



Flat Roof Systems Product Overview Issued April 2009

This Product Overview replaces all previous issues. We reserve the right to make alterations.







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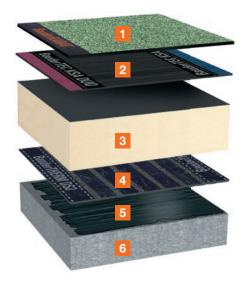
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Flat roof system construction - bitumen

New build - examples*

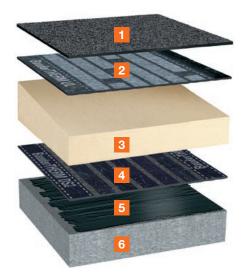
Two-layer systems



Example 1: New build Bitumen: two layers on concrete

High-quality two-layer bitumen waterproofing system on PIR insulation material.

1	Capping sheet layer	BauderKARAT	
2	Underlayer	BauderTEC KSA DUO	
3	Insulation material	BauderPIR FA	
4	Vapour barrier	BauderTHERM DS 2	
5	Primer	Burkolit V	
6	Structural deck	Concrete	



Example 2: New build Bitumen: two layers on concrete, (cut-to-falls insulation)

High-quality two-layer bitumen waterproofing system on PIR (cut-to-falls).

1	Capping sheet layer	Baukubit K5K			
2	Underlayer	BauderTHERM UL 50			
3	Insulation material	BauderPIR T Cut-to-falls insulation			
4	Vapour barrier	BauderTHERM DS 2			
5	Primer	Burkolit V			
6	Structural deck	Concrete			



Example 3: New build Ritumen: two layers on concrete

Bitumen: two layers on concrete, with Green Roof landscaping

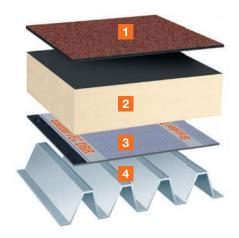
High quality two-layer bitumen waterproofing system, resistant to root penetration for Green Roof landscaping.

1	Landscaping	Bauder Green Roof System as superimposed load		
2	Capping sheet layer	BauderPLANT E		
3	Underlayer	BauderTHERM UL 50		
4	Insulation material	BauderPIR M / MF		
5	Vapour barrier	BauderTHERM DS 2		
6	Primer	Burkolit V		
7	Structural deck	Concrete		

Flat roof system construction - bitumen

New build - examples*

Single-layer systems

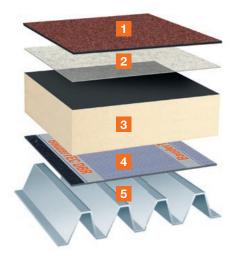


Example 4: New build Lightweight industrial roof to DIN 18234, B_{ROOF} (t1)*

High-quality single-layer bituminous waterproofing system on PIR insulation material, mechanically secured for slopes of 2% or more, in accordance with the industrial building code.

1	Capping sheet layer	BauderPRO F		
2	Insulation material	BauderPIR FA		
3	Vapour barrier	BauderTEC DBR		
4	Structural deck	Trapezoidal sheet metal		

^{*}B_{ROOF} (t3) specification in the area around openings is achieved by means of an additional glass mat insert of 120 gr.



Example 5: New build Lightweight industrial roof to DIN 18234, B_{ROOF} (t3)

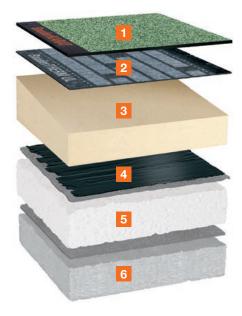
High-quality single-layer bituminous waterproofing system on PIR insulation material, mechanically secured for slopes of 2% or more, in accordance with the industrial building code.

1	Capping sheet layer	BauderPRO F
2	Trennlage	Bauder Glass mat 120 (glass mat 120)
3	Insulation material	BauderPIR FA
4	Vapour barrier	BauderTEC DBR
5	Structural deck	Trapezoidal sheet metal

^{*} Because of the wide range of Bauder system construction options for new build and refurbishment, it is not possible to show all variants here. All system construction options shown here meet the requirements for "solid roofing" of DIN 18531 and the relevant specialist regulations. Your Bauder advisor will be pleased to advise you regarding other system construction combinations and to answer any questions that you may have.

Flat roof system construction - bitumen Refurbishment - examples*

Existing waterproofing no longer serviceable

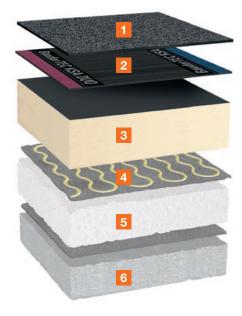


Example 6: Refurbishment, existing water- proofing defective

Bitumen: two layers, cut-to-falls insulation

High-quality two-layer welded bitumen refurbishment system on PIR with existing waterproofing no longer serviceable.

1	Capping sheet layer	BauderKARAT		
2	Underlayer	BauderTHERM UL 50		
3	Insulation material	BauderPIR T Cut-to-falls insulation		
4	Insulation material adhesive	BauderFLEX hot bitumen		
5	Existing waterproofing system	No longer serviceable		
6	Structural deck	Concrete / trapezoidal sheet metal / timber		



Example 7: Refurbishment, existing waterproofing defective Bitumen: two layers

High quality two-layer welded bitumen refurbishment system on aluminium-faced PIR with existing waterproofing no longer serviceable.

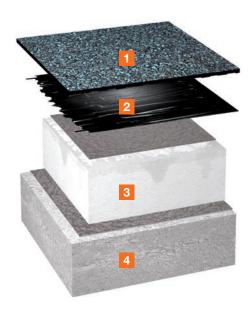
1	Capping sheet layer	Baukubit K5K			
2	Underlayer	BauderTEC KSA DUO			
3	Insulation material	BauderPIR FA			
4	Insulation material adhesive	Bauder Industrial roof adhesive ¹⁾			
5	Existing waterproofing	No longer serviceable			
6	Structural deck	Concrete / trapezoidal sheet metal / timber			

¹⁾ priming coat of Burkolit V where applicable

Flat roof system construction - bitumen

Refurbishment – examples*

Existing waterproofing still serviceable (suitable for overlay)



Example 8: Refurbishment, existing waterproofing suitable for overlay Bitumen: single layer

High quality single-layer welded bitumen refurbishment system with existing waterproofing suitable for overlay and featuring a slope of at least 2%

1	Capping sheet / renovation layer	BauderTHERM SL 500			
2	Primer	Burkolit V			
3	Existing waterproofing system	Serviceable Concrete / trapezoidal sheet metal / timber			
4	Structural deck				

Renovation or new build on timber – example*



Example 9: Sealing on timber Bitumen: two-layer

High-quality two-layer bitumen sealing system on timber boarded deck, e.g. car port

1	Capping sheet / renovation layer	BauderKARAT	
2	Sacrificial / separation layer	BauderTEC ELWS DUO	
3	Structural deck	Timber	

^{*} Because of the wide range of Bauder system construction options for new build and refurbishment, it is not possible to show all variants here. All system constructions shown here meet the requirements for "solid roofing" of DIN 18531 and the relevant specialist regulations. Your Bauder consultant will be pleased to advise you regarding other system construction combinations and to answer any questions that you may have.

Capping sheet layers (selection)

Layer for layer – the highest quality



BauderKARAT

Top quality waterproofing with excellent durability

Polymer bitumen waterproof membrane with a polyester composite reinforcement layer capable of taking extremely high mechanical loading, combined with a high performance bitumen formulation. Slate mineral finish options of greenwhite or granite black. Granite black is a natural shade that does not discolour, but features natural colour shade variations.

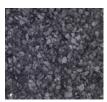
Applications:

High performance polymer modified bitumen waterproof membrane as a capping sheet layer for flat roof structures sealed with multiple layers of bitumen waterproofing.

Special properties:

- A wide temperature window: cold bending of the lower bitumen coating -40°C, heat resistance of the upper finished coating up to +150°C
- 1450 N maximum tensile force: in areas such as transitions and upstands, BauderKARAT can withstand the highest mechanical loads.

Available colours:



granite black



green-white

BauderPLANT E

Root-resistant roof system

Polymer bitumen waterproof membrane with integral root penetration resistance. High-grade reinforcement layer and high performance bitumen formulation.

Applications:

BauderPLANT E is used as slate mineral finished capping sheet layer for long-term waterproofing and root resistance under Green Roof landscaping.

Special properties:

- root resistance to FLL guidelines
- Wide temperature window: cold bending to -36°C, heat resistance +120°C
- 1000 N maximum tensile force





green slate





BauderPRO F

Single-layer waterproofing for lightweight industrial roofs

BauderPRO F is a high quality slate mineral finished polymer bitumen waterproofing membrane for installation as a single layer, as described in DIN 18531 for a roof slope of at least 2%.

Applications:

Polymer bitumen waterproof membrane for single-layer waterproof roof systems.

Special properties:

- Wide temperature window: cold bending of bitumen coating -36°C heat resistance +120°C
- 1000 N maximum tensile force

Available colours:







red slate

green-white

natural slate

BauderTEC KSO SN

Cold applied self-adhesive capping sheet layer with heat welded laps

As a cold applied self-adhesive capping sheet layer with additional heat activated weld for a secure lap seal, this sheeting is able to withstand high mechanical loads and is visually attractive.

Applications:

Cold applied self-adhesive polymer bitumen membrane as a capping sheet layer for flat roof structures to be sealed with multiple layers of bitumen waterproofing.

Special properties:

- cold adhesion on flat surfaces
- reliable heat welded lap sealing
- resistant to weathering and thermal stresses, durable and resistant to high loads
- very attractive appearance
- 1000 N maximum tensile force

Available colours:





Underlayers (selection)

Layer for layer – the highest quality



BauderTEC KSA DUO

Underlayer with optional 'hot or cold' lap sealing

Cold applied self-adhesive underlayer of special elastomer bitumen with optional lap sealing method: cold applied sealing of the side laps and on the flat surface or alternatively, cold applied bonding to the flat surface and heat welding of the side and head laps. The desired method of lap sealing may be decided on site at any time and subsequently changed if necessary.

Applications:

As a cold applied self-adhesive underlay membrane for multi-layer flat roof structures using bituminous waterproofing. For example, for heat-sensitive thermal insulation or substrates with a high fire risk.

Special properties:

- may be used as a fully bonded cold applied underlayer with heat welded or cold self-adhesive laps
- safe emergency sealing with heat welded lap sealing
- especially quick and easy to lay
- minimal sheet thickness
- If lexible for detailing work



BauderTEC ELWS DUO

Underlayer, separation course and vapour pressure equalising layer in a single membrane

Cold applied self-adhesive underlayer of special elastomer bitumen with optional lap sealing method: cold applied bonding of the laps and on the flat surface or alternatively, cold applied bonding on the flat surface and heat welding of the side and end laps. The desired method of lap sealing may be decided on site at any time and subsequently changed if necessary.

Applications:

As cold applied self-adhesive underlay membrane for multi-layer flat roof structures using bituminous waterproofing. For example, for heat-sensitive thermal insulation or substrates with a high fire risk.

If the peel-off release film on the underside is removed only in the lap area, then the membrane may also be used as a separation layer – also, with partial peeling away of the underside protective film, as a vapour pressure equalising layer.

Special properties:

- peel-off release film with six perforations on the underside
- no additional separation layer required on timber boarded decks
- safe emergency sealing with heat welded lap sealing
- minimal sheet thickness
- flexible for detailing work
- A wide range of applications, simplifies stock holding



BauderTHERM UL 50

Underlayer suitable for high-speed torch application

This waterproof membrane of special elastomer bitumen impresses due to its minimal heating time – made possible by the special THERM strips on the underside. Due to less heat generated during application, Bauder PIR insulation materials are not damaged. At the same time, there are savings in energy, materials and time. The diffusion zones between the THERM strips provide for controlld vapour pressure relief in the event of inadvertently trapped moisture, thus avoiding blistering.

Applications:

As an underlayer for multi-layer flat roof structures using bituminous waterproofing, including rapid bonding and vapour pressure equalising layer.

Special properties:

- High-speed application using special bitumen
- THERM strips on the underside provide a vapour pressure equalising layer
- 1000 N maximum tensile force



BauderFLEX G 4 E

Bituminous waterproof membrane

Special elastomer bitumen membrane with above average high performance characteristics.

Applications:

As an underlayer for multi-layer flat roof structures using bituminous waterproofing.

Special properties:

■ 1200 N maximum tensile force

Vapour barriers (selection)

Layer for layer - the highest quality



BauderTEC KSD DUO

Vapour barrier sheet membrane with optional lap sealing method

Cold applied self-adhesive elastomer bitumen vapour barrier sheet membrane with an optional lap bonding method. In the application of this vapour barrier, there is no thermal stress whatsoever on the substrate. Minimal differences between the height of any overlaps improves the stability and adhesion of the rigid insulation materials.

Applications:

Vapour barrier sheet membrane with special aluminium foil surface. Cold applied self-adhesive on the underside, with perforated peel-off release film for use as separation layer on timber boarded deck constructions.

Special properties:

- double perforated underside peel-off release film
- If the fully bonding or just lap sealing only is possible
- no additional separation layer required on timber boarded construction.
- secure emergency sealing heat welded lap sealing
- only 1.5 mm thick: virtually no difference in height in the overlap area
- resistant to mechanical loads and puncturing
- sd value ≥ 1500 m
- 15 metre roll



BauderTEC DBR

Bitumen vapour barrier sheet membrane for lightweight roofs to DIN 18234

High grade self-adhesive and airtight bitumen vapour barrier sheet membrane, meeting all fire prevention requirements of DIN 18234. With its 1.08 m width, it is ideal for laying on trapezoidal sheet metal decking.

Applications:

Flat roofs conforming to the Industrial Building Code; ideal for trapezoidal sheet deck structures.

Special properties:

- reduced fire load
- calorific value <10.5MJ/m²</p>
- economical 50 m roll, quickly laid
- cold applied self-adhesive coating to the underside
- homogenous bitumen bonding of the longitudinal laps
- sd value ≥ 1500 m



BauderTHERM DS1 DUO

Cold applied self-adhesive vapour barrier sheet membrane with THERM strips

BauderTHERM DS 1 DUO is a cold applied self-adhesive vapour barrier sheet membrane for laying on trapezoidal sheet metal decking. On the upper surface the membrane has THERM strips, while on the underside it is cold self-adhesive. The benefit: less flame; clean, fast and even easier application.

Applications:

Vapour barrier sheet membrane for trapezoidal sheet metal decking, with special aluminium foil. Cold applied self-adhesive on the underside, with perforated peel-off release film for use as separation layer on timber boarded construction. THERM strips torch activated on the upper surface for bonding the BauderPIR thermal insulation boards.

Special properties:

- double perforated underside peel-off release film
- If the fully bonding or just lap sealing only is possible
- no additional separation layer required on timber boarded construction.
- secure emergency sealing with heat welded lap sealing
- resistant to mechanical loads and puncturing
- sd value ≥ 1500 m



BauderTHERM DS2

Vapour barrier sheet membrane with THERM strips, suitable for high-speed application

Thanks to the THERM strips on both sides, BauderTHERM DS 2 is noticeably easier and distinctly quicker to apply than conventional vapour barrier bituminous membranes. The insulation may be applied more easily and rapidly because there is no additional adhesive to be applied. This saves both time and material. The adhesive properties of the special bitumen of the THERM strips are activated immediately without the usual time-consuming melting of conventional torch activated bitumen coatings. The result: activation, placing, pressing on, finished!

Applications:

Vapour barrier sheet membrane for installation on concrete, with special aluminium foil core and THERM strips on the upper surface and underside.

Special properties:

- THERM strips to upper and lower surfaces.
- sheet membrane suitable for high-speed application
- sd value ≥ 1500 m

Capping sheet layers

Technical Data - Summary

	ROOT-RESISTANT				
Capping sheet layers	Bauder KARAT	Baukubit K5K	Bauder PLANT E	Bauder FLEX K5E	Bauder TEC KSO SN
Description	High quality polymer bitumen water- proof sheeting	High quality elastomer bitumen water- proof sheeting	Elastomer bitumen waterproof sheeting, root- resistant to FLL guidelines	Elastomer bitumen water- proof sheeting	Elastomer bitumen cold- applied self- adhesive sheeting with welded laps
Application method	Torch application	Torch application	Torch application	Torch application	Cold applied self- adhesive sealing (laps)
Upper Surface	Slate	Slate	Slate	Slate	Slate
Underside	Film	Film	Film	Film	Peel-off film, cold-applied self-adhesive + welded laps
Reinforcement	Polyester composite backing 300 g/m²	Polyester mat 250 g/m²	Polyester mat 250 g/m²	Polyester mat 250 g/m²	Mesh scrim
Length (m) DIN EN 1848-1	5	5	5	5	5
Width (m) DIN EN 1848-1	1	1	1	1	1
Thickness (mm) DIN EN 1849-1	5.2	5.2	5.2	5.2	4.2
Cold-bending (°C) DIN EN 1109	-25 above -40 below	≤-36	≤-36	≤-30	≤-30
Heat resistance (°C) DIN EN 1110	+150 above +120 below	≥+120	≥+120	≥+110	≥+100
Tensile behaviour: Max. tensile force (N / 50 mm) DIN EN 12311-1	1450	1000	1000	800	≥1000
Tensile behaviour: Elongation (%) DIN EN 12311-1	30	45	45	40	≥2
Application type to DIN V 20000-201	DO/E1 PYE KTP 300 S5	DO/E1 PYE PV 200 S5	DO/E1 PYE PV 200 S5	DO/E1 PYE PV 200 S5	DO/E1 PYE KTG KSP 4
Item number	Granite black 1716 0000 Green-white 1717 0000	Granite black 1718 0000 Autumn brown 1719 0000 Natural slate 1721 2000 Red slate 1722 0000	Green slate 1724 0000	Natural slate 1772 2000	Natural slate 1618 2000

			ROOT-RESISTANT
Bauder TEC KSO	Bauder THERM SL 500	Bauder PRO F	Bauder Pflanzschwarte
Elastomer bitumen cold- applied self- adhesive membrane	High quality refurbishment membrane, single-layer	High quailty ela- stomer bitumen single- layer membrane	Elastomer bitumen waterproof membrane, root- resistant to FLL guidelines
Cold-applied self- adhesive	High-speed torch application	Torch application	Torch application
Slate	Slate	Slate	Film
Peel-off film, cold-applied self- adhesive	Film, thermal strips	Film	Film
Mesh scrim	Polyester mat 250 g/m²	Polyester mat	Copper strip + glass mat 60 g/m ²
5	5	7.5 (green-white: 5)	5
1	1	1.1	1
4.2	5.2	5.2	5
≤-30	≤-30	≤-36	≤-20
≥+100	≥+105	≥+120	≥+80
≥1000	1000	1000	500
≥2	45	45	3
DO/E1 PYE KTG KSP 4	DE/E1 PYE KTP 5	DE/E1 PYE KTP 5	DO/E2 PYE V CU S5
Natural slate 1603 2000	Natural slate 1635 2000	Red slate 1731 0000 Natural slate 1732 2000 Green-white 1733 0000	1352 0000

Bauder PYE PV 200 S5 EN	Bauder PYP PV 200 S5 EN
Elastomer bitumen water- proof membrane	Plastomer bitumen water- proof membrane
Torch application	Torch application
Slate	Slate
Film	Film
Polyester mat 250 g/m²	Polyester mat 250 g/m ²
5	5
1	1
5.2	5.2
≤-25	≤-15
≥+100	≥+140
≥800	≥800
≥35	≥35
DO/E1 PYE PV 200 S5	DO/E1 PYP PV 200 S5
Natural slate 1773 2000	Natural slate 1842 2000

Underlayers

Technical Data - Summary

Underlayers	Bauder TEC KSA DUO	Bauder TEC KSA	Bauder TEC ELWS DUO	Bauder THERM UL 50	Bauder THERM UL 30
Description	Elastomer bitu- men cold-applied self-adhesive membrane with optional lap sealing method	Elastomer bitumen cold-applied self-adhesive membrane	Elastomer bitumen KSK sheeting, with optional lap sealing method and vapour pressure equalising layer	Elastomer bitumen membrane suita- ble for high-speed torch application	Elastomer bitumen memb- rane suitable for high-speed torch application
Application	Cold-applied self- adhesive, heat welding (laps)	Cold-applied self- adhesive	Cold-applied self- adhesive, heat welding (laps)	High-speed torch application	High-speed torch application
Upper Surface	Film	Film	Film	Mat-laminated, sand	Mat-laminated, sand
Underside	Peel-off film, cold-applied self- adhesive	Peel-off film, cold-applied self- adhesive	Peel-off film with multiple perfora- tions, cold-applied self-adhesive	Film, thermal strips	Film, thermal strips
Reinforcement	Mesh scrim with glass mat	Mesh scrim with glass mat	Mesh scrim with glass mat	Polyester fibre with glass mat 180 g/m²	Mesh scrim with glass mat
Length (m) DIN EN 1848-1	7.5	7.5	7.5	7.5	7.5
Width (m) DIN EN 1848-1	1	1	1	1	1
Thickness (mm) DIN EN 1849-1	3	3	3	4.2	4
Cold-bending (°C) DIN EN 1109	≤-30	≤-30	≤-30	≤-30	≤-15
Heat resistance (°C) DIN EN 1110	≥+100	≥+100	≥+100	≥+100	≥+100
Tensile behaviour: Max. tensile force (N / 50 mm) DIN EN 12311-1	≥1000	≥1000	≥1000	≥1000	≥1000
Tensile behaviour: Elongation (%) DIN EN 12311-1	≥2	≥2	≥2	≥20	≥2
Application type to DIN V 20000-201	DU/E1 PYE KTG KSP 3	DU/E1 PYE KTG KSP 3	DU/E1 PYE KTG KSP 3	DU/E1 PYE KTP S4	DU/E1 PYE KTG S4
Item number	1606 0000	1602 0000	1617 0000	1633 0000	1632 0000

Bauder FLEX K 5 E	Bauder FLEX G 4 E	Bauder KOMPAKT ULK	PYE F	ider PV 200 35	Bauder PYE G 200 S4	Bauder PYE PV 200 DD	Bauder PYP PV 200 S5
Elastomer bitumen water- proof membrane	Elastomer bitumen water- proof membrane	Elastomer bitumen water- proof membrane for the Bauder- KOMPAKT system	water	r bitumen proof brane	Elastomer bitumen membrane	Elastomer bitumen waterproof membrane	Plastomer bitumen membrane
Torch application	Torch application	Pouring and rolling process	Torch ap	plication	Torch application	Pouring and rolling process	Torch application
Mica finished	Mica finished	Film, sanded	Mica fi	inished	Mica finished	Sanded	Mica finished
Film	Film	Sanded	Fi	lm	Film	Sanded	Film
Polyester mat 250 g/m ²	Glass fabric 200 g/m²	Polyester mat 250 g/m ²	Polyes 250	ter mat g/m²	Glass fabric 200 g/m²	Polyester mat 250 g/m²	Polyester mat 250 g/m ²
5	5	10	Ļ	5	5	10	5
1	1	1		1	1	1	1
5	4	Approx. 3	ţ	5	4	Approx. 3.6	5
≤-30	≤-30	≤-30	≤-	25	≤-25	≤-25	≤-15
≥+110	≥+110	≥+100	≥+	100	≥+100	≥+100	≥+140
800	≥1200	≥800	≥8	00	≥1000	≥800	≥800
40	≥2	≥35	≥(35	≥2	≥35	≥35
DU/E1 PYE PV 200 S5	DU/E1 PYE G 200 S4	DU/E1 PYE PV 200 DD		/E1 ' 200 S5	DU/E1 PYE G 200 S4	DU/E1 PYE PV 200 DD	DU/E1 PYP PV 200 S5
1760 0000	1740 0000	1785 0000	1762	0000	1745 0000	1783 0000	1840 0000

Vapour barriers

Technical Data - Summary

Vapour barriers and special membranes	Bauder TEC KSD DUO	Bauder TEC KSD	Bauder TEC DBR	Bauder THERM DS1 DUO	Bauder THERM DS2
Description	Cold-applied self- adhesive elastomer bitumen vapour barrier membrane with optional lap bonding	Cold-applied self-adhesive elastomer bitumen vapour barrier membrane	Cold-applied self-adhesive elastomer bitumen vapour barrier membrane (redu- ced fire load)	Cold-applied self- adhesive elastomer bitumen vapour barrier membrane with thermal strips on top surface	Elastomer bitumen vapour barrier membrane suitable for high-speed torch application
Application	Cold-applied self- adhesive, heat welding (laps)	Cold-applied self-adhesive	Cold-applied self-adhesive	Cold-applied self- adhesive, heat welding (laps)	High-speed torch application
Upper Surface	Special aluminium foil	Special aluminium foil	Special aluminium foil	Foil/film, thermal strips	Foil/film, thermal strips
Underside	Perforated peel-off film, cold-applied self- adhesive	Peel-off film, cold-applied self-adhesive	Peel-off film, cold-applied self-adhesive	Peel-off film, cold-applied self-adhesive	Foil/film, thermal strips
Reinforcement	Aluminium-poly- ester combination + glass mat 60 g/m²	Aluminium-poly- ester combination + glass mat 60 g/m ²	Aluminium-poly- ester combination + special scrim 50 g/m ²	Aluminium-poly- ester combination + glass mat 60 g/m²	Aluminium-poly- ester combination + glass mat 60 g/m²
Length (m) DIN EN 1848-1	15	15	50	7.5	7.5
Width (m) DIN EN 1848-1	1	1	1.08	1.08	1.08
Thickness (mm) DIN EN 1849-1	1.5	1.5	Approx. 0.5	4	4
Cold-bending (°C) DIN EN 1109	≤-30	≤-30	≤-40	≤-25	≤-6
Heat resistance (°C) DIN EN 1110	≥+100	≥+100	≥+110	≥+70	≥+70
Tensile behaviour: Max. tensile force (N / 50 mm) DIN EN 12311-1	Longitudinal ≥400 Transverse ≥300	Longitudinal ≥400 Transverse ≥300	800	Longitudinal ≥400 Transverse ≥300	Longitudinal ≥400 Transverse ≥300
Tensile behaviour: Elongation (%) DIN EN 12311-1	≥4	≥4	4	≥2	≥2
Water vapour permeability: sd value (m) DIN EN 1931	≥1500	≥1500	≥1500	≥1500	≥1500
Item number	1619 0000	1601 0000	1624 0000	1661 0000	1630 0000

Special Membranes

Bauder Super AL-E	Bauder KOMPAKT DSK	Bauder VA 4 (V 60 S4 + AL)	Bauder AG 4 (G 200 S4 + AL)	Bauder AG 5 (G 200 S5 + AL)	Bauder PONT EP 5 GA	Bauder FLEX TA 600
Special elastomer bitumen vapour barrier membrane	Special elastomer bitumen vapour barrier membrane for BauderKOM- PAKT system	Bitumen vapour barrier membrane	Bitumen vapour barrier membrane	Bitumen vapour barrier membrane	Elastomer bitumen water- proof sheeting under mastic asphalt	Elastomer bitumen sheeting as separation and equalising layer
Torch application	Pouring and rolling process	Torch application	Torch application	Torch application	Torch application	Laid loose
Mica finished	Mica finished	Mica finished	Mica finished	Mica finished	Sanded	Film
Film	Mica finished	Film	Film	Film	Film	Polyester mat
Aluminium-poly- ester combination + glass mat 60 g/m ²	Aluminium-poly- ester combination + glass mat 60 g/m ²	Aluminium-poly- ester combination + glass mat 60 g/m²	Aluminium strip and Glass fabric 200 g/m²	Aluminium strip and Glass fabric 200 g/m²	Polyester mat 250 g/m²	Polyester mat 180 g/m²
7.5	10	5	5	5	8	15
1	1	1	1	1	1	1
3.5	2.5	4	4	5	5	2.2
≤-25	≤-25	≤0	≤0	≤0	≤-25	≤-25
≥+70	≥+70	≥+70	≥+70	≥+70	≥+110	≥+120
Longitudinal ≥400 Transverse ≥300	Longitudinal ≥400 Transverse ≥300	Longitudinal ≥400 Transverse ≥300	≥1000	≥1000	500	Longitudinal 600 Transverse 450
≥2	≥2	≥2	≥2	≥2	35	25
≥1500	≥1500	≥1500	≥1500	≥1500		
1329 0000	1330 0000	1331 0000	1340 0000	1339 0000	1704 0000	1794 0000

Bitumen Membranes

Bituminous waterproof membranes, roofing and sealing layers - Technical Data - Summary

Bituminous waterproof membranes, roofing and sealing layers	Bauder G 5 (G 200 S 5)	Bauder G 4 (G 200 S 4)	Bauder V 60 S 4	BauderBIT G 200 DD	BauderBIT V 13
Description	Bituminous water- proof membrane	Bituminous water- proof membrane	Bituminous water- proof membrane	Bituminous waterproof roof membrane	Bitumen membrane
Application method	Torch application	Torch application	Torch application	Pouring and rolling process	
Upper Surface	Mica finished	Mica finished	Mica finished	Sanded	Sanded
Underside	Film	Film	Film	Sanded	Sanded
Reinforcement	Glass fabric 200 g/m²	Glass fabric 200 g/m²	Glass mat 60 g/m ²	Glass fabric 200 g/m ²	Glass mat 60 g/m²
Length (m) DIN EN 1848-1	5	5	5	10	10
Width (m) DIN EN 1848-1	1	1	1	1	1
Thickness (mm) DIN EN 1849-1	5	4	4	Approx. 3	Approx. 2.5
Cold-bending (°C) DIN EN 1109	≤0	≤0	≤0	≤0	≤0
Heat resistance (°C) DIN EN 1110	≥+70	≥+70	≥+70	≥+70	≥+70
Tensile behaviour: Max. tensile force (N / 50 mm) DIN EN 12311-1	≥1000	≥1000	Longitudinal ≥400 Transverse ≥300	≥1000	Longitudinal ≥400 Transverse ≥300
Tensile behaviour: Elongation (%) DIN EN 12311-1	≥2	≥2	≥2	≥2	≥2
Application type to DIN V 20000-201	DU/E2 G 200 S5	DU/E2 G 200 S4	DZ/E4 V 60 S4	DU/E2 G 200 DD	DZ/E4 V 13
Item number	1311 0000	1314 0000	1412 0000	0801 0000	0320 0000

BauderBIT R 500	BauderBIT R 333	BauderBIT R 500 N	BauderBIT R 333 N
Bitumen membrane with felt insert	Bitumen membrane with felt insert	Bitumen membrane with felt insert	Bitumen membrane with felt insert
Sanded	Sanded	Unsanded	Unsanded
Sanded	Sanded	Unsanded	Unsanded
Felt insert 500 g/m²	Felt insert 333 g/m²	Felt insert 500 g/m²	Felt insert 333 g/m²
10	10	20	20
1	1	1	1
0	≤0	≤0	⊴0
+70	+70	+70	+70
Longitudinal 300 Transverse 200	Longitudinal 250 Transverse 150	Longitudinal 350 Transverse 200	Longitudinal 250 Transverse 150
2	2	2	2
7830 0000	7831 0000	7860 0000	7861 0000

Wall barrier membrane
Bitumen membrane with felt insert
Sanded
Sanded
Felt insert 500 g/m²
10
Various widths
5
0
+70
Longitudinal 300 Transverse 200
2
11,5 cm: 0431 0000 17,5 cm: 0432 0000 24 cm: 0434 0000 30 cm: 0435 0000 36,5 cm: 0438 0000 50 cm: 0437 0000

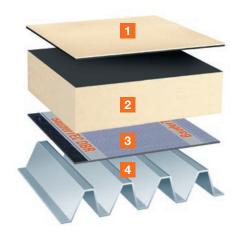
Synthetic Roofing Membranes FPO, PVC-P

Synthetic Roofing Membranes FPO	
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Flat roof system constructions - FPO

New build - examples*

Loose-laid, mechanically secured

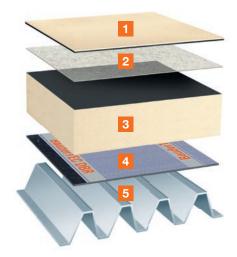


Example 10: New build, mechanically secured Lightweight industrial roof to DIN 18234, B_{ROOF} (t1)*

High quality single-layer synthetic waterproofing system (FPO) on PIR insulation material, mechanically secured, in accordance with the industrial building code.

1	Capping sheet layer	BauderTHERMOPLAN-T
2	Insulation material	BauderPIR FA
3	Vapour barrier	BauderTEC DBR
4	Structural deck	Trapezoidal sheet metal

^{*}B_{ROOF} (t3) specification in the area around openings is achieved by means of an additional glass mat insert of 120 gr.



Example 11: New build, mechanically secured Lightweight industrial roof to DIN 18234, B_{ROOF} (t3)

High quality single-layer synthetic waterproofing system (FPO) on PIR insulation material, mechanically secured, in accordance with the industrial building code.

1	Capping sheet layer	BauderTHERMOPLAN-T
2	Trennlage	Bauder Glass mat 120
3	Insulation material	BauderPIR FA
4	Vapour barrier	BauderTEC DBR
5	Structural deck	Trapezoidal sheet metal



Example 12: Waterproofing on timber Synthetic, FPO

High quality single-layer synthetic waterproofing system (FPO) on timber, mechanically secured or under an applied load.

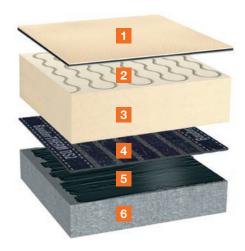
1	Capping sheet layer	BauderTHERMOPLAN-T SV 15 V
2	Structural deck	Timber boarding

^{*} Because of the wide range of Bauder system construction options for both new build and refurbishment, it is not possible to show all variants here. All system constructions shown here meet the requirements for "solid roofing" of DIN 18531 and the relevant specialist regulations. Your Bauder advisor will be pleased to advise you regarding other system construction combinations and to answer any questions that you may have.

Flat roof system construction - FPO

New build or refurbishment – examples*

Adhesive bonded or with applied ballast load



Example 13: New build, adhesive bonded FPO adhesive bonded

High quality single-layer synthetic waterproofing system (FPO) on various insulation materials, fully adhered.

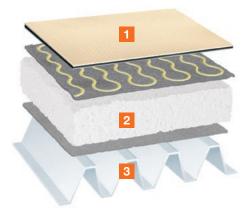
1	Capping sheet layer	BauderTHERMOPLAN-T SV 15 V			
2	Adhesive	Bauder Membrane adhesive 1014			
3	Insulation material	BauderPIR M / FA			
4	Vapour barrier	BauderTHERM DS 2			
5	Primer	Burkolit V			
6	Structural deck	Concrete			



Example 14: New build, with applied ballast load FPO greened

High quality single-layer synthetic waterproofing system on various insulation materials, under Green Roof landscaping.

1	Landscaping	Bauder green roof system as applied load			
2	Capping sheet layer	BauderTHERMOPLAN-T			
3	Insulation material	BauderPIR M / FA / T			
4	Vapour barrier	BauderTHERM DS 2			
5	Primer	Burkolit V			
6	Structural deck	Concrete			



Example 15: Overlay refurbishment of existing defective waterproofing system Synthetic, FPO

High quality single-layer synthetic waterproofing system (FPO) overlay to existing defective waterproofing system, adhered.

1	Waterproofing layer	BauderTHERMOPLAN-T SV 15 V
2	Existing water- proofing	No longer serviceable
3	Structural deck	Concrete / trapezoidal sheet metal / timber

FPO

BauderTHERMOPLAN-T

BauderTHERMOPLAN-T is a modern FPO waterproofing system of the very best quality. It sets high standards for safety, ease of laying and durability, with many years of outstanding and successful use.

Depending on the application, these versatile waterproofing membranes are available in three versions. They are made of an especially high-grade thermoplastic alloy of flexible polyolefins (FPO), are free from halogens, plasticisers and heavy metals and meet the highest specifications, while being very easy to install. Thanks to their wide range of compatibility, it is possible to dispense with additional separation layers in almost all situations.

BauderTHERMOPLAN-T combines dimensional stability, extensibility and the ability to withstand high mechanical loads with outstanding UV- and heat resistance. That means reliable working properties and good durability.



BauderTHERMOPLAN-T SV

are Single Ply roofing membranes produced in thicknesses of 1.2 to 2.0 mm and reinforced with a synthetic fabric. This gives them dimensional stability, high breaking strength, and an elongation at break which is exactly matched to their function. BauderTHERMOPLAN-T SV is suitable for loose-laid wind uplift resistant roof systems that are secured mechanically or by means of superimposed loads (ballast).

- BauderTHERMOPLAN-T SV with reinforcement of high tear strength
- cold flexibility down to -30°C
- robust and durable
- compatible with bitumen and polystyrene
- root-resistant in accordance with FLL guidelines

BauderTHERMOPLAN-T	SV 12	SV 15	SV 18	SV 20	SV 15 tapes
Nominal thickness	1.2 mm	1.5 mm	1.8 mm	2.0 mm	1.5 mm
Dimensions	1.5 x 25 m	1.5 x 20 m	1.5 x 20 m	1.5 x 20 m	0.2 x 20 m
Weight	Approx. 53 kg	Approx. 53 kg	Approx. 63 kg	Approx. 70 kg	Approx. 7 kg
Supplied as Pallet with	16 rolls 600 m ²	16 rolls 480 m ²	16 rolls 480 m ²	12 rolls 360 m ²	single rolls
Item/order number	6612 0000	6615 0000	6618 0000	6620 0000	6615 0200



More secure and quicker welded lap seal

The wide welding window of 380 - 480°C makes the hot-air welding of BauderTHERMOPLAN-T a very reliable process. All laps are sealed with great reliability and no danger of combustion.



Durable protection

BauderTHERMOPLAN-T is UV-stable and resistant to weathering and ageing. The high-grade FPO membranes will protect the roof for many years – either exposed, or also under superimposed ballast loads such as gravel, terracing slabs or a beneath green roof landscaping.



Highly versatile

BauderTHERMOPLAN-T is suitable for all lightweight roof substructures: in new build, for refurbishment, and for green roofs. The membranes are compatible with bitumen and resistant to root penetration as specified in FLL guidelines.



Ecological and easily recycled

As an FPO system with no volatile plasticisers, BauderTHERMOPLAN-T is emission-free and may be welded without smoke and odour. After decades as a serviceable water-proofing, the membranes may be recycled or processed to provide thermal energy without leaving residues.

BauderTHERMOPLAN-T - Technical data as required by DIN EN 13956

				-		
BauderTHERMOPL Tests/properties/unit	AN-T		SV 12	SV 15	SV 18	SV 20
Colour	Upper Surfac Underside	е	Pearl-white Black	Pearl-white Black	Pearl-white Black	Pearl-white Black
Roll dimensions	Standard	(m)	1,5 x 25 0,75 x 25 0,5 x 25	1,5 x 20 0,75 x 20 0,5 x 20	1,5 x 20 0,75 x 20 0,5 x 20	1,5 x 20 0,75 x 20 0,5 x 20
	Tapes	(m)		0,2 x 20		
Thickness overall DIN EN 1849-2		(mm)	1.2	1.5	1.8	2.0
Weight per unit area DIN EN 1849-2		(kg/m²)	1.5	1.8	2.2	2.3
Folding at low temper DIN EN 495-5	erature	(°C)	< -30	< -30	< -30	< -30
Maximum tensile for DIN EN 12311-2A	ce	(N/5 cm)	> 1000	> 1000	> 1100	> 1100
Elongation at maxim	um tensile force	(%)	> 19	> 19	> 19	> 19
Fire behaviour DIN EN ISO 11925-2			E	E	E	E
Behaviour under fire DINV ENV 1187 Teil 1*	from external so	urce	Compliant	Compliant	Compliant	Compliant
Resistance to shock DIN EN 12691	load	(mm)	> 500	> 650	> 900	>900
Dimensional stability DIN EN 1849-2	,	(%)	< 0.2	< 0.2	< 0.2	< 0.2

^{*} in various system constructions



FPO

BauderTHERMOPLAN-T Additional membranes

BauderTHERMOPLAN-T SV 15 V

is a 2.5 mm thick synthetic roofing membrane reinforced with a synthetic fabric and also laminated on the underside with a synthetic fleece. In addition to the proven properties of fabric-reinforced membranes, this makes possible bonding using PU adhesive as a safeguard against wind uplift. BauderTHERMOPLAN-T SV 15 V is suitable for both fully adhered and mechanically fixed roof systems.

BauderTHERMOPLAN-T TL

is a 1.5 mm thick non-reinforced synthetic roofing membrane. It has highly stretchable characteristics and is therefore complementary to BauderTHERMOPLAN-T SV for detail working.

BauderTHERMOPLAN-T Walkway

is a 2.0 mm thick non-reinforced synthetic membrane designed as an additional protective layer and maintenance path, embossed with integral non-slip surface. It is installed on top of the waterproofing layer as an accessory membrane.

BauderTHERMOPLAN-T SV 15 V				
Nominal thickness	1.5 mm			
Waterproofing membrane thickness	1.0 mm			
Dimensions	1.5 x 20 m			
Weight	62 kg			
Supplied as Pallet with	9 rolls 270 m²			
Item/order number	6715 0000			

BauderTHERMOPLAN-T	TL 15	TL 15
Nominal thickness	1.5 mm	1.5 mm
Dimensions	1.5 x 10 m	0.5 x 10 m
Weight	27 kg	9 kg
Supplied as	Individual rolls	Individual rolls
Item/order number	6600 0000	6600 0050

BauderTHERMOPLAN-T Walkway				
Nominal thickness	2,0 mm			
Dimensions	0.75 x 20 m			
Weight	29 kg			
Supplied as	Individual rolls			
Item/order number	6122 0750			

BauderTHERMOPLAN-T Additional membranes - Technical data as required by DIN EN 13956

BauderTHERMOPLAN-T Tests/properties/unit	SV 15 V	TL 15	Walkway
Colour Upper Surface Underside	Pearl-white White (mat)	Pearl-white Black	Dark grey Dark grey
Roll dimensions Standard (n) 1.5 x 20	1.5 x 10 0.5 x 10	0.75 x 20
Thickness overall (m	n) 1.5	1.5	2.0
Weight per unit area (kg/r	^{n²)} 2.1	1.7	2.2
Folding at low temperature (SDIN EN 495-5	C) < -30		
Maximum tensile force (N/5 c	m) > 1100		
Elongation at maximum tensile force (DIN EN 12311-2A	> 19		
Fire behaviour DIN EN ISO 11925-2	Е	Е	Е
Behaviour under fire from external source DINV ENV 1187 Teil 1*	Compliant		
Resistance to shock load (m	n) > 800		> 1000
Dimensional stability (DIN EN 1849-2	< 0.2	< 0.6	< 0.6

^{*} in various system constructions

FPO

BauderTHERMOPLAN-T - Accessories

Bauder Cleaner/Lap Seam Activator-T

for lap seam preparation and cleaning of BauderTHERMOPLAN-T membranes



Set	
Equipment and material	Special bucket with dry cleaning cloth PE protective glove and 5 litres cleaner/seam activator-T
Storage	Shelf life: 12 months at 5 – 30°C
Colour	Clear
Consumption	Approx. 5 litres / 500 m² roof surface
Hazard warning	Highly flammable, irritant
Packaging unit	1 special bucket + 1 canister
Weight Set	6.5 kg
Item/order number	6550 0000

Components					
	5 litres Cleaner/Lap Seam Activator-T	Cleaning cloth 1 roll (400 pieces)	Protective glove 100 gloves		
Item/order number	6550 0005	6551 0000	6552 0000		

Bauder Contact Adhesive-T

for the contact adhesion of BauderTHERMOPLAN-T membranes to concrete, masonry, metal and plastic.



Material	synthetic rubber in organic solvents			
Colour	Yellowish			
Viscosity	3500	mPas		
Consumption	On average 300 g/m ²			
Time required to evaporate	At least 30 minutes			
Open time	0,5 - 24 hours			
Storage	12 months at 5 - 30°C			
Hazard warning	Highly flammable			
Weight	4.5 kg/container 10 kg/container			
Item/order number	6560 0045	6560 0010		

Bauder Membrane Adhesive 1014

for adhering fleece-laminated membranes to BauderPIR FA, BauderPIR M, bitumen, EPS and concrete



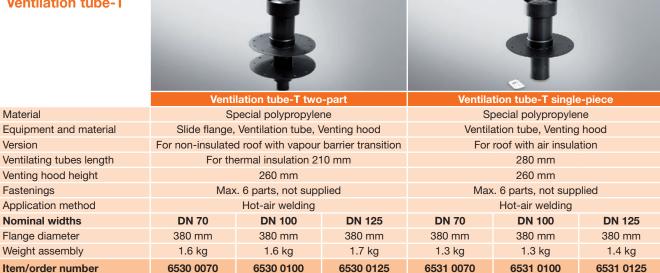
Material	Single-component PU adhesive			
Colour	Yello	wish		
Viscosity	4200	mPas		
Consumption	On average 300 g/m², depending on calculation			
Open time	0 - 8 minutes			
Storage	12 months at 5 - 30°C			
Weight	2.0 kg/container	10 kg/container		
Packaging unit	6 cans/carton 1 can			
Item/order number	6940 0000	6940 0100		

For Bauder vapour barriers, separation and protective layers, see page 38

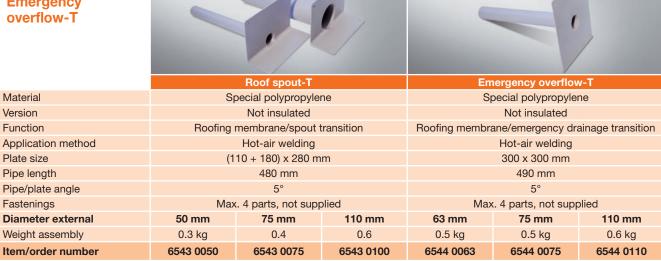
FPO

BauderTHERMOPLAN-T - Accessories

Ventilation tube-T



Roof spout-T Emergency



Refurbishment outlet-T



Material		Special polypropylene					
Equipment and material		G	ully, leaf/gravel cat	tcher basket, 'O'rir	ng		
Version			Not ins	sulated			
Function		Roofing me	mbrane/refurbishr	nent – retrospectiv	e installtion		
Application method			Hot-air	welding			
Flange diameter		≥ 300 mm					
Pipe length			315	mm			
Fastenings			Max. 8 parts,	not supplied			
Diameter external	63 mm	63 mm 75 mm 90 mm 110 mm 125 mm 160 mm					
Weight assembly	0.4 kg	0.4 kg 0.5 kg 0.7 kg 0.8 kg 0.8 kg 1.0 kg					
Item/order number	6542 0063	6542 0075	6542 0090	6542 0110	6542 0125	6542 0160	

Use

Weight assembly

Item/order number

BauderTHERMOPLAN-T - Accessories

Mouldings Corners Pre-formed Inside corner-T Material Special polypropylene Angle Angle 90° Application method Hot-air welding Hot-air welding

Corner design, may be used on both sides

0.1 kg

6502 0000

Corner design, may be used on both sides

0.1 kg

6501 0000

Mouldings Openings			0	
	Multi-flange-T	Anchorage mount-T	Pipe m	ount-T
Material	Special polypropylene	BauderTHERMOPLAN-T BauderTHERMOPL Roofing membrane Roofing membra		
Height	200 mm	345 mm	345	mm
Diameter	10 mm / 20 mm	80 mm	50 mm	110 mm
Application method	Hot-air welding	Hot-air welding	Hot-air	welding
Use	Bushing for lightning conductor, cable, securant 16 mm			nting of pipes
Weight assembly	0.1 kg	0.1 kg	0.1 kg	0.15 kg
Item/order number	6503 0001	6504 0076	6504 0050	6504 0110

Other accessories					
	Composit	te sheet-T	Mounting rail 6/10	Round cord -T	Gravel catcher rail AL 100/80
Description	Membrane thickness 0.6 mm Foil thickness 0.8 mm		Alternating perforation 6.5 mm / 10 mm; hole spacing 25 mm	Additional securing Edge fixing	Fixing: plastic membrane strips, all 50 cm
Material	Hot galvanised steel, zinc plating 275 g/m ²		Hot galvanised steel, zinc plating 275 g/m²	FPO clear transparent	Aluminium 1.5 mm
Use		ves, valley ansitions	Valley fixing, flat surface fixing	Clamping behind mounting rail 6/10	Gravel catching Green roof separation
Application method	Hot-air	welding		Hot-air welding	
Dimensions	Sheet 1 x 2 m	Coil 1 x 30 m	Width 30 mm Length 4,5 m	ø 4 mm	100 mm / 80 mm (may be used on both sides), Length 2,5 m
Weight	10 kg/sheet	178 kg/coil	3.5 kg/rail	1.2 kg/container	1.7 kg
Packaging unit	30 sheets/ pack	1 coil	100 rails/pack	100 m	46 rails/pack
Item/order number	6510 0014	6511 0014	6920 0000	6500 0000	6930 0002

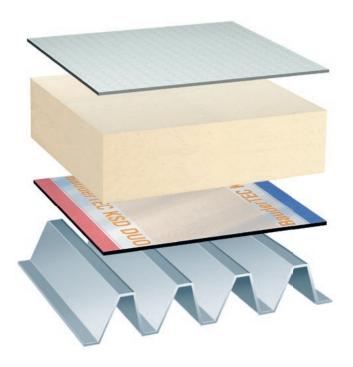
PVC-P

BauderTHERMOFOL M

Single-layer waterproofing with Bauder THERMOFOL meets all current standard specifications and facilitates reliable installation for new build, but also for refurbishment or repair.

BauderTHERMOFOL M

are synthetic roofing membranes for loose laying, mechanically secured, produced in thicknesses of 1.2 to 2.0 mm and reinforced with a synthetic fabric. This gives them dimensional stability, high strength, and an elongation that is exactly matched to their function. BauderTHERMOFOL M is used solely for mechanically fixed applications.



BauderTHERMOFOL	M 15	M 18	M 20
Nominal thickness	1.5 mm	1.8 mm	2.0 mm
Dimensions	1.5 x 20 m	1.5 x 20 m	1.5 x 20 m
Weight	55 kg	66 kg	73 kg
Supplied as Pallet with	16 rolls 480 m²	16 rolls 480 m²	12 rolls 360 m²
Item/order number	6315 0000	6318 0000	6320 0000

BauderTHERMOFOL M - Technical data as required by DIN EN 13956

BauderTHERMOFOL Tests/properties/unit		M 15	M 18	M 20
Colour Upper Surface Underside		Light-grey Black	Light-grey Black	Light-grey Black
Roll dimensions Standard	(m)	1.5 x 20 0.75 x 20 0.5 x 20	1.5 x 20 0.75 x 20 0.5 x 20	1.5 x 20 0.75 x 20 0.5 x 20
Thickness overall DIN EN 1849-2	(mm)	1.5	1.8	2.0
Weight per unit area DIN EN 1849-2	(kg/m²)	1.92	2.3	2.56
Folding at low temperature DIN EN 495-5	(°C)	-30	-30	-30
Maximum tensile force (N/5 cm) DIN EN 12311-2A		≥ 1000	≥ 1000	≥ 1000
Elongation at maximum tensile force DIN EN 12311-2A	(%)	> 19	> 19	> 19
Fire behaviour DIN EN ISO 11925-	2	E	E	E
Behaviour under fire from external so DINV ENV 1187 Teil 1*	ource	Compliant	Compliant	Compliant
Resistance to shock load DIN EN 12691	(mm)	> 400	> 500	> 600
Dimensional stability DIN EN 1849-2	(%)	< 0.3	< 0.3	< 0.3

PVC-P

BauderTHERMOFOL U

BauderTHERMOFOL U

are universal synthetic roofing membranes, produced in thicknesses of 1.5 to 2.4 mm and reinforced with a synthetic fabric. In addition these roofing membranes are root-resistant to FLL guidelines and resistant to micro-organisms. BauderTHERMOFOL U is suitable for roof systems which are loose laid, mechanically fixed, or secured against wind uplift through superimposed loads (ballast).

BauderTHERMOFOL U 15 - Tapes

are pre-cut cover strips for covering mounting rails and for the vertical overlapping of fleece-laminated membranes.

BauderTHERMOFOL U 15 V

is a 2.5 mm thick PVC-P synthetic roofing membrane reinforced with a synthetic fabric and also laminated on the underside with a synthetic fleece. In addition to the proven properties of fabric-reinforced membranes, this makes bonding possible using Bauder membrane adhesive 1014 as a safeguard against wind uplift. BauderTHERMOFOL U 15 V is suitable for both fully adhered and also mechanically fixed roof systems.

BauderTHERMOFOL	U 15	U 18	U 20	U 24	U 15 - Tapes	U 15 V
Nominal thickness	1.5 mm	1.8 mm	2.0 mm	2.4 mm	1.5 mm	1.5 mm
Waterproofing membrane thickness	-	-	-	-	-	1.0 mm
Dimensions	1.5 x 20 m	1.5 x 20 m	1.5 x 20 m	1.5 x 15 m	0.2 x 20 m	1.5 x 20 m
Weight	55 kg	66 kg	73 kg	66 kg	7 kg	63 kg
Supplied as Pallet with	16 rolls 480 m ²	16 rolls 480 m ²	12 rolls 360 m ²	12 rolls 270 m ²	Individual rolls	9 rolls 270 m ²
Item/order number	6115 0000	6118 0000	6120 0000	6124 0000	6115 5000	6215 0000

BauderTHERMOFOL U - Technical data as required by DIN EN 13956

BauderTHERMOFO Tests/properties/unit	DL		U 15	U 18	U 20	U 24	U 15 V
Colour	Upper Surfac Underside	ce	(*see below) Mid-grey	Light-grey Mid-grey	Light-grey Mid-grey	Light-grey Mid-grey	Light-grey White (mat)
Roll dimensions	Standard	(m)	1.5 x 20 0.75 x 20 0.5 x 20	1.5 x 20 0.75 x 20 0.5 x 20	1.5 x 20 0.75 x 20 0.5 x 20	1.5 x 15 0.75 x 15 0.5 x 15	1.5 x 20
	Tapes	(m)	0.2 x 20				
Thickness overall	DIN EN 1849-2	(mm)	1.5	1.8	2.0	2.4	1.5
Weight per unit area	DIN EN 1849-2	(kg/m²)	1.92	2.3	2.56	3.07	2.2
Folding at low temp DIN EN 495-5	erature	(°C)	-30	-30	-30	-30	-30
Maximum tensile for (N/5 cm) DIN EN 12311-2A	rce		> 1000	> 1000	> 1000	> 1000	> 1000
Elongation at maxim	num tensile for	ce (%)	> 20	> 20	> 20	> 20	> 20
Fire behaviour	DIN EN ISO 1192	25-2	Е	Е	Е	Е	Е
Behaviour under fire DINV ENV 1187 Teil 1*	from external	source	Compliant	Compliant	Compliant	Compliant	Compliant
Resistance to shock lo	oad	(mm)	> 400	> 500	> 600	> 800	> 700
Dimensional stability	/ DIN EN 1849-2	(%)	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

PVC-P

BauderTHERMOFOL Additional membranes

BauderTHERMOFOL D

is a 1.5 mm thick non-reinforced synthetic roofing membrane. It has highly stretchable characteristics and is therefore complementary to BauderTHERMFOL U and M for detail working.

BauderTHERMOFOL D 15 Tests/properties/unit				
Colour	Upper Surfa Underside	ice	Light-grey Dark grey	
Roll dimensions	Standard	(m)	1.5 x 10 0.5 x 10	
Thickness overall		(mm)	1.5	
Weight per unit area DIN EN 1849-2	(1	kg/m²)	1.7	
Fire behaviour DIN EN ISO 11925-2			E	
Welding temperature DIN EN 1849-2		(°C)	480 - 550	
Dimensional stability DIN EN 1849-2		(%)	< 0.6	
Dimensions			1.5 x 10 m	
Item/order number			6100 0000	
Dimensions			0.5 x 10 m	
Item/order number			6100 0099	

BauderTHERMOFOL Walkway Membrane

is a 2.0 mm thick non-reinforced synthetic membrane designed as an additional protective layer and maintenance path, embossed with an integral non-slip surface. It is laid on top of the waterproofing layer as an accessory membrane.

BauderTHERMOFOL	Walkway M	lombranc	
Tests/properties/unit	waikway ivi	iembrane	
Colour	Upper Sur Underside	face	Dark grey Dark grey
Roll dimensions	Standard	(m)	0.75 x 20
Thickness overall		(mm)	2.0
Weight per unit area DIN EN 1849-2		(kg/m²)	2.2
Fire behaviour DIN EN ISO 11925-2			Е
Resistance to shock load DIN EN 12691	t	(mm)	>700
Dimensional stability DIN EN 1849-2		(%)	< 0.6
Nominal thickness			2.0 mm
Dimensions			0. 075 x 20 m
Weight			33 kg
Supplied as			Individual rolls
Item/order number			6121 9750

PVC-P

BauderTHERMOFOL Accessories

BauderTHERMOFOL Accessories also cover systems U and M.

Bauder Cleaner PVC

for the cleaning of BauderTHERMOFOL membranes and accessories



Set	
Equipment and material	Special bucket with dry cleaning cloth PE protective glove and 5 litres PVC cleaner
Storage	Shelf life: 12 months at 5 – 30°C
Colour	Clear
Consumption	Approx. 5 litres / 1000 m² roof surface
Hazard warning	Highly flammable, irritant
Packaging unit	1 special bucket + 1 canister
Weight Set	6.5 kg
Item/order number	6050 0000

Components					
	Cleaner PVC 1 litres	Cleaner PVC 5 litres	Cleaner PVC 10 litres	Cleaning cloth, 1 roll (400 Parts)	Protective glove 100 gloves
Item/order number	6050 0001	6050 0005	6050 0010	6551 0000	6552 0000

Bauder PVC Contact Adhesive

for the contact adhesion of BauderTHERMOFOL membranes to concrete, masonry, metal and plastic.



Material	Synthetic rubber in organic solvents					
Colour	Yellowish					
Viscosity	3500 mPas					
Consumption	On average 300 g/m ²					
Time required to evaporate	At least 30 minutes					
Open time	0.5 - 24 hours					
Storage	12 months at 5 - 30°C					
Hazard warning	Highly flammable					
Weight	4.4 kg/container 8.9 kg/container					
Item/order number	6057 0044	6057 0089				

Bauder Membrane Adhesive 1014

for the bonding of fleece-laminated membranes to BauderPIR FA, BauderPIR M, bitumen, EPS and concrete



Material	Single-component PU adhesive					
Colour	Yellowish					
Viscosity	4200 mPas					
Consumption	On average 300 g/m², depending on calculation					
Open time	0 - 8 minutes					
Storage	12 months at 5 - 30°C					
Weight	2.0 kg/container 10 kg/container					
Packaging unit	6 cans/carton 1 can					
Item/order number	6940 0000	6940 0100				

PVC Solvent bonding agent

Contents	1 litre	5 litres	10 litres
Item/order number	6055 0001	6055 0005	6055 0010

PVC Seam securing agent (light-grey)

Item/order number	6056 0001	6056 0005	6056 0010
Contents	1 litre	5 litres	10 litres

PVC-P

BauderTHERMOFOL - Accessories

Ventilation tube **PVC**

Ventilation tube length Venting hood height

Application method

Nominal widths

Weight assembly

Item/order number

Material

Fastenings

Flange size

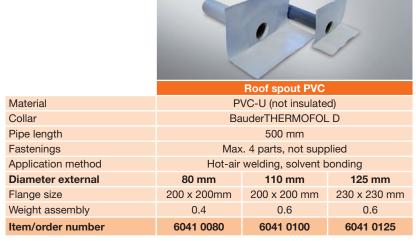
Collar



Venting hood PVC



Roof spout PVC



PVC-P

BauderTHERMOFOL - Accessories

Mouldings PVC Corners

Material

Colour:

Use/Application

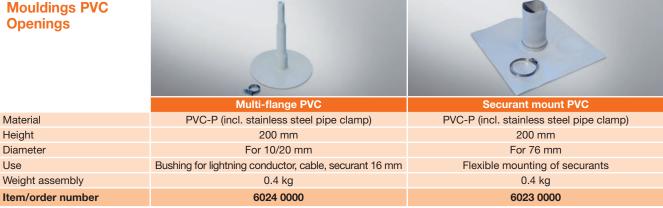
Weight assembly

Item/order number

Angle



Mouldings PVC Openings



Other accessories PVC						The same of the sa	
	Composite sheet PVC FB 12				Round cord PVC		
Description	Sheet thickness 0.6 mm Foil thickness 0.6 mm (Colour: light-grey)		Foil thickness 0.6 mm Foil thickness 0.8 mm		Alternating perforation 6.5 mm / 10 mm; hole spacing 25 mm	Additional securing Edge fixing	
Material	Hot galvanised steel, zinc plating 275 g/m ²		Hot galvanised steel, zinc plating 275 g/m²	Hot galvanised steel, zinc plating 275 g/m²	PVC-P light-grey		
Use	Verge, eaves, valley fixing, transitions		Verge, eaves, valley fixing, transitions	Valley fixing, flat surface fixing	Clamping behind mounting rail 6/10		
Application method	Hot-air welding, solvent bonding		Hot-air welding, solvent bonding	Hot-air welding	Hot-air welding		
Dimensions	Sheet Coil 1 x 2 m 1 x 30 m		Sheet 1 x 2 m	Width 30 mm Length 4.5 m	ø 4 mm		
Weight	10 kg/sheet 178 kg/coil		12 kg/sheet	3.5 kg/rail	1.8 kg/container		
Packaging unit	30 sheets/ pack	1 coil	30 sheets/pack	100 rails/pack	100 m		
Item/order number	6010 0012	6011 0012	6010 0014	6920 0000	6000 0000		

FPO and PVC-P - Accessories PE vapour barriers, separation and protective layers

Bauder vapour barriers

	Vapour barrier 32	Vapour barrier 20
Use	In combination with FPO or PVC	In combination with PVC
Sd value	Sd ≥ 240 m	Sd ≥ 100 m
Material	Special PE to DIN EN 13984	Special PE to DIN EN 13984
Colour	Blue	Blue
Membrane thickness	0.32 mm	0.20 mm
Building material class	B2	B2
Application method	Loose laying, transition with adhesive tapes	Loose laying, transition with adhesive tapes
Width	4.0 m	4.0 m
Length	25 m	25 m
Weight	0.30 kg/m ² ±7%	0.19 kg/m ² ±7%
Packaging unit	100 m²/roll	100 m ² /roll
Item/order number	6900 0040	6900 0025

Bauder adhesive tapes (for PE vapour barrier)

	Connecting adhesive tape 03	Transition adhesive tape 20
Material	Polypropylene	Butyl rubber
Colour	Milky-white	Black
Thickness	0.3 mm	2.0 mm
Width	38 mm	15 mm
Length	50 m	30 m
Consistency	Firm, adhesive both sides	Plasto-elastic
Use	Overlap bonding	Component fixing
Packaging unit	1 roll	1 roll
Item/order number	6900 0003	6900 0020

Bauder Separation and protective layers

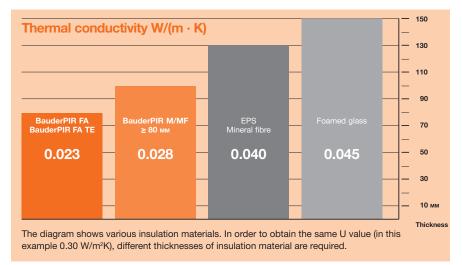
	Bauder Glass mat GV 120	Bauder Protective membrane W 300	Bauder Protective membrane WB 300
Application	Fire protection layer for various roof systems	Protective layer on timber, beneath wear layers	Protective layer on concrete – may be drilled
Material	Basic glass mat 120 g/m ²	Polyester fibre membrane 300 g/m²	Reinforced polyester fibre membrane 300 g/m²
Colour	White	White	White
Thickness	Approx. 0.75 mm	Approx. 3.0 mm	Approx. 2.0 mm
Building material class	B2	B2	B2
Application method	Loose laying	Loose laying	Loose laying
Width	2 m	2 m	2 m
Length	100 m	60 m	60 m
Weight	0.12 kg/m ²	0.3 kg/m²	0.3 kg/m ²
Packaging unit	200 m ² /roll	120 m²/roll	120 m²/roll
Item/order number	6098 0000	6900 1301	6900 1310

Insulation Materials: Polyurethane (Polyisocyanurate) BauderPIR

BauderPIR Insulation panels and Accessories	
Flat roof insulation panels with laminated surfaces	
BauderPIR M/MF	4
BauderPIR FA	4
Flat roof insulation panels (block foam) Sloping panels / flat panels	
BauderPIR T	4
BauderKOMPAKT flat roof system	
BauderPIR KOMPAKT	
BauderPIR KOMPAKT flat panels	4
BauderPIR KOMPAKT sloping insulation panels	4
BauderPIR KOMPAKT valley and roof hip panels	4
Terrace/floor insulation panels	
BauderPIR FA-TE	4
Decide DID D	,

Insulation Materials: Polyurethane (Polyisocyanurate) BauderPIR – The thermal insulation material with convincing benefits

Bauder is one of the major producers of polyurethane rigid foam, an insulation material with outstanding quality characteristics. At a time when, for reasons of environmental protection and energy-saving, ever more demanding specifications are being set for thermal insulation, this product made by Bauder under the registered trade name BauderPIR has become an indispensable material.



Extremely high insulation performance ensures high energy saving

Polyurethane rigid foam is the insulation material with the lowest thermal conductivity rating. It meets the requirements of the Energy Saving Regulations even with quite low levels of insulation material thickness.

Thanks to its special properties, BauderPIR has proved its outstanding resilience over many years. Especially on flat roofs, where fluctuating temperatures are a constant factor. This is of major importance for the safety and durability of a building.

BauderPIR panels may be cut (knife or saw), drilled, screwed, nailed and bonded using simple tools and to the correct dimensions.

BauderPIR – resistant and durable

BauderPIR is compatible with virtually all customary building materials.
BauderPIR Hartschaum does not rot, is biologically resistant, and physiologically harmless.

BauderPIR - varied in design

BauderPIR comes in different versions for a wide variety of applications. For flat roofs there are un-laminated insulation panels (BauderPIR T), together with flat panels with mineral sheet laminated facings (BauderPIR M) also aluminium lamination (BauderPIR FA and BauderPIR FA TE).

BauderPIR T Cut-to falls – for directed roof drainage

BauderPIR T cut-to-falls panels are non-laminated insulation boards with an integral slope. This makes it possible to provide simple and cost-effective thermal insulation, together with adequate roof falls. BauderPIR T cut-to-falls panels are the ideal insulation material for any task, from the provision of a non-slip surface on the flat roof to that of withstanding extremely high loads.

Bauder PIR Kompakt roof system – fully bonded over the whole surface.

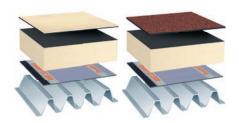
BauderPIR Kompakt is a flat roof system in which the waterproofing layers and the thermal insulation material are bonded together and to the substrate, to form a compact, homogeneous waterproof envelope. No additional mechanical reinforcement is necessary.

The Bauder Kompakt roof system provides extremely high security against water ingress and wind uplift. There can be no undermining of the seal in the event of damage, and the consequences of any physical damage remain confined to the immediate area. The great elasticity of the BauderFLEX adhesive compound ensures, to a certain extent, the automatic sealing of damaged areas.



BauderPIR: The solution conforming to DIN 18234 (Industrial Construction Guidelines)

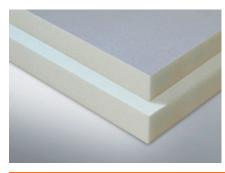
Everything from a single source – with Bauder lightweight roof systems. With BauderPIR FA, Bauder offers you not just the optimal thermal insulation for lightweight industrial roofs. In addition, all other system components such as vapour barriers and waterproof membranes meet every specification – they are tested and approved for. For waterproofing, you have a choice between synthetic (plastic) or bitumen. Bauder covers every material option.



Bauder system solution for lightweight industrial roofs, with single-layer synthetic or single-layer bitumen waterproofing (see also pages 5 and 8).

Insulation Materials: Polyurethane (Polyisocyanurate)

BauderPIR



BauderPIR M/MF

Flat roof insulation panels with a laminate of mineral sheet facing on both sides.

PIR index	> 250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m \cdot K)	0.028 ≥ 120 mm, 0.027 80-120 mm, 0.026 < 80 mm
Compressive strength	≥120 kPa (≥0.12 N/mm²)
Panel size	1200 x 600 mm
Fitting dimensions (nur MF)	1185 x 585 mm

BauderPIR M (BauderPIR M (without rebate)									
Thickness	20 mm	30 mm	40 mm	50 mm	60 mm	80 mm	100 mm	-	-	-
Area/pack	16.56 m ²	11.52 m ²	8.64 m ²	7.20 m ²	5.76 m ²	4.32 m ²	3.60 m ²	-	-	-
Item/order number	4800 0020	4800 0030	4800 0040	4800 0050	4800 0060	4800 0080	4800 0100	-	-	-

BauderPIR MF	(with rebate	∍)								
Thickness	40 mm	50 mm	60 mm	80 mm	100 mm	120 mm	140 mm	160 mm	180 mm	200 mm
Area/pack	8.64 m ²	7.20 m ²	5.76 m ²	4.32 m ²	3.60 m ²	2.88 m ²	2.16 m ²	2.16 m ²	1.44 m²	1.44 m ²
Item/order number	4810 0040	4810 0050	4810 0060	4810 0080	4810 0100	4810 0120	4810 0140	4810 0160	4810 0180	4810 0200



BauderPIR FA

Flat roof insulation panels with laminated facings of aluminium to both sides, with rebate.

PIR index	> 250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m \cdot K)	0,023
Compressive strength	≥120 kPa (≥0.12 N/mm²)
Panel size	2400 x 1200 mm
Fitting dimensions	2385 x 1185 mm

BauderPIR FA								
Thickness	60 mm	80 mm	100 mm	120 mm	140 mm	160 mm	180 mm	200 mm
Area/pack	14.4 m ²	11.52 m ²	8.64 m ²	5.76 m ²				
Item/order number	4519 0060	4519 0080	4519 0100	4519 0120	4519 0140	4519 0160	4519 0180	4519 0200

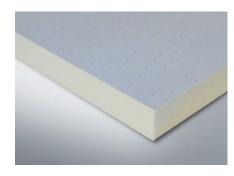


BauderPIR T Cut-to-falls/flat panels

Cut-to falls insulation panels with no laminate facings (block foam surface) or rebate.

	Cut-to-falls panels	flat panels				
PIR index	>250					
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 1350					
Thermal conductivity W/(m · K)	0.028 < 80 mm, 0.027 80-	120 mm, 0.026 ≥ 120 mm				
Compressive strength	≥120 kPa (≥0.12 N/mm²)					
Panel size	1200 x 800 mm, sloping on top					
Thickness	From 20 mm/30 mm, up to 300 mm other thicknesses and special gradients on request					
Item/order number	9611 0033	9611 2033				
	Valley panels 800 x 800 mm	Roof hip panels 800 x 800 mm				
Item/order number	9613 3033	9613 5033				

Insulation Materials: Polyurethane (Polyisocyanurate) BauderPIR KOMPAKT Insulation panels



BauderPIR KOMPAKT flat panels

Special insulation panels for the BauderPIR compact roof system (for bonding in BauderFLEX adhesive compound). With special fleece lamination on both sides, increased density, without rebate.

PIR index		>250						
Fire behaviour	B 2 as defined in	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1						
Thermal conductivity W/(m · K)	0.028 < 80	0.028 < 80 mm, 0.027 80-120 mm, 0.026 ≥ 120 mm						
Compressive strength	≥150 kPa (≥0.15 N/mm²)							
Panel size		600 x 600 mm						
Thickness	100 mm	100 mm 120 mm 140 mm 160 mm						
Area/pack	3.60 m ²	2.16 m ²						
Item/order number	4840 0100	4840 0120	4840 0140	4840 0160				



BauderPIR KOMPAKT Cut-to-falls panels

Cut-to-falls insulation panels for the Bauder PIR compact roof system, with no outer layer or rebate, and increased density. Standard gradient 2%

PIR index	>250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m · K)	0.028 < 80 mm, 0.027 80-120 mm, 0.026 ≥ 120 mm
Compressive strength	≥150 kPa (≥0.15 N/mm²)
Panel size	600 x 600 mm, sloping on top
Thickness	From 20 mm/30 mm upwards
Item/order number	9612 0040



BauderPIR KOMPAKT valley and roof hip panels

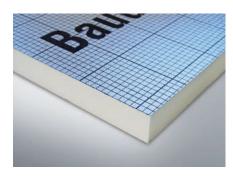
Special cut-to-falls insulation panels for the BauderPIR compact roof system.

PIR index	>250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m · K)	0.028 < 80 mm, 0.027 80-120 mm, 0.026 ≥ 120 mm
Compressive strength	≥150 kPa (≥0.15 N/mm²)
Panel size	600 x 600 mm, all thicknesses, sloping on top

	Valley panels	Roof hip panels
Item/order number	9612 3040	9612 5040

Insulation Materials: Polyurethane (Polyisocyanurate)

Terrace / floor insulation panels

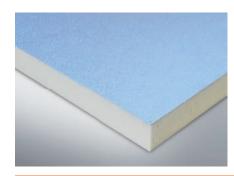


BauderPIR FA-TE

Terrace insulation panels with greater compressive strength. Aluminium laminated faced, without rebate.

PIR index	> 250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m · K)	0.023
Compressive strength	≥120 kPa (≥0.12 N/mm²)
Panel size	1200 x 600 mm

BauderPIR FA TE								
Thickness	20 mm	30 mm	40 mm	50 mm	60 mm	70 mm	80 mm	100 mm
Area/pack	16.56 m ²	11.52 m ²	8.64 m ²	7.20 m ²	5.76 m ²	5.04 m ²	4.32 m ²	3.60 m ²
Item/order number	4400 4020	4400 4030	4400 4040	4400 4050	4400 4060	4400 4070	4400 4080	4400 4100



BauderPIR B

Floor insulation panels with aluminium laminated facings, and no rebate.

PIR index	> 250
Fire behaviour	B 2 as defined in DIN 4102; Klasse E as defined in DIN EN 13501-1
Thermal conductivity W/(m · K)	0.023
Compressive strength	≥100 kPa (≥0.10 N/mm²)
Panel size	1200 x 600 mm

BauderPIR B								
Thickness	20 mm	30 mm	40 mm	50 mm	60 mm	70 mm	80 mm	
Area/pack	16.56 m ²	11.52 m ²	8.64 m ²	7.20 m ²	5.76 m ²	5.04 m ²	4.32 m ²	
Item/order number	4400 0020	4400 0030	4400 0040	4400 0050	4400 0060	4400 0070	4400 0080	



