

ALUthermo®

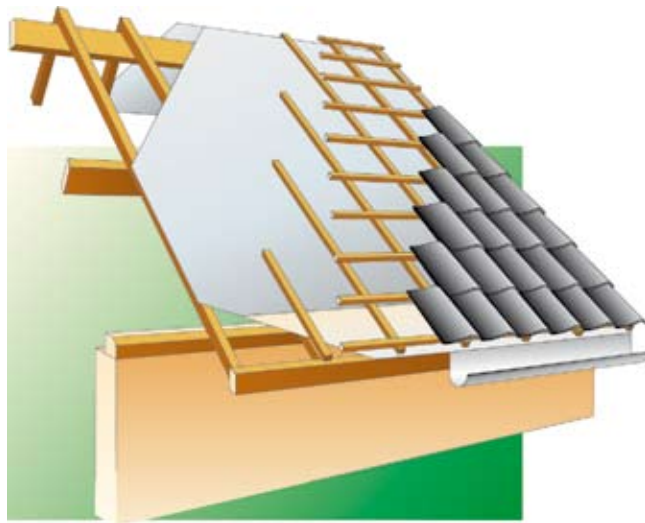
... the reflective insulation!



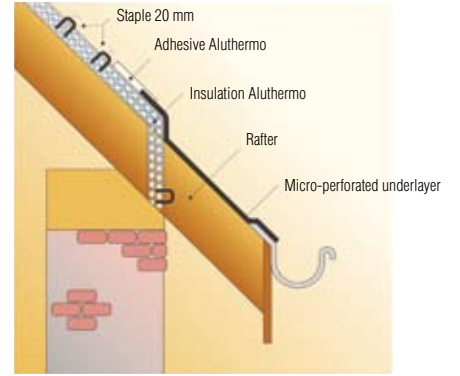
Warm in winter, fresh in summer



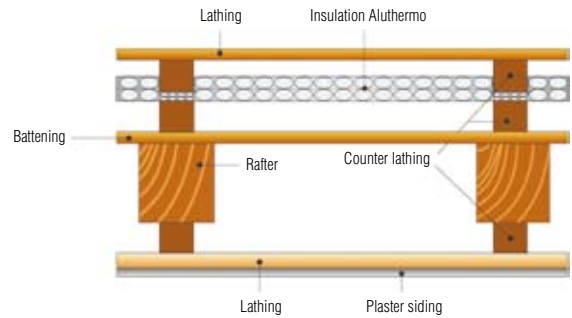
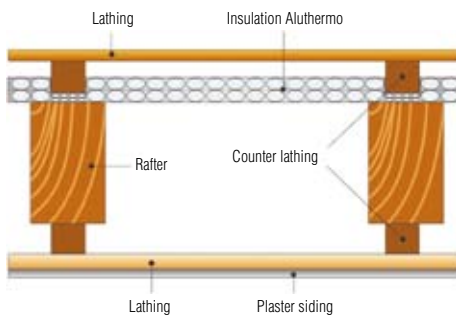
recyclable



without battening



with battening



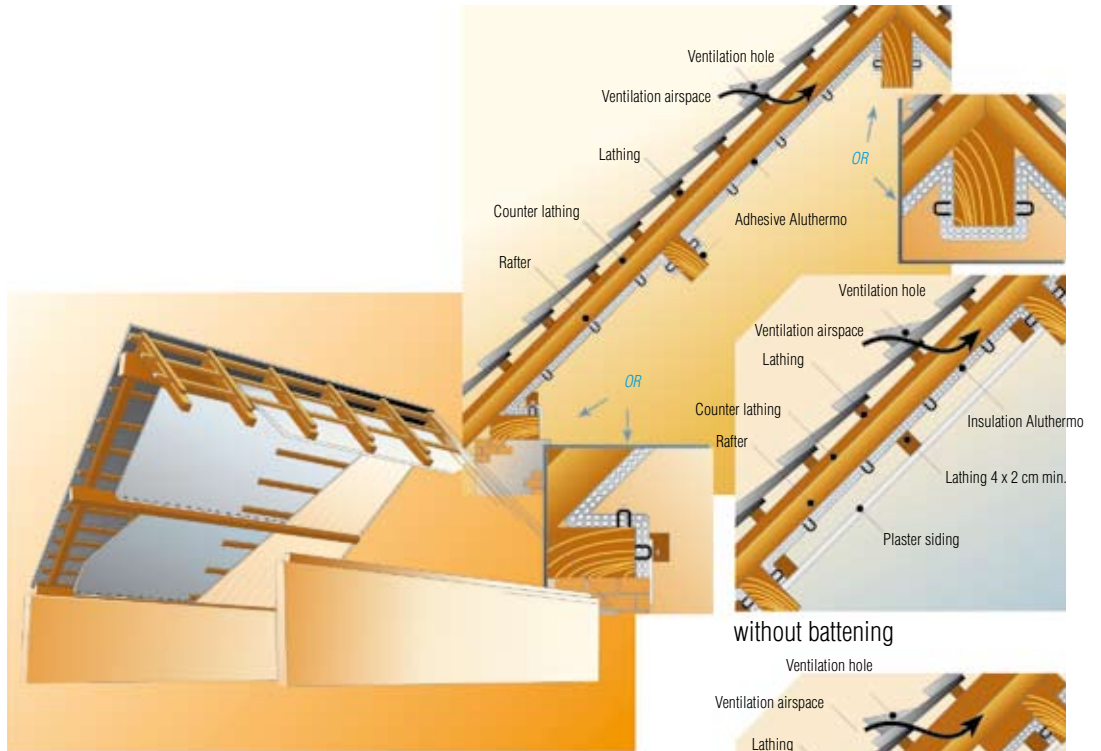
ADVANTAGES

- Roof underlayer, insulation and vapour barrier in a single operation
- Conventional timber frame with reduced timber volume
- Extra height and space in your loft
- Possibility of interior design with exposed beams
- Avoids having to demolish the interior ceiling when renovating
- Waterproof
- Quick and easy to install
- Minimum thickness with maximum insulating effect
- Does not drift
- Does not sag

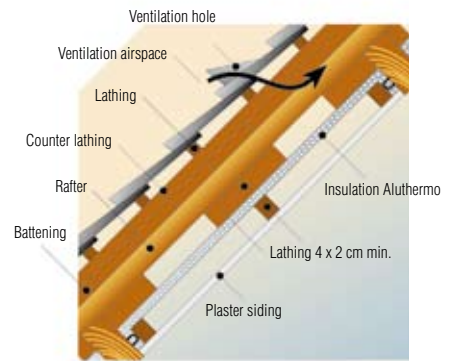
Roof insulation from exterior, with or without decking



Warm in winter, fresh in summer



without battening



with battening

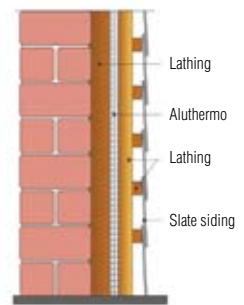
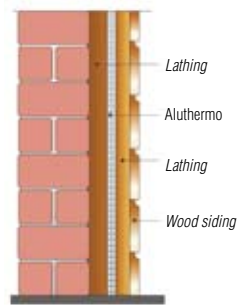
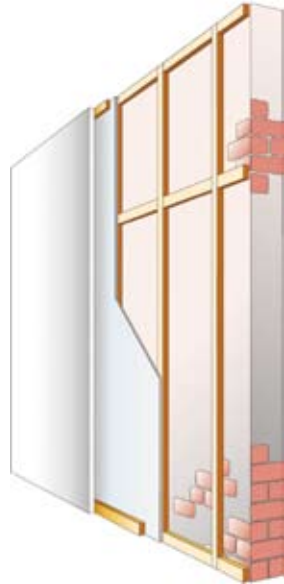
ADVANTAGES

- Conventional timber frame with reduced timber volume
- Extra height and space in your loft
- Possibility of interior design with exposed beams
- Avoids the extra burden of a second rafter if it does not allow for insulation between rafters and reduction in height
- Easy installation, even when working with rounded log structures
- Easy insulation, even if the rafters are irregularly spaced
- Water and airtight
- Quick and easy to install
- Minimum thickness with maximum insulating effect
- Does not drift
- Does not sag
- Aluthermo® is simultaneously an insulation and a vapour barrier
- Humidity resistant even if there is no roof underlayer

Roof insulation from inside



Warm in winter, fresh in summer



ADVANTAGES

- Gain in habitable space
- Allows the possibility of insulating the walls from inside if insulation from outside is impossible
- Minimum thickness with maximum insulating effect
- Does not drift
- Does not sag
- The air space created on the inside ensures easy installation of heating and water pipes and electrical systems
- Quick and easy to install
- Aluthermo® adapts to all shapes and surfaces

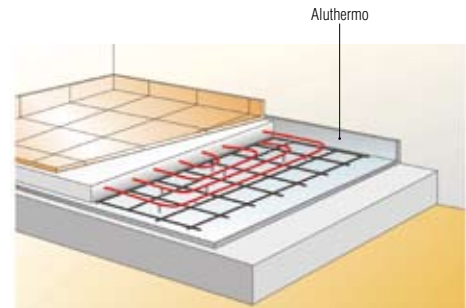
Wall insulation (interior and exterior)



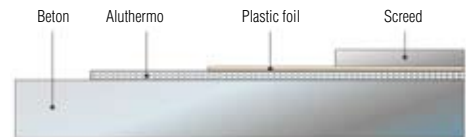
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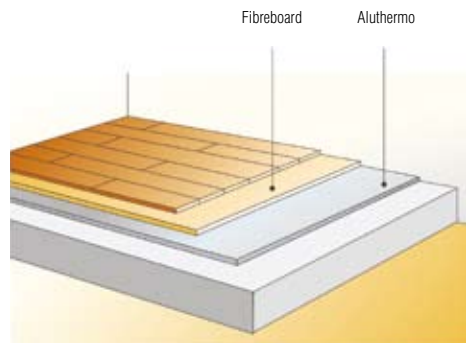
Execution with floor heating



Execution under screed



Execution under timber floors



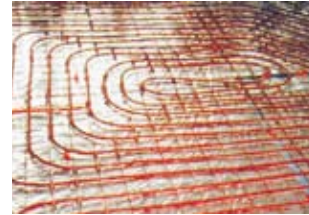
Execution under raised wooden floor (false floor)



ADVANTAGES

- Installation under screed is appropriate if the floor is on a slope or the boarding is placed too high
- Under screed and under the floor, Aluthermo® acts as a heat distributor
- Very good acoustic insulation against impact noise
- Gain in habitable space
- Aluthermo® adapts to all shapes and surfaces

under screed and under floorboards



Warm in winter, fresh in summer

Aluthermo[®], your energy-saving partner

Aluthermo[®], the thin-layer reflective insulation system, has been used for many years both for new buildings and in renovation.

This flexible complex consisting of several layers of aluminium encloses dry air in its inner films. The result is efficient energy-saving.

Its exceptional adaptability makes it very easy to install. Aluthermo[®] can therefore be used in almost every imaginable field of thermal insulation.

Its durability has been perfected by proven leading-edge technology, so that season after season, Aluthermo[®] is the new standard in comfort.

Aluthermo[®] description:

Aluthermo[®] is an insulating material that works by reflection and consists of two layers separated by a honeycomb structure of air bubbles enclosed in a fireproofed polyethylene film, which is covered on both sides by a 30-micron thick foil of pure aluminium that has been polished and treated against oxidation.

The various layers are thermally welded together over their full surface areas. The obtained complex is semi-rigid and consists of the following successive layers:

A+D 99% pure aluminium film, 30 microns thick

B+C Fire-retardant polyethylene film containing bubbles of dry and stable air

The air enclosed in the bubble films is dry and stable. Any condensation is therefore prevented within the temperature ranges recommended for each thickness of Aluthermo[®] (see Applications and technical characteristics).

Aluthermo[®]



Aluthermo Quattro[®]



Aluthermo Quattro[®] description:

Aluthermo Quattro[®] is the first thin, multi-reflector, multi-layer insulation system with all surfaces fully thermally welded together.

Aluthermo Quattro[®] consists of two 30-micron thick outer layers of polished and anti-oxidation treated pure aluminium separated by two honeycombed layers of air bubbles enclosed inside a fireproofed polyethylene film, together with two extra layers of pure aluminium foil and a fireproofed and water-repellent polyethylene foam.

Aluthermo Quattro[®] provides an almost impenetrable barrier against infrared radiation in both summer and winter.

To make the installation easier Aluthermo Quattro[®] is, like all other Aluthermo[®] insulation, thermally welded together over its full surface areas

The obtained complex is semi-rigid and consists of the following successive layers:

1. A layer of pure aluminium foil, 30 microns thick, treated against oxidation
2. A layer of dry air bubbles enclosed in fire-retardant polyethylene
3. A layer of pure aluminium foil treated against oxidation
4. A fire-retardant and water-repellent polyethylene foam
5. A layer of pure aluminium foil treated against oxidation
6. A layer of dry air bubbles enclosed in fire-retardant polyethylene
7. A layer of pure aluminium foil, 30 microns thick, treated against oxidation



**Don't look at the stature...
She protects you against
everything !**



For any type of surface



Easy to place

Aluthermo® 7 mm, 14 mm, 21 mm and Aluthermo Quattro® are reflective thin insulation systems that help to save energy by acting on all modes of heat transfer:



Conduction	Transmission of heat from one body to another by direct contact.	The various components of Aluthermo® provide an efficient brake against conduction phenomena inside the product.
Convection	Movement of air due to a difference in temperature.	Aluthermo® is totally airtight.
Thermal radiation	Transmission of heat by infrared radiation without direct contact between the bodies.	Aluthermo® is covered on both sides by a film of polished aluminium measuring 30 µm thick. This aluminium has very low emissivity and therefore provides an outstanding barrier to transmission by radiation.
Humidity	The higher the moisture content of the air, the more energy conductive it becomes	The inner polyethylene films of Aluthermo® contain dry air that is not in contact with the ambient air. This inner film is protected by aluminium, thereby creating a complex that is impermeable to moisture.

Function



Warm in winter, fresh in summer



Technical characteristics	Aluthermo Quattro®	Aluthermo® 21 mm	Aluthermo® 14 mm	Aluthermo® 7 mm
Thickness	+/- 10 mm	+/-21 mm	+/-14 mm	+/-7 mm
Bubble diameter	10 mm	30 mm	18 mm	10 mm
Bubble height	4 mm	12 mm	8 mm	4 mm
Polyethylene film thickness	150 µm	200 µm	200 µm	150 µm
Number of aluminium films	4	2	2	2
Thickness of polyethylene foam	3 mm	-	-	-
Thickness of outer aluminium film	30 µm	30 µm	30 µm	30 µm
Dimensions of roll	1.20 x 25 m	1.25 x 25 m	1.25 x 25 m	1.25 x 25 m
Area per roll	30.00 m ²	31.25 m ²	31.25 m ²	31.25 m ²
Weight	+/- 750 g/m ²	+/- 620 g/m ²	+/- 550 g/m ²	+/- 550 g/m ²
Permissible load with 10% deformation	543 kg/m ²	-	-	250 kg/m ²
Permissible load with 20% deformation	1,232 kg/m ²	-	-	-
Bursting resistance	2,423 kg/m ²	-	-	1,000 kg/m ²
Equivalent thermal resistance	5,70	4,87	3,79	2,64
Equivalent U value:	0,175	0,205	0,264	0,379
Acoustic attenuation	Rrose = 34.3 db(A) Rroad = 28.3 db(A)	Rrose = 27 db(A) Rroad = 24 db(A)	-	-
Impact noise attenuation	ΔLw = 22dB	-	-	ΔLw = 26 dB
Operating temperatures	-40°C à +80°C -40°C to +80°C	-40°C à +80°C -40°C to +80°C	-40°C à +80°C -40°C to +80°C	-40°C à +80°C -40°C to +80°C

Fully waterproof, non-rotting
 Fire protection class M1 – A – B1
 Non-allergic and non-toxic - Non-sagging
 No condensation within the normal temperature range
 Dry air bubbles with no possibility of contact with the outside air
 Recyclable

Packaging



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	Aluthermo Quattro®	Aluthermo® 21 mm	Aluthermo® 14 mm	Aluthermo® 7 mm
Roof from outside	●	●		
Roof from inside, cold climate	●	●		
Roof from inside, moderate climate	●	●	●	
Cladding	●	●	●	
Interior walls	●	●	●	●
Exterior walls	●	●	●	●
Under screed with/without floor heating	●			●
Under floorboards or raised „false“ wooden floor	●			●
Industrial buildings	●	●	●	●
Supplementary insulation, vapour barrier	●	●	●	●

Other applications: please contact Aluthermo SA

Varied applications



Warm in winter, fresh in summer

The thin reflective insulation

The professional quality

Fully waterproof, non-rotting

- Fire protection class M1 – A – B1
- 30 micron thick pure aluminium
- Treated against oxidation
- Non-allergic and non-toxic,
- Antistatic
- Non-rotting
- Small stock volume
- Light
- Recyclable
- Semi-rigid and made in one piece
- No condensation
- Easy manipulation
- Adapts to all shapes and surfaces
- Equivalent U value: 0,175



Varied applications



Warm in winter, fresh in summer



... the reflective insulation!

The professional quality

