	61.80	77.10	108.30	147.80	222.40	262.20	302.30

Further dimensions and pre cut parts upon request.



LITEC flat roof	board para	apet Attica						PH 31				
Insulation core	Mul clas: shoi	Multiple glued layers of LINIREC construction boards, raw density approx. 550 kg/m ³ , class E acc. to EN 13501-1, can be used in temperature range of – 50 °C to +100 °C, short-term peak temperature range of up to +250 °C										
Thermal conduc	tivity 20-	20–40 mm: λ_D 0.083 W/(mK); 50–60 mm: λ_D 0.085 W/(mK); 80–100 mm: λ_D 0.088										
Please note	Upp	Upper side bevelled with 5% inclination										
Width mm	50	100	125	175	240	360	425	490				
Length mm	2440	2440	2440	2440	2440	2440	2440	2440				
Thickness d mm				€/Ir	n							
20	6.50	9.80	11.10									
30	7.70	12.20	14.70	19.10								
40	9.70	16.00	18.80	24.70	33.10							
50	10.80	18.80	23.10	30.50	40.30	59.10						
60	12.20	21.40	27.40	35.20	46.80	71.00	91.70	105.80				
80	14.50	29.20	36.20	50.40	69.00	103.50	122.10	10 140.80				
100	18.00	.00 36.20 44.40 63.00 86.40 129.60 152.										

Further dimensions and pre cut parts upon request.

LINIREC construction board

as door and window reveals



for furniture manufacture



as filling of partition walls



applications

0.083

0.083

0.085

0.085

58.60

73.10

91.60

109.70



LINIREC construction	board				PH 41							
Insulation core	Made of rec approx. 550	ade of recycled PU rigid foam, with European Technical evaluation (ETA 19/0193)*, raw density pprox. 550 kg/m³, EN 1602, can be used in temperature range of –50 °C to +100 °C										
Thermal conductivity	20-40 mm:)–40 mm: λ _D 0.083 W/(mK); 50–60 mm: λ _D 0.085 W/(mK)										
Compressive stress	\geq 7,1 MPa, I binder and b	7,1 MPa, EN 826 (fluctuations depending on the used flour / grain size, nder and binder mixture)										
Thickness swelling	0.8% accor	.8% according to EN 68763										
Edges	Round abou	t edgeless cut										
Dimension	2440 × 122	0 mm										
Thickness mm PU	Quantity Piece	y per pallet m²		λ _D W/(mK)	€/m²							
15*	40	119.1			37.70							
20	30	89.3		0.083	43.20							
25	24	71.4		0.083	49.90							

Other thicknesses upon request

* Thicknesses < 20 mm are not monitored – deviations of the technical data are reserved.

59.5

44.7

35.7

29.8

20

15

12

10

The palletizing of our LINIREC construction boards is performed on solid wooden oneway pallets. The pallets are invoiced with $15, - \in$ per pallet.

Application areas

25

30

40

50

60

- suitable for thermal separation in buildings acc. to the Energy Performance of Buildings directive as well as in passive houses due to its good insulating properties
- thermal separation in facade construction
- connections for full thermal protection
- detailed solutions for pitched and flat roofs
- skirting board cladding of wood facades
- base paneling for timber facades
- as profiles and moldings
- filling of partition walls
- vehicle construction
- furniture manufacture (especially for wet rooms)

Benefits

- with European Technical evaluation ETA 19/0193*
- high thermal insulation
- hard, high mechanical strength
- moisture and mould resistant
- mildew resistant
- resistant to ageing
- non-rotting
- biological and building-ecological harmless
- resistant against mineral oils, acetone, methylene chloride, diluted alkalis and acids
- material can be processed using standard woodworking machines and tools

The LINIREC construction board consists of recycled PU rigid foam. The boards can be processed using standard woodworking machines and tools.

The construction boards have a high mechanical strength and are resistant to moisture.

Furthermore the LINIREC construction boards ensure reliable and extremely durable solutions for pitched and flat roofs.

52

Trust the insulation material, which proves itself daily

LINITHERM consists of PU rigid foam, a polyurethane plastics. Countless small cells ensure that cold and heat can penetrate only very slowly. Polyurethane plastics are multifunctional, modern and secure. They can be adapted (to the designated use), in various forms, hard or soft. We use polyurethane daily – at home, in the office and in the car, during sports and on vacation.

Polyurethane is used ...



Our insulation systems and building elements made of the high-performance insulation material PU rigid foam have many benefits:



THE HEALTHIER ROOF

Exemplary healthier building. Sustainable healthier living.



Low thermal conductivity λ_D 0.022 or λ_D 0.025/0.026/0.028.



Optimal cold and heat protection.



Maximum insulation with minimum panel thickness.



The insulation elements are easy to transport and can be installed quickly and easily, are pressure resistant (120 kPa) and dimensionally accurate & stable.



Moisture resistant, does not rot, resistant against fungi, microbes, does not decompose.



With LINITHERM insulation systems, one can receive solutions which will also fulfill higher requirements to noise protection.



PU rigid foam has an excellent mould resistance when performed properly. LINITHERM PAL SIL for the exterior wall insulation from the inside ensures with the room sided silicate board a surface which is insensitive to mould and moisture.



Low emissions and physiologically safe.



LINITHERM insulation systems PAL λ_D 0.022 ensure an excellent protection against eletric smog.





Save energy sustainably. Positive building biology.



The insulation systems based on PU rigid foam are offered with fire behavior classe E according to EN13501-1. Products marked with this symbol correspond to fire behavior class C-s2, d0, according to EN 13501-1 (equals the national construction supervisory designation: »of low flammability«).



Highest hail resistance class (5)



We provide 10 years of system warranty in case of using the LINITHERM accessory products in addition to our LINITHERM over rafter insulation system (Page 15 - Page 19: Products for airtightness, sealing, fixing, miscellaneous, roof window insulating frame). The installation instructions of company Linzmeier have to be observed and the roof construction has to be executed according to standards and specifications.

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Price basis	All prices are net in Euro and su	bject to statutory VAT.
Freight basis	Deliveries abroad	EXW ex works – without unload (INCOTERMS®2020) Freight charges upon request.
Delivery date	Fixed dates are not possible. The Schedule changes/postponeme loading date. The agreed deliver non-binding indications. Claims entitlements are excluded.	e delivery takes place with the time slot morning/afternoon. nts are possible up to 5 working days before the scheduled y dates are met by us as far as possible, however, they are always arising from delayed delivery or eventual damage compensation
Validity of price	Forementioned prices are valid u all earlier versions are no longer those valid on the date of delive and payment.	until a new price list is publicated. After publication of this new price list valid. The prices are subject to change. The prices charged are based on ery. This price list is based on our general terms of purchasing, delivery
Packaging	The palletizing of our LINITHERN wooden oneway pallets or onev The palletizing of our LINIREC cc The pallets are invoiced with 25	A insulation systems and LITEC building systems is performed on vay foam pads. These will not be invoiced separately. onstruction boards is performed on solid wooden oneway pallets. ,– € per pallet.
Disposal	PU rigid foam is free of HBCD.	
Terms and conditions	The order acceptance and delive in commercial transactions with Please find the current version o <i>https://www.linzmeier.de/en/cc</i>	ery is based on our »General Terms and Conditions of Business for use businesses«. four GTC on the Internet for download at: ompany/terms.

External wall from outside



LINIREC





For years our established LINITHERM insulation systems have been produced according to EN 13165 and are under regular control of the Überwachungsgemeinschaft Polyurethan-Hartschaum e.V., Stuttgart (Germany).



LITEC building systems with integrated timber frame constructions are produced according to DIN 1052 and are subjected to continuous quality checks.



The bio-based raw material components of LINITHERM LOOP insulation systems are certified according to REDcert² with the verification procedure of the biomass balance approach.



The seal »pure life« is the new environment quality label for PU insulation. Only products which meet the strict criteria and come from a monitored production are allowed to carry the seal. The certification applies to PU insulation board.



The DGNB Navigator logo is awarded to building products that are listed in the DGNB Navigator, the DGNB's building product platform. The Navigator forms a transition to DGNB certification.



The QNG seal is a building-related quality seal of the Federal Ministry of Housing, Urban Development and Building (BMWSB) and is recognised as proof of eligibility for the NH class. Our "Pure-Life" tested products fulfil the requirements of Annex 3.1.3 QNG / avoidance of harmful substances in insulation materials.



The Environmental Product Declaration according to DIN ISO 14025 provides a basis for sustainable construction and environmental assessment of buildings.



Thermal insulation is an important contribution to climate protection. Well insulated buildings need less fossil energy and therefore emit less CO₂. Better structural thermal insulation does not require thicker insulation layers, but more efficient insulation materials. High-performance insulation materials made of rigid polyurethane foam (PU) with its diverse application possibilities are the future technology for energy-efficient buildings. The IVPU industry association supports this. Linzmeier Bauelemente GmbH Industriestraße 21 D-88499 Riedlingen Tel.: +49 (0) 73 71 18 06-0

Linzmeier Bauelemente GmbH Schortentalstraße 24 D-07613 Königshofen / Thüringen Tel.: +49 (0) 3 66 91 7 22-0

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