

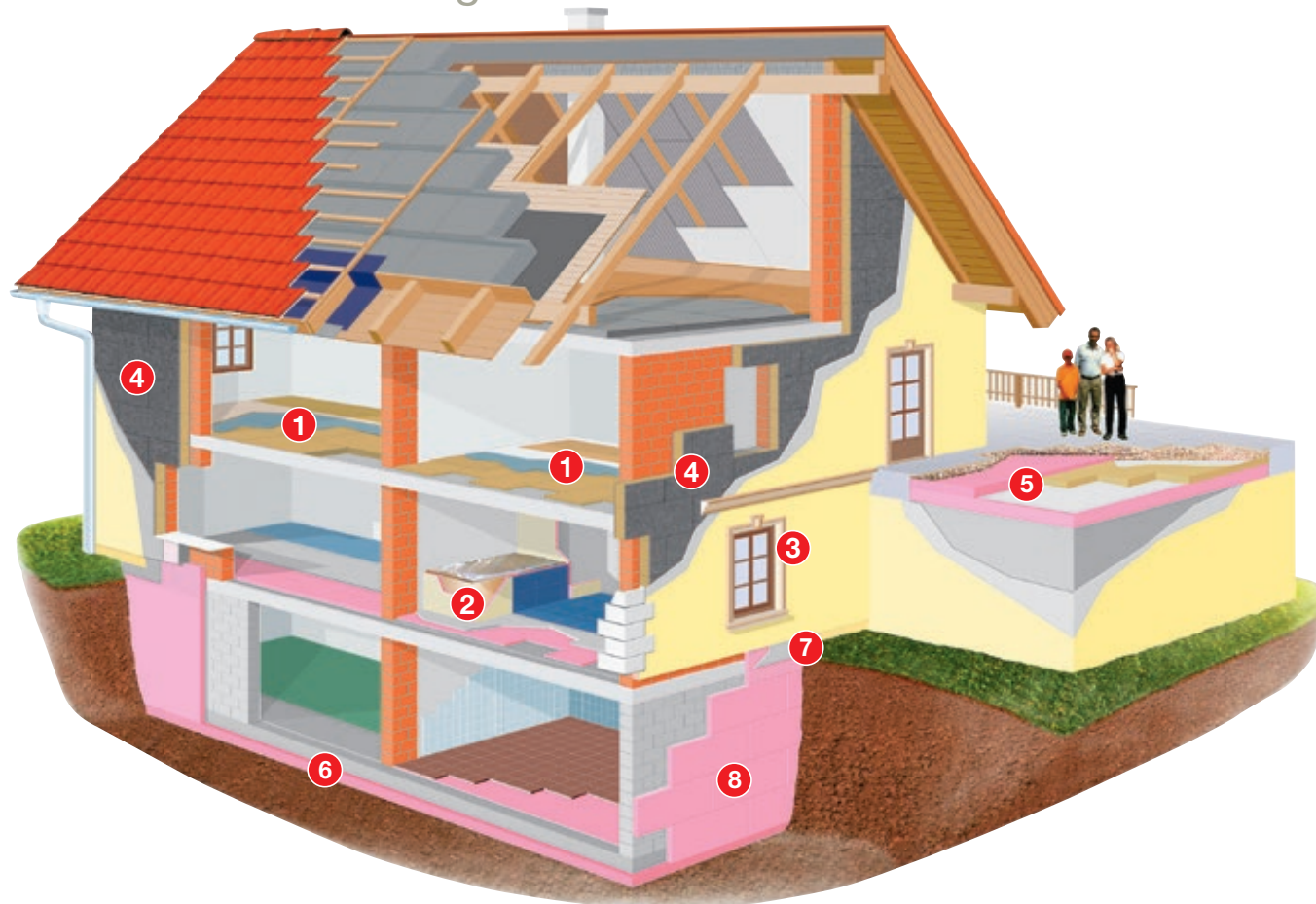
Perfect insulation from cellar to roof



- ▶ Outstanding thermal insulation
- ▶ Maximum energy savings
- ▶ The future of thermal insulation

Over 60 years of expertise in insulating materials

Austrotherm insulating materials



1 Floor insulation:

Austrotherm Resolution® floors
Austrotherm edging strips or
Austrotherm PE foam foil

2 Sanitary area:

Austrotherm UNIPLATTE®

3 Window and facade construction:

Austrotherm facade profiles

4 Facade insulation:

Austrotherm Resolution® facade

5 Flat roof:

Austrotherm XPS® Premium 30 SF
Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® TOP 30
Austrotherm XPS® TOP 50
Austrotherm XPS® TOP 70
Austrotherm Resolution® flat roof

6 Underneath the foundation plate/interior cellar insulation:


Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® TOP 50
Austrotherm XPS® TOP 70
Austrotherm Foundation Plate
Insulating System


7 Base insulation:

Austrotherm XPS® TOP P TB GK
Austrotherm XPS® TOP P


8 Exterior cellar insulation:


Austrotherm XPS® Premium 30 SF
Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® TOP 30
Austrotherm XPS® TOP 50
Austrotherm XPS® TOP 70


 Insulation of the exterior cellar wall = perimeter insulation


 Insulation on flat roofs


 Insulation underneath the floor plate


 Base insulation


 Insulation of the cellar wall interior

 Insulation for wet rooms and in dividing walls

 Facade insulation

 Insulation of window and door jambs

 Floor insulation

 Above rafter insulation

Minimum heating costs in the low-energy and passive home



Austrotherm plant in Wittenberge, Germany

Quality from Germany providing reduced heating costs

With Austrotherm®'s high quality products, which have been produced in its newly established plant in Wittenberge since the end of 2013, it is easy to meet the high requirements of efficient low-energy and passive homes. While correctly insulated low-energy homes already create low heating costs, passive homes eliminate the need for an active heating system entirely. Perfect insulation not only protects against the cold in winter, but also keeps out the heat in summer and thus creates the perfect room climate all year round.

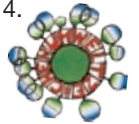
Austrotherm® is a Climate Alliance company

Active environmental protection is a major concern for Austrotherm®. As such, the Austrotherm plant in Pinkafeld has been part of the Climate Alliance since October 1st, 2014.



Eco-label for Austrotherm XPS® TOP

The Austrotherm XPS® TOP uses air as its cell content, meaning that it has outstanding ecological properties. For this reason, Austrotherm XPS® TOP has been awarded with the eco-label by the Austrian Ministry of Environment for particularly environmentally friendly products.



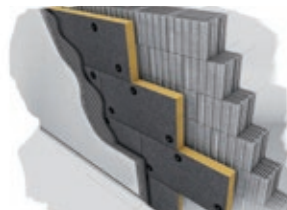
Cold and heat don't stand a chance thanks to thermal renovation



Austrotherm XPS® TOP 50 SF perimeter insulation



Austrotherm XPS® in larger thicknesses



Austrotherm Resolution® facade



Austrotherm Resolution® flat roof

The name Austrotherm® stands for the right material for thermal renovation: Austrotherm is a specialist in successful insulation solutions, and has developed the perfect products for comprehensive insulation of buildings. Austrotherm insulating materials offer maximum thermal

insulation, stability and ease of use. Their outstanding insulation means residents feel comfortable at all times: While the walls are kept warm in the winter, the thermal insulation acts like air conditioning in the summer.

Austrotherm XPS®

From the cellar to the roof



Energy-saving thermal insulation from the cellar to the roof: This pink insulating material perfectly fulfils all requirements. The extruded polystyrene, XPS for short, offers the ideal solution for a wide range of applications. The outstanding properties of Austrotherm XPS® come into play especially when high demands are placed on the insulation by extreme pressure and humidity, such as on perimeter and base insulation, on flat roof insulation, beneath foundation plates or in humid areas.

German quality from Wittenberge

Half-way between Berlin and Hamburg lies the 114,000 m² XPS production site of Wittenberge. A modern, company-owned research and testing lab ensures the excellent quality of the products. And of course Austrotherm insulating materials meet the requirements of all relevant product standards: Those of the EU, Germany and Austria as well as those of neighbouring countries to the east.

Recycling is a high priority at Austrotherm®

As Austrotherm XPS® insulating boards are laid loose in the inverted roof or underneath the foundation plate, they are 100% recyclable. This high reusability of Austrotherm XPS® boards is unrivalled.

The advantages:

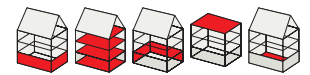
- ▶ Outstanding thermal insulation
- ▶ High mechanical strength
- ▶ Easy to process
- ▶ Good resistance to ageing

Environmentally friendly production as standard

The aim is to produce insulation in as sustainable and environmentally-friendly a manner as possible, and to optimise production in order to save energy in this area too. Austrotherm®'s main efforts are focussed on reducing emissions in energy and transport, but it is also focussed on activities in procurement, product design and environment management. The Austrotherm XPS® TOP uses air as its cell content, meaning that it has outstanding ecological properties.

The range of Austrotherm XPS® products:

- ▶ Austrotherm XPS® Premium 30 SF
- ▶ Austrotherm XPS® TOP 30 TB SF
- ▶ Austrotherm XPS® TOP P TB GK
- ▶ Austrotherm XPS® TOP 30
- ▶ Austrotherm XPS® TOP 30 GK
- ▶ Austrotherm XPS® TOP 50 SF
- ▶ Austrotherm Inverted Roof Fleece WA
- ▶ Austrotherm XPS® TOP 70 SF
- ▶ Austrotherm Foundation Plate Insulating System
- ▶ Austrotherm Universal Construction Board
- ▶ Austrotherm XPS® TOP P GK
- ▶ Austrotherm XPS® TOP KW



Austrotherm XPS® in larger thicknesses





Improved Lambda value through thermobonding method



Austrotherm® produces XPS insulating boards up to 400 mm thick using a new thermobonding method. This means the thicker insulating boards necessary to keep energy levels low can be easily achieved for use in cellar and flat roof insulation. The thick boards offer good insulation, with a Lambda value of 0.035 W/(mK).

Energy-saving construction methods demand high XPS insulating thicknesses

Insulating boards used in flat roof or cellar insulation are exposed to high stresses. The pink Austrotherm XPS® is the ideal insulating material for these applications, as it is waterproof and pressure-resistant. Low energy and passive homes demand optimised U values of components and therefore higher insulating thicknesses or better Lambda values of insulating materials. With Austrotherm XPS® TOP TB, it is now possible to achieve the U-values required by low energy and passive homes even with inverted roofs.

-  Mostly waterproof
-  Best ecological properties (cell contents: air)
-  Outstanding thermal insulation
-  Ideal for subsidised housing

Thermally bonded: New technology results in good Lambda values

Austrotherm® is using new technology for thermal bonding of XPS boards: The thermobonding (TB) method allows one thick insulating board to be created from two or more thinner boards, resulting in a single board with the same or better technical properties than standard-thickness XPS insulating boards. This results in the Lambda value relevant for the insulating efficiency reaching around 0.035 W/(mK).

No bonding agents or adhesives are used during production; instead, a special production process is used to bond several thin XPS boards into one thick Austrotherm XPS® TOP TB board. This makes recycling easier at the end of the service life of the house, as the end product does not require separating. In addition, the Austrotherm XPS® TOP TB is permeable.

Austrotherm XPS® TOP 30 TB SF



- ▶ Outside cellar wall
- ▶ Above and underneath the floor plate
- ▶ In inverted roofs, terrace roofs and parking decks
- ▶ In humid areas, plus roof or duo roof
- ▶ Core insulation

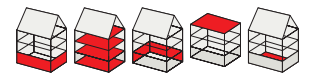
Austrotherm XPS® TOP P TB GK



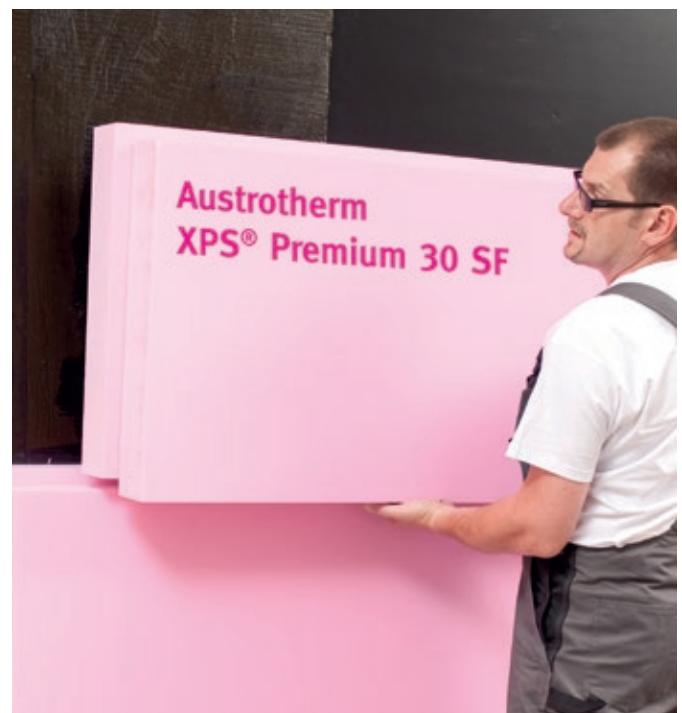
- ▶ Base insulation
- ▶ Thermal bridge insulation
- ▶ Inside wall





Austrotherm XPS® Premium 30 SF

The most insulating XPS



For more than 60 years now, Austrotherm® has been developing its expertise in insulating materials and demonstrating it with a continuous stream of new and improved products. These decades of experience make it possible to develop innovations that meet the highest of requirements. Through intensive research, it has been possible to further improve the insulating values: The result is the new “Austrotherm XPS® Premium 30 SF”. It insulates with an impressive Lambda value of 0.027 W/(mK) at a thickness of 40 – 60 mm, around 23 percent better than standard XPS. Its advantages come into play particularly where space is limited. The new, highly thermally insulating, pressure-resistant and waterproof XPS insulating boards offer perfect insulation and save space.

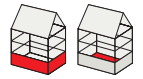


-  Maximum thermal insulation – **the best XPS**, λ from 0.027 W/(mK)
-  Insulates perfectly – especially where space is limited
-  Ideal for subsidised housing
-  Mostly waterproof

Austrotherm XPS® Premium 30 SF is the best XPS available at the present time In terms of its insulating value. Available in thicknesses of 40, 50, 60 and 100 mm.

Optimal perimeter insulation

The foundation of all insulation



If the cellar is well-insulated, the living area will remain warm. Good insulation prevents the cold from the cellar walls and floor being transferred upwards.

To protect the environment and to save heating costs, thermal insulation should begin in the cellar or in the foundation walls. To achieve even better insulation, however, thermal insulation in the so-called perimeter area is also advisable and necessary. This reduces the escape of heat from unheated or heated cellar areas, and also reduces the formation of thermal bridges in cellar ceilings or in the foundations area. The term “perimeter” means the parts of a house that come into contact with the ground.



Protecting the damp-proofing

Optimal protection of the damp-proofing with Austrotherm XPS® insulating boards makes an important contribution to the overall success of construction. The high compressive strength means there is no need for a protective layer for the insulating boards when back-filling the construction pit.



Optimal perimeter insulation with Austrotherm XPS® insulating boards

The outstanding properties of Austrotherm XPS® come into play especially when high demands are placed on the insulation by extreme pressure and humidity.

High thermal insulation

Through perimeter insulation, i.e. the thermal insulation of the outside cellar wall at the outside, the flow of heat from both heated and unheated cellars is reduced. If the cellar is converted – into a guest bedroom, sauna, hobby room – additional costs and subsequent excavation work can be avoided through the use of Austrotherm XPS®.

With complete insulation of the cellar on the exterior of the walls, **space is saved for the interior** and thermal bridges are prevented.

The main product advantages – good thermal insulation, high resistance to moisture and high resistance to pressure – are fully utilised here. In addition, Austrotherm XPS® provides excellent protection for damp-proofing. The minimum thickness for a perfect low-energy home is at least 180 mm, or at least 240 mm for a passive home.

Largely waterproof

In a permanently damp environment, the insulating material must be as waterproof as possible. Extruded polystyrene, such as Austrotherm XPS® insulating boards, has an almost-closed cell structure. At least 95% of the cells are closed and therefore impenetrable by water. Thus, the capillary water intake is 0.0 Vol%. Austrotherm XPS® can also easily be used in applications involving long-term water immersion or pressing water.



High resistance to pressure

With a permissible continuous compressive strength of 13 to 25 t/m² for Austrotherm XPS[®] thermal insulation boards, they can be used in perimeter insulation up to 15 m deep under ground.



Resistance to humic acids

During trials with installed XPS insulating boards, no damage due to humic acids or other naturally occurring substances in the soil was observed over a period of 15 years.



From the cellar to the roof

Ranges of application of Austrotherm XPS[®]

Main ranges of application																								
	Floors				Exterior wall					Inverted roof					Pitched roof		Other applications							
	Underneath the floor plate	Above the floor plate	Humid areas	Industrial floors	Exterior cellar walls	Interior walls	Base area	Ceiling grilles	Thermal bridges	Core insulation	Gravel roof	Terrace roof	Parking deck	Green roof	Plus roof (renovation)	Duo roof	Above rafters	Below rafters	Sports hall	Stable	Railway construction	Road construction	Artificial ice rink	Fruit cellar
Austrotherm XPS [®] Premium 30	•	•	•	•	•					•	•	•	•	•	•		•	•	•	•			•	•
Austrotherm XPS [®] TOP 30	•	•	•	•	•					•	•	•	•	•	•		•	•	•	•			•	•
Austrotherm XPS [®] TOP 30 TB SF	•	•	•	•	•					•	•	•	•	•	•		•	•	•	•			•	•
Austrotherm XPS [®] TOP 50	•	•	•	•	•						•	•	•	•	•				•	•			•	•
Austrotherm XPS [®] TOP 70	•	•	•	•	•						•	•	•						•	•			•	•
Austrotherm XPS [®] TOP P						•	•	•	•															
Austrotherm XPS [®] TOP P TB GK						•	•	•	•															
Austrotherm XPS [®] TOP KW					•																			
Austrotherm Universal Construction Board		•				•																		



Note: You can find the folder containing information on chemical resistance at austrotherm.com

Use of Austrotherm XPS®

Easy to process

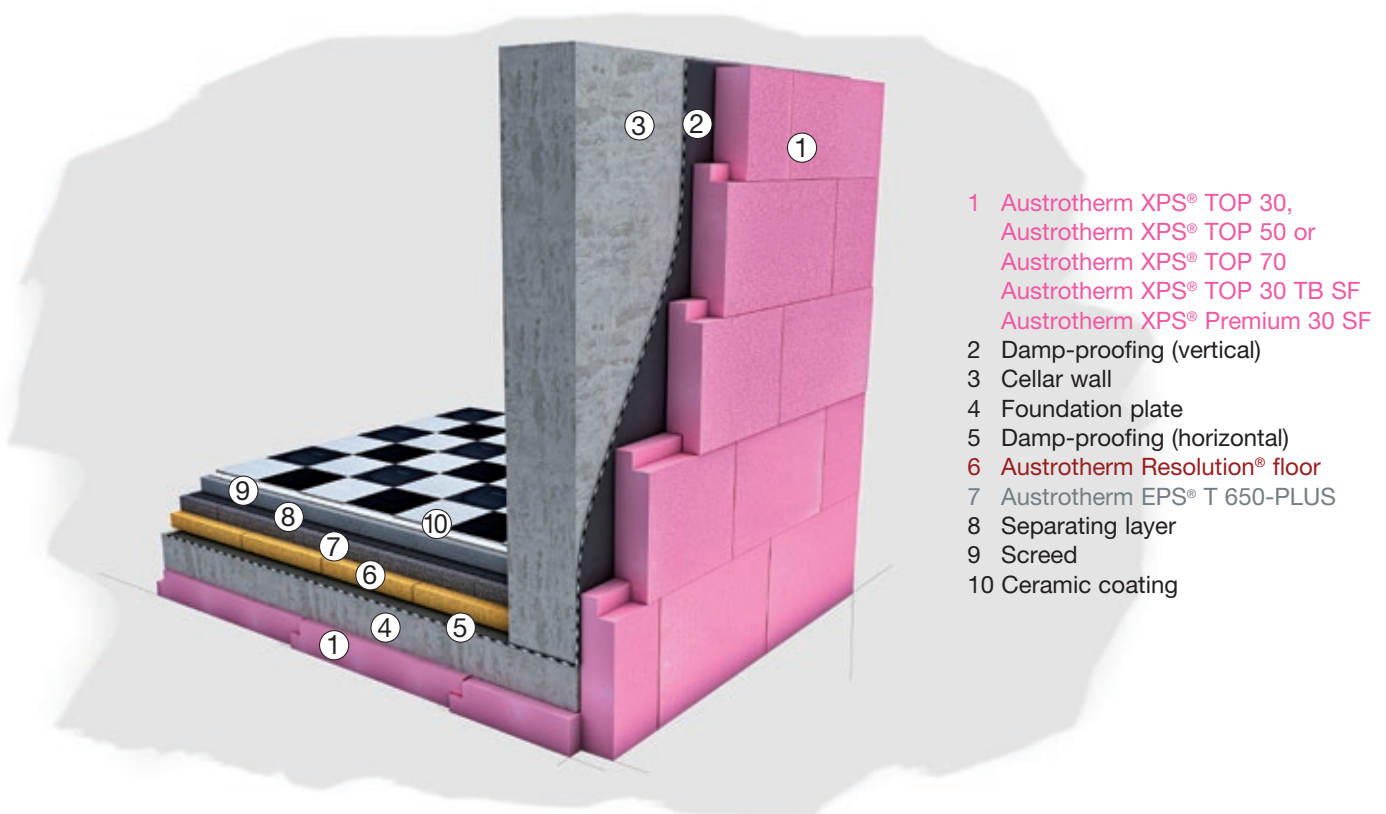


Through point-by-point application of a solvent-free adhesive (bitumen or plastic), the boards are glued directly onto the damp-proofing. Usually, Austrotherm XPS® insulating boards are laid in a staggered arrangement with stepped profiles.

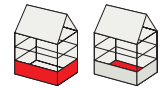
Cross joints are to be avoided where possible. The boards must be laid close together. The construction pit is then filled with approx. 30 cm high layers of backfilling material. Mechanical compression is carried out with light equipment.

Application examples

Perimeter insulation in a building with a cellar with plate foundation



Required insulating thicknesses for components in contact with the ground:



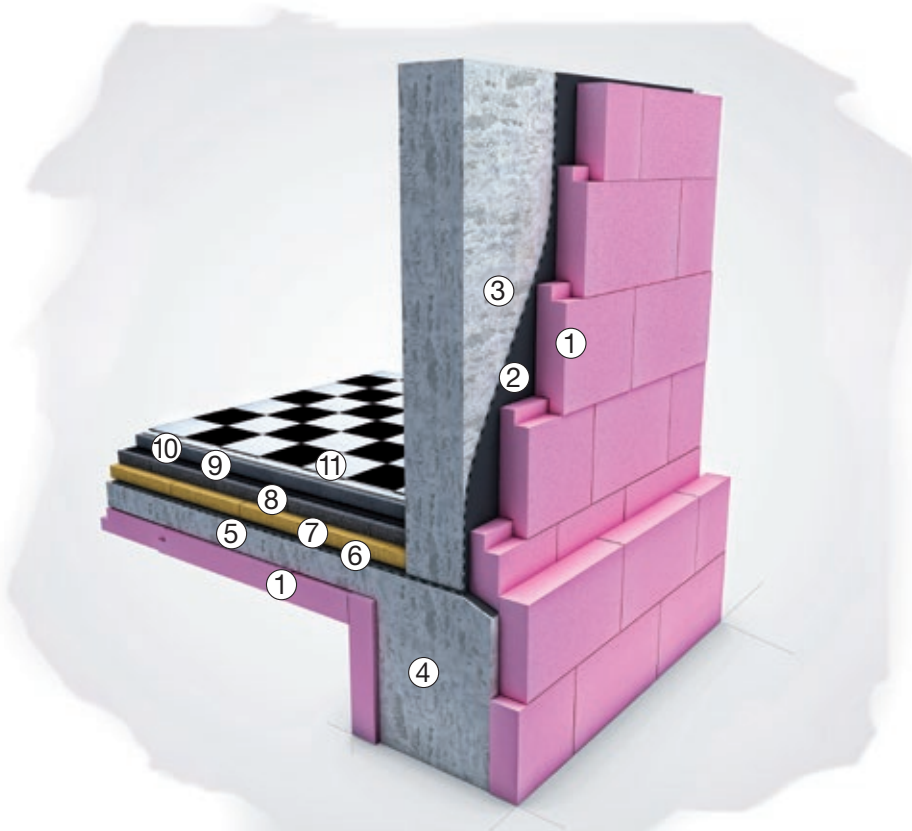
	Passive home	Low-energy home
U-value [W/m²k]	0.10	0.15
Austrotherm XPS® TOP 30, 50, 70, 30 TB	350 mm	240 mm
Austrotherm XPS® Premium 30 SF	300 mm	200 mm

Perimeter insulation for the highest demands:

	Austrotherm	XPS® TOP 30, 30 TB XPS® Premium	XPS® TOP 50	XPS® TOP 70
Austrotherm XPS® TOP – compressive strength groups Compressive stress at 10% deformation	[t/m²]	30	50	70
Permissible long-term compressive stress (creep behaviour)	[t/m²]	13	18	25
Maximum installation depth (guide value)	[m]	5	11	15

Application examples

Perimeter insulation in a building with a cellar with strip foundation



- 1 Austrotherm XPS® TOP 30, Austrotherm XPS® TOP 50 or Austrotherm XPS® TOP 70 Austrotherm XPS® TOP 30 TB SF Austrotherm XPS® Premium 30 SF
- 2 Damp-proofing (vertical)
- 3 Cellar wall
- 4 Strip foundation
- 5 Floor plate
- 6 Damp-proofing (horizontal)
- 7 Austrotherm Resolution® floor
- 8 Austrotherm EPS® T 650-PLUS
- 9 Separating layer
- 10 Screed
- 11 Ceramic coating

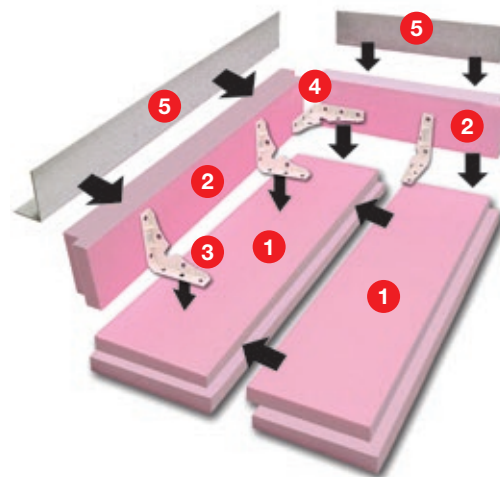
Austrotherm Foundation Plate Insulating System




The foundation for comfort



To protect a building against the cold, the best idea is to apply thermal insulation precisely where contact with the cold substrate and moisture-laden ground is at its greatest: In the foundations and cellar. To prevent the risk of thermal bridges in this area, optimal thermal insulation is recommended.

For low-energy homes, an insulating thickness of at least 180 mm is recommended. Due to the many possible thermal bridges in this area, optimal thermal insulation is provided by Austrotherm XPS®. In order to avoid risking subsidence and the subsequent formation of cracks in the building, it is recommended that you use Austrotherm XPS® TOP 50 or Austrotherm XPS® TOP 70, which significantly reduce the risk of damage. Likewise, where there are high spot loads, such as with pillars, ceiling cut-outs for stairs, girder formations, etc., Austrotherm XPS® TOP 50 or Austrotherm XPS® TOP 70 insulating boards should be used.



-  Extremely rapid formwork system with thermal insulation
-  Formwork system for forming seals compliant with standards
-  Insulation for foundation plates subject to high pressures

- 1 Austrotherm XPS® TOP 50 or TOP 70 insulating boards with stepped profile are joined together to form a complete floor plate.
- 2 The formwork is created by cutting the Austrotherm XPS® TOP 50 or TOP 70 insulating boards to the desired height. (formwork boards should be at least 100 mm thick)
- 3 Secure 2 – 4 system brackets per formwork board with Austrotherm speed bolts and, if necessary, bond with PU foam.
- 4 Also join corner areas with Austrotherm system brackets.
- 5 For a seal in accordance with ÖNORM/DIN, the Austrotherm add-on bracket is screwed onto the Austrotherm formwork board.

Tip: You can find our online quantity calculator tool at austrotherm.com

Austrotherm XPS® TOP P TB GK insulating boards

Austrotherm XPS® TOP P insulating boards



Best insulation in the base area



The facade area just above the ground is exposed to particular stresses. A specific type of insulation can play out its full advantages here.

- ▶ High moisture load due to contact with rain, snow and splash water.
- ▶ Increased demand for thermal insulation due to thermal bridges via interior connecting cellar ceilings and cellar walls.
- ▶ Increased pressure load, e.g. due to possible mechanical stresses from bicycles, small vehicles, ball games, etc.

To ensure good visual design, it is recommended that you use Austrotherm XPS® TOP P insulating boards with embossed surface. The high pressure-resistance, the high moisture-resistance and the excellent thermal insulation particularly come into effect here.

Good plastering surface

Austrotherm XPS® TOP P insulating boards offer excellent adhesive strength for the application of plaster. Austrotherm XPS® TOP is moisture-resistant and therefore well suited to use in the base area, as this area is subject to high moisture loads due to splash water. Base insulation with Austrotherm XPS® TOP P should be positioned up to approx. 30 cm above the finished level. The bonding with the substrate must be executed carefully and can be carried out with adhesive mortar or bitumen cold adhesive, for example. When using a permanently elastic bitumen adhesive, the insulating boards must either be supported (e.g. on perimeter insulation) or must have additional mechanical mountings.



Excellent bonding properties and plaster adhesion



Best ecological properties (cell contents: air)



Outstanding thermal insulation



Ideal for subsidised housing

Wall insulation with Austrotherm XPS®

Long-lasting durability on the facade



The correct insulating board is an important component of a beautiful and durable facade. There are several good ways of creating a perfectly insulated wall. Austrotherm XPS® TOP P insulating boards are always an option: They ensure outstanding insulation, are ready for use even with a temporary moisture load and contribute towards long durability of the outer shell. With the right wall construction, almost any insulating value can be achieved.

Facade insulation

Austrotherm XPS® TOP P insulating boards with embossed surface ensure outstanding thermal insulation and a good plaster substrate in connection with a thermal insulation composite system (full thermal insulation). Sufficient anchoring must be ensured.

For **ventilated facade insulation**, any desired facing formwork can be used. Whether wooden formwork, precast concrete, glass or metal elements – the creativity of design knows no limits. Austrotherm XPS® insulating boards with smooth surfaces cause no reduction in the insulating performance of the wall, even with occasional moisture loads. The advantage of this design lies in the clear physical separation of the individual layers. This makes the design completely unproblematic, even in terms of diffusion.

Swimming pool insulation

Whether in the open air or indoors, insulation with Austrotherm XPS® guarantees low energy consumption and a pleasantly warm pool temperature.

The insulating boards can either be laid outside the swimming pool – on the floor plate or side wall – or within the load-bearing construction. **Note:** Before use within the load-bearing construction, please contact our applications engineers. Compatibility with the various swimming pool foils must be ensured.

Core insulation

With this wall construction, the Austrotherm XPS® insulating boards lie between the inner wall and a usually bricked outer shell. The inner wall adopts the load-bearing function, while the outer wall is not load-bearing. The advantage of this design is the longer life of the outer shell, provided it is made of clinker masonry or another especially weatherproof material. In addition, since the thermal insulation can be created in any desired thickness, almost any insulating value can be achieved, even for a passive home.



Austrotherm XPS® insulating boards even offer significant advantages for the installing retrospective interior insulation. They are largely damp-proof and offer high insulating performance, even at relatively low insulating thicknesses. The advantage of their resistance to moisture comes to bear particularly in components that are critical for vapour diffusion in the interior insulation of old buildings.

Roof insulation with Austrotherm XPS®

The reliable and economical inverted roof



The inverted roof is a flat roof construction whose main characteristic – unlike conventional flat roof constructions – is that the thermal insulation is laid above the damp-proofing. This design has only become possible through the development of insulating materials that absorb next to no water. This roof construction has three main, impressive features: Reliability, simplicity and profitability.

Reliability

To ensure durability of a flat roof construction, optimal interaction of the individual functions is crucial. Protection of the load-bearing construction against the effects of weather and moisture must be guaranteed by durable and resistant damp-proofing. This is possible above all if there are Austrotherm XPS® insulating boards in place to protect the damp-proofing itself against extreme heat or frost attacks.

Austrotherm XPS® thermal insulation boards ensure that, in contrast to conventional warm roofs, there are almost no temperature stresses on the damp-proofing. Flat roofs with the inverted roof principle have proven their worth over many years and meet the “recognized rules of technology”.

Simplicity

Clear separation of load-bearing construction – damp-proofing – thermal insulation – each in a separate layer. No vapour barrier or pressure equalization layer are required underneath the damp-proofing. The outstanding thermal insulation value enables the use of thinner insulating materials with Austrotherm XPS® than with other insulating materials. And it goes without saying that good thermal insulation reduces heating costs and protects the environment.

Profitability

These good experiences with inverted roofs in terms of durability and easy construction are important prerequisites for the profitability of this design with Austrotherm XPS® insulating boards. The outstanding thermal conductivity means that thinner insulating materials can be used with Austrotherm XPS® than when using other insulating materials. This is important above all because the greatest heat losses across the entire building shell occur through the roof surface.



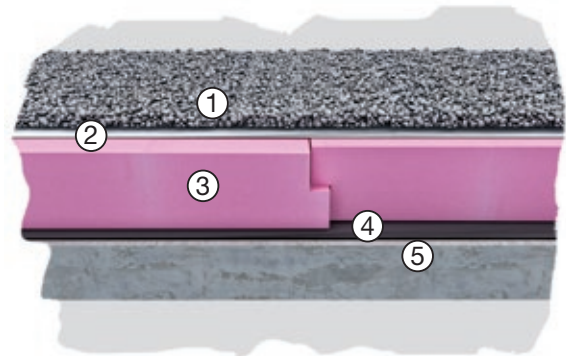
The gravelled inverted roof

Frost-proof and waterproof



The simplest version of the flat roof according to the inverted roof principle is that of the gravelled inverted roof. The roof is only designed to be walked on for inspection or repair purposes. A filter fleece and gravel are laid on top of the weatherproof Austrotherm XPS® insulating boards (frost-proof, largely waterproof). The gravel layer, which is at least 5 cm thick and is laid directly on top of a filter layer over the Austrotherm XPS® insulating boards, must fulfil the following functions:

- ▶ Protection against wind suction
- ▶ Protection against UV rays and radiating heat
- ▶ Protection of individual boards against floating
- ▶ Protection against flying sparks

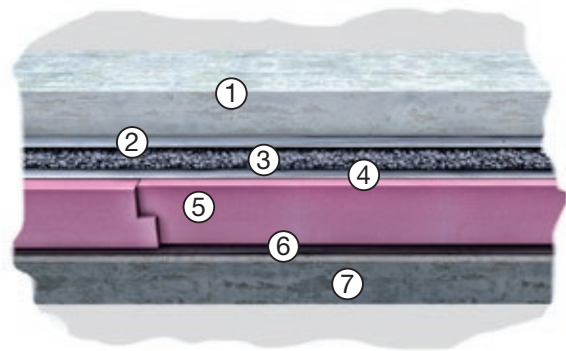


- 1 Gravel layer (16/32)
- 2 Austrotherm inverted roof fleece WA
- 3 Austrotherm XPS® TOP 30 SF
Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® Premium 30 SF
- 4 Roof seal
- 5 Raw ceiling on the gradient

The parking deck

Maximum strength under pressure and shear force

This high-strength version of the inverted roof is used, for example, wherever a driveway or parking space is needed. It is recommended that you use the especially pressure-resistant Austrotherm XPS® TOP 50 or Austrotherm XPS® TOP 70 boards for this. The permissible continuous compressive strength of the insulating boards is up to 25 t/m². The driving surface can be made of paving stones, reinforced concrete slabs or prefabricated concrete slabs. To dissipate the shear forces from vehicle use, a sufficiently thick bedding layer between the driving surface and the insulating layer is recommended.



- 1 Driving surface, e.g. reinforced concrete
- 2 Separating fleece
- 3 Drainage gravel
- 4 Austrotherm inverted roof fleece WA
- 5 Austrotherm XPS® TOP 50 SF
Austrotherm XPS® TOP 70 SF
- 6 Roof seal
- 7 Bare ceiling inside the slope



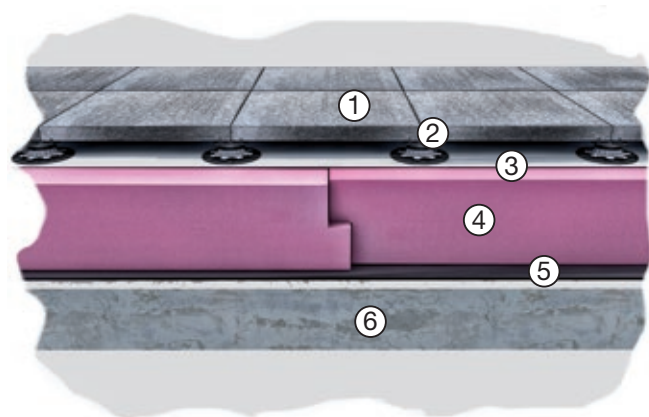
The terrace roof

Above roofs, cellars and oriels

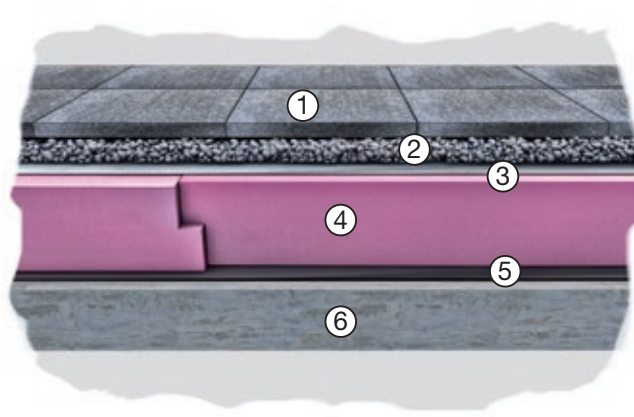


This popular type of inverted roof is used not only above roofs, but also above cellars, oriels, etc. The slabs accessible to foot traffic can either be supported or laid in

a gravel bedding layer, supported on slab mountings or laid directly on Austrotherm XPS® TOP 30 strips. Depending on the design, any desired terrace slabs can be used.



- 1 Terrace slabs
- 2 Elevated bearings
- 3 Austrotherm inverted roof fleece WA
- 4 Austrotherm XPS® TOP 30 SF
Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® TOP 50 or
Austrotherm XPS® TOP 70
Austrotherm XPS® Premium 30 SF
- 5 Roof seal
- 6 Bare ceiling (inside the slope)



- 1 Terrace slabs
- 2 Bedding layer
(gravel 2/8, ≥ 4 cm)
- 3 Austrotherm inverted roof fleece WA
- 4 Austrotherm XPS® TOP 30 SF
Austrotherm XPS® TOP 30 TB SF
Austrotherm XPS® TOP 50 or
Austrotherm XPS® TOP 70
Austrotherm XPS® Premium 30 SF
- 5 Roof seal
- 6 Bare ceiling (inside the slope)



The green roof

Trend towards “Increased quality of life”

Green roofs are on trend! They satisfy the longing for a living space close to nature and a slightly “better” quality of life. New habitats for plants can be created through the use of green roofs not only in urban areas with dense construction, but also in communal and industrial construction. Modern flat roof constructions such as the inverted roof with Austrotherm XPS® insulating materials are a safe basis for this.

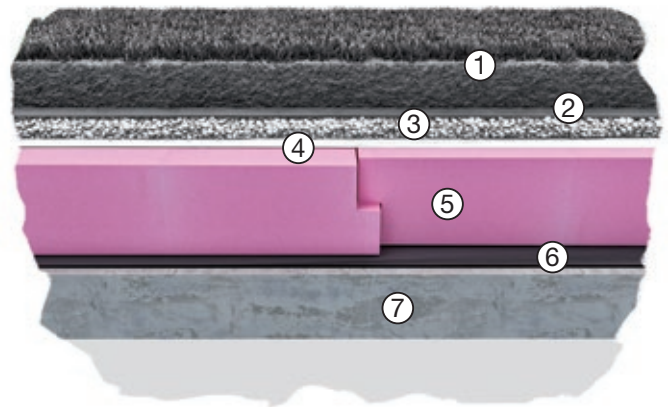
Inverted roof with extensive vegetation:

Extensive vegetation means largely self-sufficient types of vegetation that continue to develop and change their appearance. They do not need to be watered or pruned.



Inverted roof with intensive vegetation:

Intensive vegetation includes lawn areas, perennials and shrubs. The plants used need to be watered and cared for. A drainage layer, made of filter gravel for example, is required.



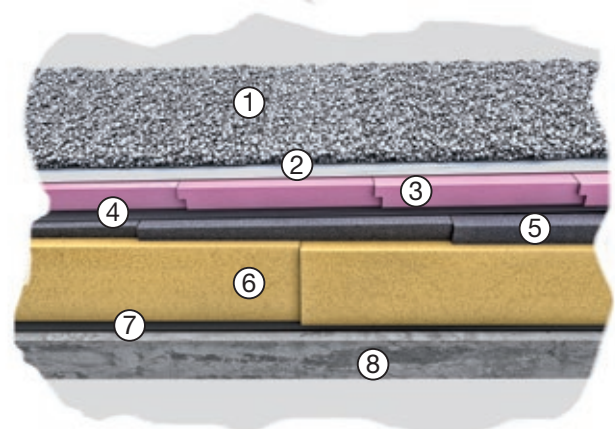
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| 1 Vegetation layer | 5 Austrotherm XPS® TOP 30 SF, Austrotherm XPS® TOP 50, Austrotherm XPS® TOP 30 TB SF or Austrotherm XPS® TOP 70, Austrotherm XPS® Premium 30 SF |
| 2 Separating fleece | 6 Roof seal (root-proof) |
| 3 Drainage layer (gravel 2/8 to 16/32) | 7 Bare ceiling inside the slope |
| 4 Austrotherm inverted roof fleece WA | |

The plus roof

For special requirements

The plus roof is a special form, providing a combination of non-ventilated single-shell roof (warm roof) and inverted roof. For older roofs in particular, which are still waterproof but whose thermal protection is inadequate in today’s terms, the Duo roof is used. If the original roof construction has become damaged, the Duo roof offers a simple and effective renovation option.

The need for a vapour barrier depends on the relationship between the insulating material thickness and the materials used.¹⁾ It is recommended that you check this through calculations.



- | | |
|---|---|
| 1 Gravel layer (16/32) | 4 Roof seal |
| 2 Austrotherm inverted roof fleece WA | 5 Austrotherm EPS® W30-PLUS sloping roof insulation |
| 3 Austrotherm XPS® TOP 30 SF, Austrotherm XPS® TOP 30 TB SF or Austrotherm XPS® Premium 30 SF or Austrotherm XPS® TOP 50 SF | 6 Austrotherm Resolution® flat roof |
| | 7 Vapour barrier and pressure equalization layer |
| | 8 Raw ceiling |



¹⁾ Use the following as a rule of thumb regarding the need for a vapour barrier: If the thermal insulating effect underneath the roofing membrane is $\leq 1/3$ of the total insulating performance, or the thermal insulating effect above the roofing membrane is $\geq 2/3$ of the total insulating performance.

Austrotherm UNIPLATTE®

The base panel for ceramic coverings




The Austrotherm UNIPLATTE® panel is a perfect support element, made from pink extruded polystyrene rigid foam, coated with a synthetic resin modified mortar and reinforced with a glass fibre net on both sides. It is waterproof, heat-insulating, robust and particularly suitable for use as a substrate for laying tiles using the glue-fixing method.

The complete range

With the right accessories, the versatile application spectrum for Austrotherm UNIPLATTE® is limitless. Connection brackets, sealing tape and fastening sets, which are tailored to the respective purpose, form a complete system together with Austrotherm UNIPLATTE® boards. Prefabricated elements are available for pipe claddings, dividing walls or, for example, washstands, shower trays and bathtub cladding.

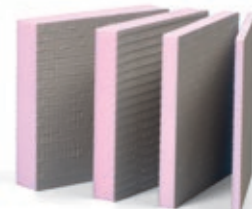
 Room-height prefabricated element

 Ready-made tiling substrate


 Mostly waterproof

The advantages of using Austrotherm UNIPLATTE®

- ▶ Water-resistant to the highest possible degree
- ▶ Design diversity
- ▶ Outstanding bonding properties
- ▶ Easy to cut
- ▶ High heat insulation
- ▶ Dimensionally accurate/flush surface
- ▶ Frost-resistant
- ▶ High resistance to pressure



 Versatility

 Outstanding bonding properties

Austrotherm UNIPLATTE®

To create dividing walls



When creating dividing walls, forming bathtub claddings and so on, it is best to use Murexin connecting brackets to help assembly. These are screwed or nailed into the wall or floor. The Austrotherm UNIPLATTE® panels are then inserted into the brackets, meaning that the panel is immediately held in place. In wet rooms, recesses in the walls and floor must be sealed using sealing tape and sealing sleeves.

Forming joints and coverings

All connections, inside corners, wall connections and floor-cover connections can be flexibly formed using silicon. In addition, all longitudinal and head joints should be glued using silicon. Usually, all head joints and longitudinal joints must be pasted over

with glass fabric, width: 10 cm. The strips are inserted into the tile adhesive and then filled into the joint. In wet areas, i.e. wherever there is running or standing water, the sealing tape must be inserted in the wall and floor niches instead of the fabric strips.

Subsequent work

After the adhesive mortar has hardened (after approx. 12 hours or, when using Murexin Quick Flex Adhesive Mortar, after approx. 3 hours), the ceramic surface can then be applied in the form of tiles, panels or a mosaic. When laying ceramic surfaces, the processing guidelines from Murexin tile adhesive mortar apply.

Thickness in mm	Austrotherm Uniplatte® applications
4*, 6*, 10*	As a corrective panel , e.g. for half-height tiled bathrooms. Old tiles are often 4 – 6 mm thick. Walls can be retiled to ceiling height without having to remove the old tiles. If the wall was previously tiled using the thick-film procedure, the 10 mm panel is suitable.
12.5	Used, for example, as a corrective panel that finishes flush with gypsum plasterboard in wet areas.
20, 30, 40, 50	For solving all kinds of design problems , e.g. claddings, furniture in the bathing area such as washstands and shelves, fitting attachments, etc.
60, 70, 80	For solving all kinds of design problems if greater stability is required, for example for furniture in the bathing area, for steps, for free-standing dividing walls for balconies, etc.
100, 120	For solving all sorts of design problems if greater stability is required, for example, for free-standing dividing walls for balconies, etc.

* Dimensions: 1300 x 600 mm, format for 10 mm and above: 2600 x 600 mm

Austrotherm UNIPLATTE® L-/U-shaped boards

Save costs and time



The Austrotherm UNIPLATTE® L-/U-shaped boards are ceiling-height prefabricated elements. They make it considerably easier to create horizontal and vertical pipe claddings – a process that is usually both expensive and time-consuming. Time-consuming brick laying & plastering or substructures are a thing of the past. The L-/U-shaped board can only be cut using a saw and it is fitted as part of the tiling work.

- ▶ Ceiling-height prefabricated element
- ▶ Simple mechanical fitting using a corner bracket
- ▶ Ready-made tiling substrate

Austrotherm UNIPLATTE® bathtub element

Custom-fit cladding elements



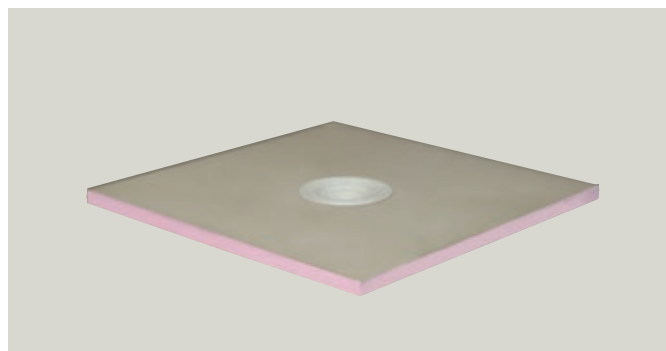
Practical, hard-plastic prefabricated levelling foot. Can be easily set to precisely the required height (up to approx. 10 cm) using a 17 mm open-end wrench.

The Austrotherm UNIPLATTE® bathtub element is a solution at the right size for bath-end and bath-side cladding of standard bathtubs. The inclusion of height-adjustable feet means that unevenness can easily be equalised.

- ▶ Simple mechanical fitting using a corner bracket
- ▶ Ready-made tiling substrate
- ▶ Custom-fit cladding elements for standard bathtubs

Austrotherm UNIPLATTE® shower element

System solution for level-access showers



Prefabricated barrier-free shower floor element with corresponding gradient and integrated drain, which can be used both horizontally and vertically.

Very diverse design, easy to process and maximum security. Austrotherm XPS® insulating boards with waterproof coating, reinforced on both sides with a glass fibre net, integrated horizontal or vertical drain. Permissible pressure resistance: 130 kN/m².

Thermal conductivity: $\lambda_D = 0.035 \text{ W/(mK)}$

- ▶ In wet areas of: Sports and games facilities, swimming pools, nursing homes and hospitals, accessible installation is possible

Austrotherm UNIPLATTE® fastening elements and accessories

For best processing in wet areas®

As a special service, Austrotherm® has always offered a range of fastening elements and accessories which can be used to ensure that Austrotherm UNIPLATTE® boards are secured or processed well. The following accessories are available:



Austrotherm stainless steel cap (Fig. 1)

- ▶ For mounting Austrotherm UNIPLATTE® boards on walls

Austrotherm galvanized cap (Fig. 2)

- ▶ For mounting Austrotherm UNIPLATTE® boards on walls.

Austrotherm fastening plug (Fig. 3)

- ▶ For attaching Austrotherm UNIPLATTE® boards to each other at right angles
- ▶ Good attachment in the XPS core of the Austrotherm UNIPLATTE®

Austrotherm levelling foot for bathtub cladding (metal) (Fig. 4)

- ▶ Height adjustment of Austrotherm UNIPLATTE® boards used as bathtub cladding.

Austrotherm fastening brackets (Fig. 5)

- ▶ Double-U: For joining Austrotherm UNIPLATTE® boards one above the other
- ▶ Single-U: For connecting Austrotherm UNIPLATTE® boards to the floor or wall

Austrotherm fastening anchor (Fig. 6)

- ▶ For anchoring Austrotherm UNIPLATTE® boards onto walls and floors

Austrotherm metal insulating material holder (Fig. 7)

- ▶ For secure anchoring on the wall

Austrotherm insulating board plug with plastic nail (Fig. 8)

- ▶ For mounting rigid foam boards and Austrotherm UNIPLATTE® boards in the wall area on concrete, bricks and other high-strength construction materials.
- ▶ The Austrotherm insulating board plug with plastic nail is inserted into the drilled hole. The expanding nail is then hammered into the plug. The plug expands and stays in the drilled hole due to the expansion pressure.

Austrotherm insulating material plate for wood and metal substrates (Fig. 9)

- ▶ After inserting the screw, the plug head is sealed with the integrated cap.

Austrotherm sealing tape (Fig. 10)

- ▶ Sealing of inner and outer corners in wet areas
- ▶ Sealing of board edges in wet areas

Austrotherm sealing sleeves (Fig. 11)

- ▶ Secure sealing of pipe ducts in wet areas

Austrotherm glass fabric (Fig. 12)

- ▶ For smoothing over butt joints

Austrotherm XPS® Technical data

Properties	Standard	Unit	Austrotherm XPS® Premium 30 SF	Austrotherm XPS® TOP 30 TB	Austrotherm XPS® TOP 30	Austrotherm XPS® TOP 50	Austrotherm XPS® TOP 70	Austrotherm XPS® TOP P	Austrotherm XPS® TOP P TB
Product type	DIN EN 13164	—	XPS	XPS	XPS	XPS	XPS	XPS	XPS
Compressive strength	DIN 4108-10	—	dh	dh	ds	dx	dh	dh	dh
Thermal conductivity	DIN EN 13164	W/(mK)	4–6 cm: 0.027 10 cm: 0.029	22–40 cm: 0.035	3–6 cm: 0.033 8–12 cm: 0.036 14–20 cm: 0.038	5–6 cm: 0.033 8–12 cm: 0.036 14–20 cm: 0.038	5–6 cm: 0.033 8–10 cm: 0.035 12–16 cm: 0.036 18–20 cm: 0.038	3–6 cm: 0.033 8–12 cm: 0.036 14–20 cm: 0.038	22–40 cm: 0.035
Third party monitoring	—	—	FIW Munich	FIW Munich	FIW Munich	FIW Munich	FIW Munich	FIW Munich	FIW Munich
Surface	—	—	smooth	smooth	smooth	smooth	smooth	embossed	embossed
Edge shape	—	—	SF	SF	GK, SF	SF	SF	GK	GK
Dimensions: Length:	DIN EN 822	mm	1250	1250	1250	1250	1250	1250	1250
Width:	DIN EN 822	mm	600	600	600	600	600	600	600
Thickness tolerance:	DIN EN 13164	—	T1	T1	T1	T1	T1	T1	T1
Raw thickness approx.	DIN EN 1602	kg/m³	37	30	34	34	39	30	30
Pressure resistance	DIN EN 826 DIN B 6000	— kPa	CS(10Y)300 ≥ 300	CS(10Y)300 ≥ 300	CS(10Y)500 ≥ 500	CS(10Y)700 ≥ 700	CS(10Y)300 ≥ 300 ¹⁾	CS(10Y)300 ≥ 300 ¹⁾	CS(10Y)300 ≥ 300 ¹⁾
Creeping behaviour (after 50 years < 2%)	DIN EN 1606	— kPa	CC(2/1,5/50)130 130	CC(2/1,5/50)130 130	CC(2/1,5/50)180 180	CC(2/1,5/50)250 250	—	—	—
Permissible long-term compressive stress									
Elasticity module	DIN EN 826	kPa	12,000	12,000	20,000	25,000	12,000	12,000	12,000
Closed cell structure	DIN EN ISO 4590	%	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95
Water absorption: capillary through diffusion	— DIN EN 12088	Vol.-% —	0 WD(V)3 ²⁾	0 WD(V)3 ²⁾	0 WD(V)3 ²⁾	0 WD(V)3 ²⁾	0 WD(V)3 ²⁾	0 WD(V)5 ³⁾	0 WD(V)5 ³⁾
Application limit temperature	—	°C	70	70	70	70	70	70	70
Coefficient of linear thermal expansion	—	mm/ mK	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Frost-thaw resistance	DIN EN 12099	—	FTCD: 1	FTCD: 1	FTCD: 1	FTCD: 1	FTCD: 1	FTCD: 2	FTCD: 2
Fire behaviour:	DIN EN 13501-1	—	E	E	E	E	E	E	E

GK... straight edge, SF... stepped profile

¹⁾ applies from 5 cm thickness

²⁾ Thickness 50 mm ≤ 3% Vol; Thickness 100 mm ≤ 1.5% Vol; Thickness 200 mm ≤ 0.5% Vol; intermediate values are interpolated

³⁾ Thickness 50 mm ≤ 5% Vol; Thickness 100 mm ≤ 3% Vol; Thickness 200 mm ≤ 1.5% Vol; intermediate values are interpolated

⁴⁾ After 300 frost-thaw repetitions, max. 2 Vol.% water absorption

⁵⁾ After 300 frost-thaw repetitions, max. 1 Vol.% water absorption



15

Every construction measure – including thermal insulation with Austrotherm XPS® – is subject to pertinent construction regulations, which must be observed.

Please note:

- ▶ AUSTROTHERM XPS® is not resistant to constant UV radiation; it must be protected by suitable means.
- ▶ AUSTROTHERM XPS® is not resistant to radiating heat; for permanent use, the threshold temperature of 70 °C should not be exceeded under any circumstances. Dark coloured foils and filter fleeces can encourage an accumulation of heat and invariably result in deformation of the boards.
- ▶ If AUSTROTHERM XPS® comes into contact with materials that contain volatile substances (e.g. solvents, softeners, etc.), damage can occur. Care must be taken that adhesives used are suitable for bonding polystyrene foam.
- ▶ AUSTROTHERM XPS® must be installed and used in accordance with the recognised rules and the state of the art. Constant attention must be paid to the particular conditions of the application during use, particularly in terms of physical structure. The local building regulations must be observed.
- ▶ AUSTROTHERM XPS® products do not contain any hydrochlorofluorocarbons (HFCs). The information in this brochure is intended as non-binding advice on the basis of current technology. Where applicable, property rights must be observed. No legal obligation can be inferred from the contents of this brochure. All rights reserved.

Austrotherm UNIPLATTE® Technical data

Austrotherm UNIPLATTE®		Dimensions (in mm)	Thickness (in mm)	Packing units
Uniplatte 4	2.3 kg/m ²	1300 x 600	4	80 pcs/pal.
Uniplatte 6	2.4 kg/m ²	1300 x 600	6	160 pcs/pal.
Uniplatte 10	2.5 kg/m ²	1300 x 600	10	108 pcs/pal.
Uniplatte 10	2.5 kg/m ²	2600 x 600	10	108 pcs/pal.
Uniplatte 12.5	2.6 kg/m ²	2600 x 600	12.5	90 pcs/pal.
Uniplatte 20	2.8 kg/m ²	2600 x 600	20	60 pcs/pal.
Uniplatte 30	3.2 kg/m ²	2600 x 600	30	40 pcs/pal.
Uniplatte 40	3.5 kg/m ²	2600 x 600	40	30 pcs/pal.
Uniplatte 50	3.8 kg/m ²	2600 x 600	50	24 pcs/pal.
Uniplatte 60	4.1 kg/m ²	2600 x 600	60	20 pcs/pal.
Uniplatte 70	4.4 kg/m ²	2600 x 600	70	18 pcs/pal.
Uniplatte 80	4.8 kg/m ²	2600 x 600	80	16 pcs/pal.
Uniplatte 100	5.4 kg/m ²	2600 x 600	100	12 pcs/pal.
Uniplatte 120	6.1 kg/m ²	2600 x 600	120	10 pcs/pal.
Austrotherm UNIPLATTE® L-shaped board		Dimensions (in mm)	Thickness (in mm)	Packing units
L-shaped pipe boxing 15/15		2600 x 150/150	20	60 pcs/pal.
L-shaped pipe boxing 20/20		2600 x 200/200	20	40 pcs/pal.
L-shaped pipe boxing 30/30		2600 x 300/300	20	40 pcs/pal.
L-shaped pipe boxing 40/20		2600 x 400/200	20	40 pcs/pal.
Austrotherm UNIPLATTE® U-shaped board		Dimensions (in mm)	Thickness (in mm)	Packing units
L-shaped pipe boxing 20/20/20		2600 x 200/200/200	20	50 pcs/pal.
L-shaped pipe boxing 20/40/20		2600 x 200/400/200	20	20 pcs/pal.
L-shaped pipe boxing 30/60/30		2600 x 300/600/300	20	12 pcs/pal.
Austrotherm UNIPLATTE® bathtub element		Dimensions (in mm)	Thickness (in mm)	Packing units
Head piece 730 (incl. 1 levelling foot)		730 x 600	30	30 pcs/pal.
Length piece 1770 (incl. 2 levelling feet)		1770 x 600	30	30 pcs/pal.
Length piece 2100 (incl. 2 levelling feet)		2100 x 600	30	30 pcs/pal.

Technical properties of polystyrene extruded foam (mean values):

Pressure resistance:	200 kPa
Thermal conductivity: λ_d	20 – 60: 0.033 W/mK 70 – 120: 0.036 W/mk
Diffusion resistance factor: μ	100 – 200
Water absorption, capillary:	None
Application limit temperature:	70 °C
Fire behaviour:	in accordance with EN 13164: E

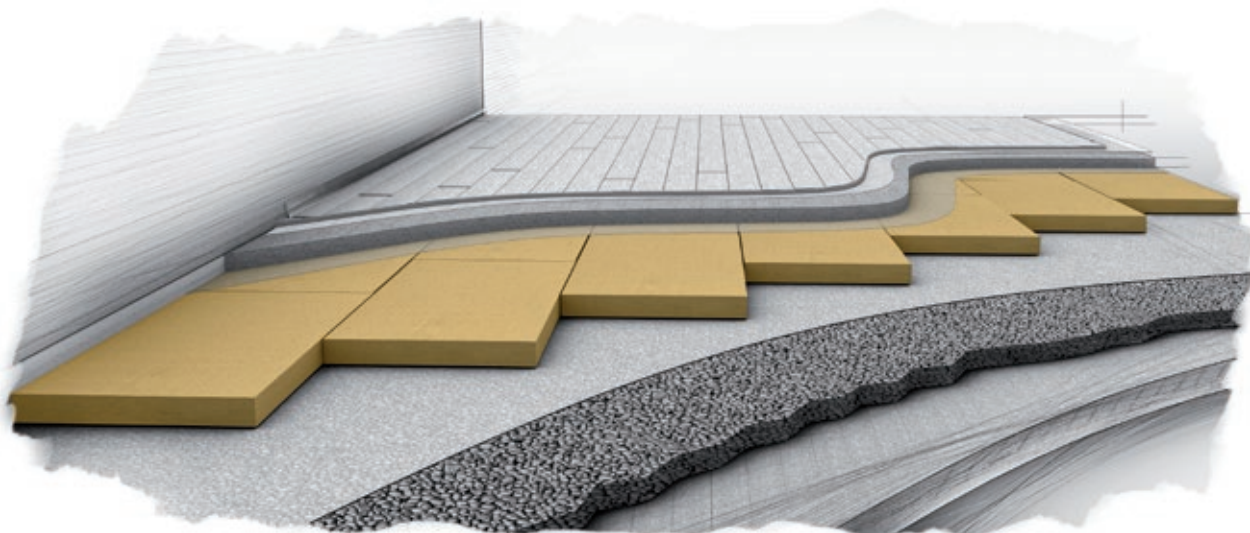
Storage: All Austrotherm UNIPLATTE® panels must be stored lying flat and in a dry place. Austrotherm UNIPLATTE® panels must not come into contact with substances that contain solvents.

Notes: The information in this brochure is intended as non-binding advice on the basis of current technology. Where applicable, property rights must be observed. No legal obligation can be inferred from the contents of this brochure.

The base material is Austrotherm XPS® TOP with good ecological properties, as the cell content is air.

Austrotherm Resolution®

The future of thermal insulation is slim



The future is slim and perfectly insulating.

With an outstanding Lambda value of 0.022 W/(mK), Austrotherm Resolution® makes short work of tight space conditions. It is an innovative insulating material made of Resol rigid foam. The extremely good insulating value, together with the resulting thinner material, means it can be used on surfaces that previously could not be insulated well due to space restrictions. But even where there are difficult structural conditions, such as bordering properties, there is now no longer any need to make compromises in complying with the U-value. The reduction in the component thickness with simultaneous increase in effective area is reason for celebration among builders.

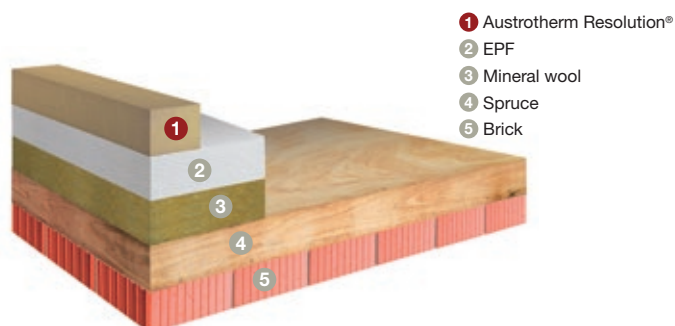
The future has class.

Outstanding fire protection class.

Within the European Union, a new fire class system has been introduced, the so-called Euroclass fire rating system. In terms of fire protection, Austrotherm Resolution® is in a league of its own. With fire protection class B in accordance with EN 13501-1, it meets very high requirements of fire protection and does not melt even in direct flames. With Austrotherm Resolution®, the highest fire protection requirements can be met.

In multiple laboratory tests, Austrotherm Resolution® has proven that it offers impressive and reliable shielding against fire and heat.

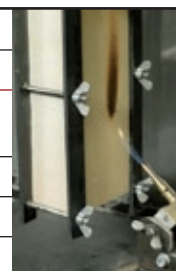
Same insulating value – Different material thicknesses



With an insulating value of $\lambda = 0.022 \text{ W}/(\text{mK})^*$, Austrotherm Resolution® guarantees the greatest space savings!

Fire protection- Products class

A	Mineral wool
B	Austrotherm Resolution®
C	Austrotherm Resolution® facade
D	Untreated wood
E	Polystyrene, PUR
F	Newspaper



With fire class B, s1, d0, there is no risk of smoke development or burning drips, because Austrotherm Resolution® consists of molecules that are extremely stable due to their interconnection.

The future is easy to process.

Austrotherm Resolution® is easy and simple to process. The boards can be cut easily with a fine-toothed hand saw or a sharp knife. It might be a new material, but you don't have to change how you process it. For example, the Austrotherm Resolution® facade is laminated with a thin Austrotherm EPS® F-PLUS layer, so that it can be processed in exactly the same way as a normal EPF board.

Best insulating value – slim constructions

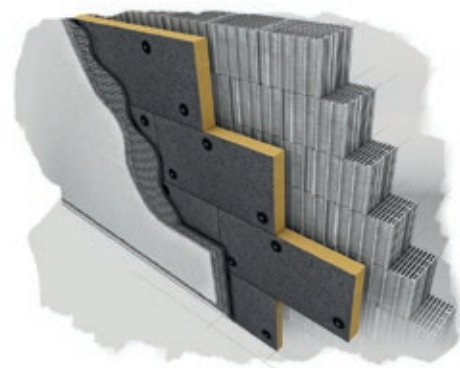
New Austrotherm Resolution®, with a Lambda value of 0.022 W/(mK)* and an insulating thickness of 120 mm, can achieve the same insulating value as traditional polystyrene with an insulating thickness of 200 mm.

Austrotherm **Re-solution**®
The Resol rigid foam solution.

Austrotherm Resolution® facade

More living space with greater profitability

What's the benefit of a slim facade? Valuable additional square metres of useful space, for a start, and improved profitability of your property. You hadn't counted on that? We'll do the calculations for you. For new buildings and for renovations – you only stand to gain.



Uncompromising in new buildings:

In urban areas in particular – where property costs are high or there are strict building regulations – the thinner insulation can free up valuable square metres, which will help to significantly increase the value of the property and its profitability. You can gain more useful living space on the same footprint. When building new properties, it is now possible to meet all legislative requirements and guarantee optimal thermal insulation, even where there are difficult structural conditions.

Uncompromising in renovations:

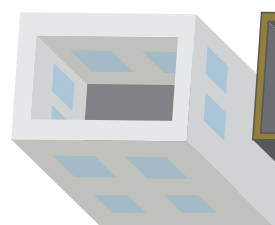
Thanks to the extremely good thermal insulation values of Austrotherm Resolution®, there is no need to dispense with thermal insulation in construction-related narrow corridors, balconies, entrance areas and many other places. This means a crucial increase in space can be achieved.

In renovation, it is possible for the first time to react optimally to the given circumstances. Structural features such as eaves, attics or dormers can be provided with thermal insulation without the need for structural changes.

More useful space on the same footprint: Example of a two-storey detached house:

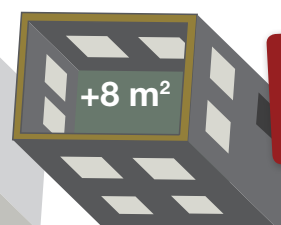
By using Austrotherm Resolution® at a thickness of 120 mm, you can increase the useful living space by 8 m². And all this with the same insulating value as 200 mm thick traditional EPS F.

Conventional insulation



130 m² effective area




Austrotherm Resolution®



138 m² effective area

with the same outside area requirement in this example

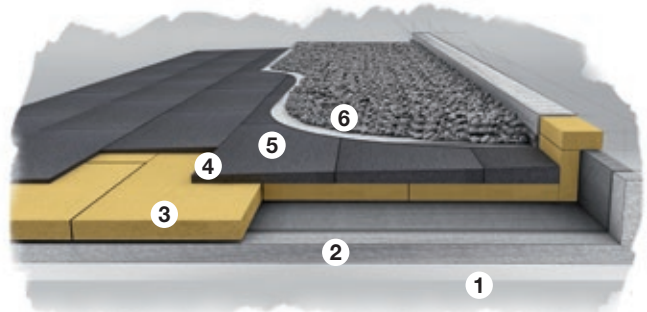
+8 m²
or
+3%
per floor

-  Super-slim – space-saving insulation solution
-  Quick and easy processing
-  Over 40% better thermal insulation than EPS F

*In accordance with EN 12667; in accordance with EN 13166, a calculating supplement of 2 mW must be added.

Austrotherm Resolution® flat roof

Extremely low installation height with extremely high insulating value



- | | |
|---|--|
| 1 Reinforced concrete ceiling on the gradient | 3 Austrotherm Resolution® flat roof |
| 2 Vapour barrier and equalisation layer | 4 Austrotherm EPS® sloping roof plus |
| | 5 Roof seal |
| | 6 Surface protection, gravel layer 16/32 |

A building loses up to 30% of its heat through the roof surfaces. To ensure that this valuable energy doesn't simply fly away, it is advisable to use the best possible thermal insulation. For roof insulation, Austrotherm® offers products with maximum thermal insulation. With the new super-slim Austrotherm Resolution® flat roof insulating boards, you can save a lot of weight thanks to a favourable weight/performance ratio. When renovating flat roofs, such as terraces, in which there is no space for thick insulation, a reasonable insulating level can now be achieved.

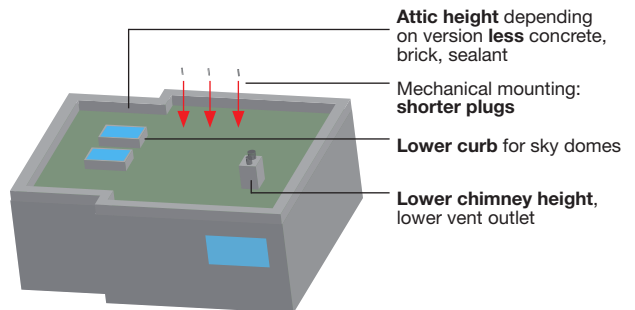
Lower installation height on flat roofing pays off.

Higher energy requirements mean the insulating thicknesses of normal insulating materials are growing. This in turn has an impact on the height of the attic: Its size is of course essentially determined by the overall design and the building height, but the damp-proofing of the roof at the attic must be implemented at least 15 cm above the top "layer". If the roof insulation has now already reached 35 cm, and if you add another 5 cm of gravel – plus the 15 cm bonding height (connecting height) above the top layer – then you have a minimum attic height requirement of 55 cm. The choice of insulating material is crucial when it comes to the height of the attic and associated additional cost savings in terms of connections, sky domes, pipe ducts and roof fittings. Roof openings – such as sky domes, chimneys or outlet vents – always represent potential leaks in the flat roof. Here, a minimum bonding height in accordance with the standards is required. If you work with more efficient insulation materials, such as Austrotherm Resolution® flat roof, everything becomes much more affordable, such as sky domes – with curbs of 30 instead of 50 centimetres' height, you save a lot of money.

An additional storey is possible

Builders and planners must adhere to a maximum permissible construction height. In extreme cases, it might not be possible to add another storey because it would be just a couple of centimetres too high. Austrotherm Resolution® flat roof and floor boards are slim but efficient, and help increase room height.

Cost saving through lower installation heights on flat roofs



If the flat roof is anchored, there is an additional cost saving, as fewer plugs are needed due to the thinner insulating material.

And, of course, you also require less sealing tape for attic construction. For chimney outlets and other roof openings, such as lightning protection, ventilation outlets or roof exit doors, the following therefore applies: Use Austrotherm Resolution® instead of traditional insulating materials – you'll save space and money.



Enormous weight reduction



Super-slim – space-saving insulation solution



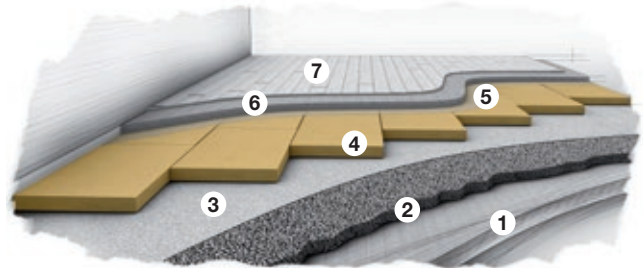
0.022 W/(mK)



Outstanding fire behaviour

Austrotherm Resolution® floors

Increased room height due to extremely low installation height



- | | |
|----------------------------|---------------------------------|
| 1 Reinforced concrete slab | 4 Austrotherm Resolution® floor |
| 2 Potential bound filling | 5 Separating layer |
| 3 Separating layer | 6 Screed |
| | 7 Floor covering |

Are you also interested in rooms with high ceilings? Then you won't gain anything with thick insulation layers. Floor insulation with the new super-slim Austrotherm Resolution® floor boards meets increased requirements of thermal protection with the smallest installation heights.

During renovation work, there is often too little space available for subsequent insulation of the floor, as the minimum room height has to be adhered to. Even just a few centimetres of installation height can have a significant impact here. Austrotherm Resolution® is compatible with all current screed types and offers the smallest installation height and easiest processing. Austrotherm Resolution® is also suitable for use with all kinds of heating screeds.



Super-slim – space-saving insulation solution



0.022 W/(mK)



Increased room height due to extremely low installation height



Outstanding fire behaviour

Austrotherm Resolution®

Customised cuts from one block: Insulate where and how you wish

Is your ideal insulating solution not available off the peg? With the endless possibilities of Austrotherm Resolution® blocks, there are no limits on your insulation wishes.

Austrotherm Resolution® product data

Product type	in accordance with ÖNORM EN 13166 (PF)
Delivery type Block	Length 2500 mm, Width: 1000 mm, Height: 1000 mm
Special board formats and individual cut-outs are possible.	
Lambda	$\lambda = 0.022 \text{ W}/(\text{mK})$
Compressive strength	120 kPa
Closed cell structure	> 90%
Resistance to water vapour diffusion	$\mu = 20 - 50$ (see wood)
Fire behaviour	B
Max. usage temperature	130 °C

The revolutionary block products of Austrotherm Resolution® allow all possible formats and shapes to be cut out of the insulating block easily and individually, with immediate effect. From pipe formwork to hulls – there are no limits on your creativity, and you can achieve maximum insulating performance.



Outstanding thermal insulation

Austrotherm facade profiles

The imagination knows no bounds.



The facade is the face of the house, and as such it reflects on the house's inhabitants. With individual facade profiles, a truly unique design can be created. Architects and builders can give their creativity free reign thanks to individual solutions for the facade design of modern buildings. Anyone who works with historical building structures understands the distinctive design options offered by facade profiles.

Wide range of uses

Facade profiles have a wide range of uses. They lend modern buildings an extraordinary emphasis, help to give new buildings a classical look in antique style or can be used for cost-effective renovation of old buildings. As the flexibility of Austrotherm profiles is guaranteed by the elastic DKF coating compound, radii can be bent on site according to the profile cross-section and size. Austrotherm® is also a specialist in historical replicas and has developed many profile versions for elegant facade designs. This allows for loving reconstruction of old buildings and careful decoration of new buildings.

The advantages:

- ▶ Individual design options
- ▶ Cost-effective and easy to process
- ▶ For modern and classical facades

Easy to use

Austrotherm facade profiles are robust, flexible and easy to process. Butt joints are bonded only with Austrotherm PU butt joint adhesive. One coat of facade paint is all that's needed.

Modern and individual facades with Austrotherm® facade profiles



Facade profiles are usually associated with classical old buildings and playful turn-of-the-century villas. But would you have suspected that there were facade design elements on this modern, new building? And yet, every cornice and every oriel partially consists of profiles that have just as much reason to exist today as ever before. Individual, easy to process and cost-effective: That is the requirements profile.



Modern new building with customised profiles

Residential and functional buildings can have a charismatic exterior thanks to developments in modern aesthetics and facade profiles. Austrotherm® produces made-to-measure modern profiles and enables innovative facades that are guaranteed to attract attention. There are no limits on the design ideas of planners and architects. The result is profiles with an entirely unmistakable, independent character.

Online search

Go to austrotherm.de to search for many other facade profiles (special range) online

New buildings with class

Austrotherm facade profiles for classical style



If you want to maintain a classically antique appearance in a new building, then Austrotherm® facade profiles are just the thing for you. The wide range of different profiles can turn any home with bare walls into a true architectural jewel.



BOM generator

Using this online program, you can generate a customised list of materials for facade profiles and adhesives.



Classical and prestigious

Austrotherm®, the specialist in historical replicas, has developed many profile versions for elegant facade designs. An appropriate facade design lends a classical look even to new buildings.

Whether it's a classical detached house or an opulent shopping centre, Austrotherm facade profiles give every building type an individual appearance.

Renovate old buildings cheaply and stylishly with Austrotherm facade profiles

Classical facades are exposed to high stresses through environmental influences. Even profiles of sandstone, quarried by stonemasons, are not permanently resistant and are practically unaffordable as original replicas. During renovation of old buildings, Austrotherm facade profiles allow for cost-effective, authentic reproduction that lasts.



1959: Wilhelminian house,
Vienna, Baumgasse



2012: The same house without
facade profile



2013: Thanks to the Austrotherm facade profile
it is now as originally intended again

Austrotherm® customised cuts

Customised for all requirements, from industrial to artistic



Anything is possible

Austrotherm® has a separate team for customized cuts. The cuts are produced with state of the art systems in the Pinkafeld plant, guaranteeing top quality and dimensional precision. They are prepared exactly in accordance with individual dimensional drawings and, according to requirements (e.g. higher pressure-resistance), also offer different material qualities. This in-house customised cuts team means Austrotherm® can respond very flexibly to short-notice changes and guarantee quick, punctual deliveries.

The advantages:

- ▶ For industry, packaging and the creative field
- ▶ High-performance insulating materials and material qualities
- ▶ Precision contour cuts and cuts-outs
- ▶ Quick and punctual delivery
- ▶ Flexible use and easy to process

▶ **Customised cuts of Austrotherm Resolution®:** The slim customised cut for industrial use

▶ **Customised cuts of Austrotherm EPS®:** Block by block, good ideas for industry, construction and creation

▶ **Customised cuts of Austrotherm XPS®:** Customised for pressure and humidity



The Austrian governing body Quality Austria, the leading economy and society contact for all questions regarding integrated management systems, based on quality, environment, safety and health protection management as well as the subject of corporate quality, has issued an ISO certificate for Austrotherm® Austria.

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