

Aluthermo® - Technical data sheet

OPTIMA

Lose a minimum of space and win a maximum of performance for the best possible EPC.

HOW DOES IT WORK?

OPTIMA is composed of the following compressible, successive layers:

- 1 a film of pure 30 microns thick aluminium, treated against oxidation
- 2 a layer of bubbles of dry air enclosed in polyethylene
- 3 a moisture-proof polyester fiber
- 4 a layer of bubbles of dry air enclosed in polyethylene
- 5 a film of pure 30 microns thick aluminium, treated against oxidation

The aluminium sheets reflect thermal radiation summer and winter, while the polyester wadding core and the dry, stable air trapped in the bubble film effectively slow the transfer of energy by conduction. This thin, high-performance insulation material also offers an impermeable barrier to moisture and is vapour proof.

TECHNICAL CHARACTERISTICS

Dimensions of the roll	1,20 x 15 m (± 2%)
Surface area per roll	18 m ²
Weight	± 1100 g/m ²
Thickness	± 42 mm
Operating temperature range	-55°C to +80°C
Fire resistance classification	F
Thermal core resistance	R = 1,07 m ² .K/W (EN 12667)
Thermal resistance in horizontal flux	R = 2,37 m ² .K/W (EN 16012) (*)
Thermal conductivity	λ = 0,039 W/(m.K) (EN 12667)
Thermal performance	Up to 29% more effective than 200 mm of mineral wool (**)(**)
Emissivity	< 0,05 (EN 16012)
Acoustic attenuation	Rw (C; Ctr) = 41 (-5; -13) dB
Sd value	> 6000 m
Number of the aluminium films	2
Thickness of the polyester fiber	± 37 mm
Thickness of the outer aluminium film	30 microns

(*) Performance data only valid for the installation between 2 air gaps without direct contact (see installation instructions of the product).

(**) Thermal performance measured by the Eliosys laboratory, comparing the energy consumption of a structure insulated once with Aluthermo and once with 200 mm of mineral wool (λ 0.040 W/m.K.). In the absence of consensus on the standard, this result is not considered in the calculation of the EPC or the obtaining of a subsidy. See the Eliosys test report on www.aluthermo.com.



APPLICATIONS



- On the roof, from the inside
- On the walls from inside
- Under the floor with air gaps

ADVANTAGES

- EPC & LABC certified
- Insulation and vapour barrier all in one
- Easy to install as it is welded across its entire surface
- Multi-reflective and multi-layer with a reinforced thermal and acoustic performance
- Reduces thermal bridges
- Durable as pure aluminium

