

New times
New solutions

REFLECTIVE

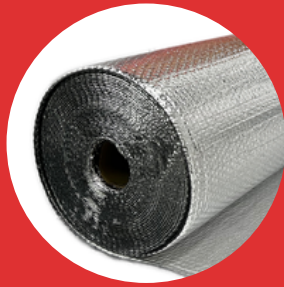
THERMAL INSULATION

 **Optimer System**
www.optimersystem.com

POLY**REFLEX**®


Product families

Bubbles



Polyester fibres

How is heat transmitted?

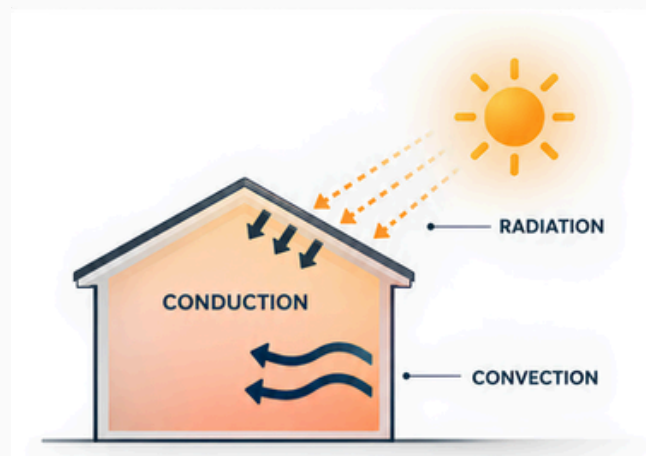
Radiation occurs when there are two bodies close together and the one at a higher temperature gives up heat to the one at a lower temperature through a permeable medium such as air.

Convection occurs when a fluid (air) at a different temperature moves in contact with a body (or with other air at a different temperature).

Conduction occurs in solid bodies when there is a temperature difference between two objects and they come into direct contact with each other.



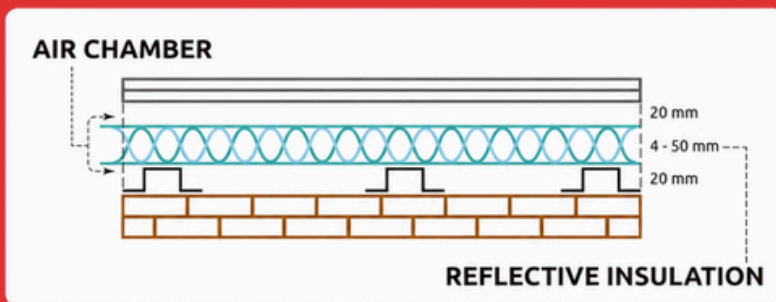
**ETA/ETE
13-525**



Thermal Resistance

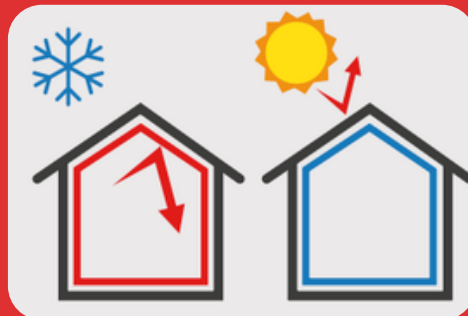
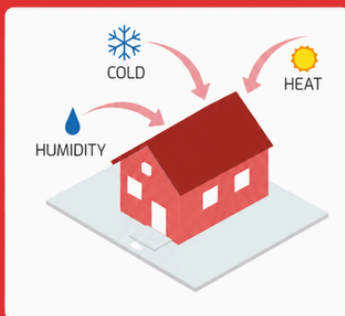
HOW IS IT CALCULATED?

Thermal resistance is the capacity of a material or system to insulate a building. The higher the R value (Thermal Resistance), the more effective the insulation.



Thermal resistance is the capacity of a material or system to insulate. The higher the R, the more effective the insulation.

In accordance with product standard UNE EN 16863:2024 and UNE-EN 22097, with two sealed air gaps. Therefore, for these insulations to be highly functional, it is essential to install them between 2 air gaps of at least 2 cm thick each.



The result is a stable, pleasant temperature in both winter and summer. In winter, heat is retained inside the home and energy is saved on heating. In summer, overheating is limited by reflecting radiation, sending heat back outwards.

Advantages

Energy saving

Increased usable living space

Thermal comfort

Quick and easy installation

Durable and guaranteed insulation

They protect the environment

POLYREFLEX PROVIDES INSULATION AGAINST COLD, HEAT AND MOISTURE.



PRODUCTS
AND
APPLICATIONS

PolyREFLEX®, BUBBLES



Dimensions:
25m² (1,25 x 20 m)

Weight: 244 g / m²

Thickness
7 mm
7 layers overall

THERMAL RESISTANCE (R)*

Roofing
R = 2,39 m².K/W
2 air cavities of 4 cm

Walls and façades
R = 1,43 m².K/W
2 air cavities of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.07/0.09 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 91% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.11 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in roofing: 2,39 (with two 4 cm air chambers) (UNE-EN ISO 6946:2021)
Thermal resistance in suspended ceiling: 1,25 (with one 4 cm air chamber) (UNE-EN ISO 6946:2021)
Thermal resistance in walls: 1,43 (with two 2 cm air chambers) (UNE-EN ISO 6946:2021)
Aluminum purity: 98,50%
Includes radon barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1,d0 (within a system) / Euroclass F (EN 13501-1:2002) (Exposed)
Estimated service life: 25 years



Important: Product installation must be carried out following the recommended characteristics. It is advised to seal joints and connections with metallized adhesive tape Polyfix. We are not responsible if the expected results are not achieved due to improper installation.

COMPOSITION

Reflective thermal insulation composed of two outer layers of protected aluminum, three inner polyester fiber layers, and two reflective PET aluminum films between the fiber layers.

Longitudinally heat-sealed, with no seams or intermediate welds.

APPLICATION

Walls and façades (vertical installation on the interior or exterior).
Roofs and ceilings (horizontal or inclined installation on the interior side).

Internal partitions and divisions.
Suitable for any type of construction, whether new construction, renovation, aiming to use airtight cavities on both sides of the insulation.

Traditional construction systems, Steel Frame, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat flow through conduction.
- Longitudinal heat-sealed product to ensure airtightness of the air chambers and prevent the entry of humidity into the fibers, avoiding the spread of viruses, bacteria, and fungi.
- Protected exterior aluminum to guarantee low emissivity throughout the product's lifetime and maintain insulation performance.
- Easy and quick to install and use.

7 mm

(+ air chambers)

54 mm

50 mm

52 mm

57 mm

POLYREFLEX MULTI 7-7

Expanded Polystyrene (EPS)

Extruded Polystyrene (XPS)

Mineral Wool

Glass Fiber





Dimensions:
15m² (1,25 x 12 m)

Weight: 320 g / m²

Thickness
20mm
5 layers overall

THERMAL RESISTANCE (R)*

Roofing
R = 2,84 m².K/W
2 air cavities of 4 cm

Walls and façades
R = 1,88 m².K/W
2 air cavities of 2

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.07/0.09 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 91% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.56 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in winter: 2,84 (with an air chamber of 4 cm) (UNE-EN ISO 6946:2021)
Wall thermal resistance: 1,7 (with two air chambers of 2 cm) (UNE-EN ISO 6946:2021)
Core air permeability: 1,88 ((with two air chambers of 2 cm) (UNE-EN ISO 6946:2021)
Aluminum purity: 98,50%
Radiant barrier with anti-radon
Resistance to water vapor: Class A (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1,d0 (within a system) / Euroclass F (EN 13501-1:2002) (Exposed)
Estimated service life: 25 years



Important: Product installation must be carried out following the recommended characteristics. It is advised to seal joints and connections with metallized adhesive tape Polyfix. We are not responsible if the expected results are not achieved due to improper installation.

COMPOSITION

Reflective thermal insulation composed of two outer layers of protected aluminum, three inner polyester fiber layers, and two reflective PET aluminum films between the fiber layers.

Longitudinally heat-sealed, with no seams or intermediate welds.

APPLICATION

Walls and façades (vertical installation on the interior or exterior).
Roofs and ceilings (horizontal or inclined installation on the interior side).

Internal partitions and divisions.
Suitable for any type of construction, whether new construction, renovation, aiming to use airtight cavities on both sides of the insulation.

Traditional construction systems, Steel Frame, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat flow through conduction.
- Longitudinal heat-sealed product to ensure airtightness of the air chambers and prevent the entry of humidity into the fibers, avoiding the spread of viruses, bacteria, and fungi.
- Protected exterior aluminum to guarantee low emissivity throughout the product's lifetime and maintain insulation performance.
- Easy and quick to install and use.

20 mm

(+ air chambers)

71 mm

66 mm

68 mm

75 mm

POLYREFLEX
MULTI 5-20

Expanded
Polystyrene
(EPS)

Extruded
Polystyrene
(XPS)

Mineral
Wool

Glass Fiber



COMPOSITION

Reflective thermal insulation composed of two outer layers of protected aluminum, three inner polyester fiber layers, and two reflective PET aluminum films between the fiber layers.

Longitudinally heat-sealed, with no seams or intermediate welds.

APPLICATION

Walls and façades (vertical installation on the interior or exterior). Roofs and ceilings (horizontal or inclined installation on the interior side).

Internal partitions and divisions. Suitable for any type of construction, whether new construction, renovation, aiming to use airtight cavities on both sides of the insulation.

Traditional construction systems, Steel Frame, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat flow through conduction.
- Longitudinal heat-sealed product to ensure airtightness of the air chambers and prevent the entry of humidity into the fibers, avoiding the spread of viruses, bacteria, and fungi.
- Protected exterior aluminum to guarantee low emissivity throughout the product's lifetime and maintain insulation performance.
- Easy and quick to install and use.

Thickness
33 mm
7 layers
overall

Dimensions:
15m² (1,25 x 12 m)

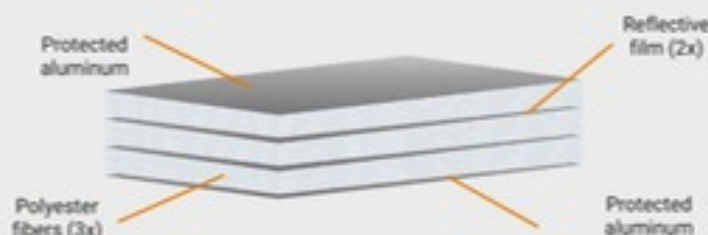
Weight: 395 g / m²

THERMAL RESISTANCE (R)*

Roofing
 $R = 3,18 \text{ m}^2 \cdot \text{K/W}$
2 air cavities of 4

Walls and façades
 $R = 2,22 \text{ m}^2 \cdot \text{K/W}$
2 air cavities of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.07/0.09 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 91% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.90 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in roofs: 3.18 (with two 4 cm air chambers) (UNE-EN ISO 6946:2021)
Thermal resistance in ceilings: 2.04 (with an air chamber of 4 cm) (UNE-EN ISO 6946:2021)
Thermal resistance in walls: 2.22 (with two 2 cm air chambers) (UNE-EN ISO 6946:2021)
Aluminum purity: 98.5%
Includes radon barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (Exposed)
Estimated service life: 25 years.



Important: Product installation must be carried out following the recommended characteristics. It is advised to seal joints and connections with metallized adhesive tape Polyfix. We are not responsible if the expected results are not achieved due to improper installation.

33 mm

(+ air chambers)

84 mm

78 mm

80 mm

88 mm

POLYREFLEX MULTI 7-33

Expanded
Polystyrene
(EPS)

Extruded
Polystyrene
(XPS)

Mineral
Wool

Glass Fiber





Dimensions:
15m² (1,25 x 12 m)

Weight: 480 g / m²

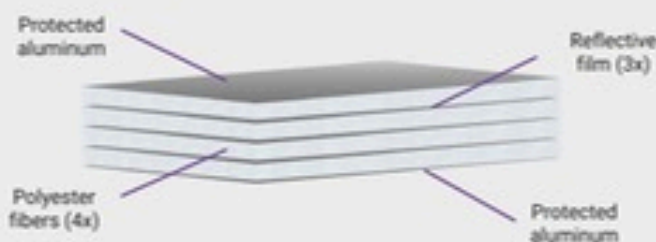
Thickness
50mm
9 layers
overall

THERMAL RESISTANCE (R)*

Roofing
R = 3,59 m².K/W
2 air cavities of 4 cm

Walls and façades
R = 2,63 m².K/W
2 air cavities of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.07/0.09 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 91% (UNE-EN ISO 22097:2023)
Core thermal resistance: 1.31 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance of the coating: 3.59 (with two 4 cm air chambers) (UNE-EN ISO 6946:2021)
Thermal resistance of the complete roof: 2.45 (with one 4 cm air chamber) (UNE-EN ISO 6946:2021)
Thermal resistance in walls: 2.63 (with two 2 cm air chambers) (UNE-EN ISO 6946:2021)
Aluminum purity: 98.5%
Radon gas barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Euroclass B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (exposed)
Estimated lifespan: 25 years
Dimensions: 15m²



Important: Product installation must be carried out following the recommended characteristics. It is advised to seal joints and connections with metallized adhesive tape Polyfix. We are not responsible if the expected results are not achieved due to improper installation.

COMPOSITION

Reflective thermal insulation composed of two outer layers of protected aluminum, three inner polyester fiber layers, and two reflective PET aluminum films between the fiber layers.

Longitudinally heat-sealed, with no seams or intermediate welds.

APPLICATION

Walls and façades (vertical installation on the interior or exterior).
Roofs and ceilings (horizontal or inclined installation on the interior side).

Internal partitions and divisions.
Suitable for any type of construction, whether new construction, renovation, aiming to use airtight cavities on both sides of the insulation.

Traditional construction systems, Steel Frame, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat flow through conduction.
- Longitudinal heat-sealed product to ensure airtightness of the air chambers and prevent the entry of humidity into the fibers, avoiding the spread of viruses, bacteria, and fungi.
- Protected exterior aluminum to guarantee low emissivity throughout the product's lifetime and maintain insulation performance.
- Easy and quick to install and use.



50 mm

(+ air chambers)

100 mm

92 mm

95 mm

105 mm

POLYREFLEX MULTI 9-50

Expanded
Polystyrene
(EPS)

Extruded
Polystyrene
(XPS)

Mineral
Wool

Glass Fiber





Dimensions:
120 m² (1,20 x 100 m)

Weight: 159 g / m²

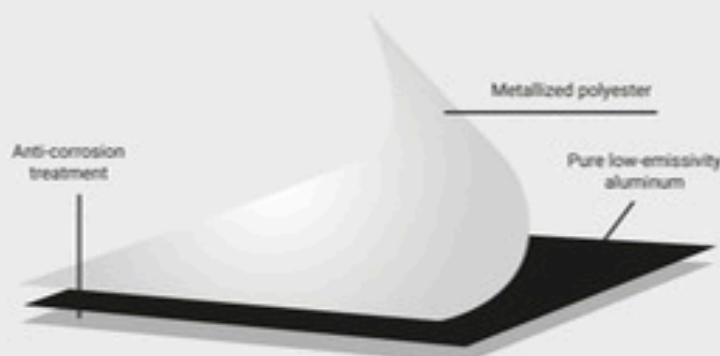
Thickness
130
microns

THERMAL RESISTANCE (R)*

Roofs:
R = 2,28 m².K/W
2 air chambers of 4 cm

Walls and facades:
R = 1,32 m².K/W
2 air chambers of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Core Thermal Resistance: 0.00 m²K/W
Aluminum purity: 99%
Aluminum emissivity: 0.05
Aluminum emissivity: 0.12
Waterproof and water vapor barrier
Radon gas barrier
Anti-corrosion treatment
Dimensional stability (Δ%): Width 0 / Length -0.1 / Thickness 5



Proper installation of the product inside air chambers is important to guarantee the characteristics of the product. It is recommended to use Poly foil tape and Polyized metallized polyester. We are not responsible if expected results are not achieved due to improper installation.

COMPOSITION

Reflective thermal insulation, composed of an external layer of lacquered pure aluminum and a metallized polyester film with a thickness of 12 μm.

APPLICATION

Walls and facades (vertical installation indoors or outdoors).
Roofs and ceilings (horizontal and/or inclined installation indoors or outdoors). Suitable for any type of construction, whether new construction or renovation. It is recommended to use air chambers on both sides of the insulation.

Traditional construction, Steel-Frame systems, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Longitudinally welded product to ensure airtightness of air chambers, prevent dust and dirt from entering the fibers, and inhibit the growth of fungi, viruses, and bacteria.
- Protected exterior aluminum to ensure low emissivity throughout its lifetime and maintain the insulation performance continuously.
- Easy and quick to install and use.

STRIP DIMENSIONS

Width:
1.20 m

Length:
100 m

Thickness:
130 micras

Weight:
159 g/m²





Dimensions:
90m² (1,20 x 75 m)

Weight: 140 g / m²

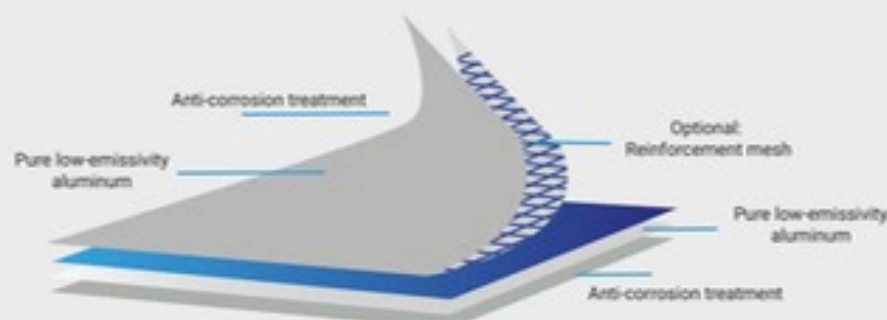
Thickness
100
microns

THERMAL RESISTANCE (R)*

Roofs:
R = 2,28 m².K/W
2 air chambers of 4 cm

Walls and facades:
R = 1,32 m².K/W
2 air chambers of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Core Thermal Resistance: 0.00 (m²·K/W)
Emissivity: 0.05
Reflectivity: 95%
Aluminum purity: 99%
Reinforcement mesh weight: 16 g/m²
Waterproof and water vapor barrier
Radon gas barrier
Anti-corrosion treatment
Dimensional stability (Δ%): Width 0 / Length -0.1 / Thickness 5



Proper installation of the product inside sealed air chambers is important to ensure product performance. It is recommended to seal joints with metallized polyester sealing tape. We disclaim any responsibility if expected results are not achieved due to improper or incorrect installation.

COMPOSITION

Reflective thermal insulation, composed of two layers of lacquered pure aluminum with a central polyethylene film reinforced with a fiberglass mesh (5 x 5 mm pattern).

APPLICATION

Walls and Facades (vertical installation indoors or outdoors).
Roofs and Ceilings (horizontal and/or inclined installation indoors or outdoors). Divisions with neighboring properties. Suitable for any type of construction, whether new construction or renovation. It is recommended to use air chambers on both sides of the insulation.

Traditional construction, Steel-Frame systems, wooden houses, modular construction, or industrialized construction.



SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Longitudinally sealed product to ensure airtightness of internal air chambers and prevent dust, dirt, and moisture from entering the fibers, thereby preventing the growth of viruses, bacteria, and fungi.
- Protected exterior aluminum to ensure low emissivity throughout its service life, maintaining continuous insulation performance.
- Easy and quick to install and use.

STRIP DIMENSIONS

Width:
1.20 m

Length:
75 m

Thickness:
100 micras

Weight:
140 g/m²





Dimensions:
18m² (1,20 x 15 m)

Weight: 200 g / m²

Thickness
3 mm
3 layers overall

THERMAL RESISTANCE (R)*

Roofs
R = 1,25 m².K/W
4 cm air chambers

Walls and façades
R = 0,77 m².K/W
4 cm air chambers

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.05/0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Reflectivity: 95% (UNE-EN ISO 22097:2023)

Thermal resistance of core: 0.11 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Thermal resistance on roof: 1.25 (with an air chamber of 2 cm) (UNE-EN ISO 6946:2021)

Thermal resistance on ceiling: 1.25 (with an air chamber of 2 cm) (UNE-EN ISO 6946:2021)

Thermal resistance on walls: 0.77 (with an air chamber of 2 cm) (UNE-EN ISO 6946:2021)

Aluminum purity: 99%

Radiant barrier performance

Water vapor diffusion resistance (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)

Fire classification: Class B-s1,d0 (within a system) / Euroclass F (exposed) according to EN 13501-1:2002

Estimated service life: 25 years



It is important that the product is always installed with air chambers to ensure the stated performance characteristics. Installation must follow the Polyreflex technical data sheet. We are not responsible for results that do not meet expectations due to incorrect or inadequate installation.

COMPOSITION

Reflective Thermal Insulation composed of an external layer of pure lacquered aluminum, thermally sealed to an internal layer of polyethylene air bubbles (3-4 mm).

The product is thermally sealed across its entire surface, ensuring a continuous bond between its layers.

APPLICATION

Walls and facades (vertical installation, interior or exterior). Roofs and coverings (horizontal or inclined installation, interior or exterior). Partitions with neighboring walls (party walls). Suitable for any type of construction, whether new or renovation projects. Use air chambers on both sides of the insulation material to achieve better performance.

Suitable for traditional construction, steel-frame systems, wooden houses, modular construction, or industrialized building systems.



SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Product welded longitudinally to ensure airtight air chambers and prevent dust, dirt, and moisture from entering the air bubbles, helping to prevent the growth of viruses, bacteria, or fungi.
- Protected exterior aluminum guarantees low emissivity throughout its service life, ensuring consistent insulation performance.
- Easy and quick to install and use.



3 mm

(+ air chambers)

29 mm

27 mm

28 mm

31 mm

POLYREFLEX UNO

Expanded Polystyrene (EPS)

Extruded Polystyrene (XPS)

Mineral Wool

Glass Fiber



COMPOSITION

Reflective thermal insulation composed of two external layers of pure low-emissivity aluminum with a core of polyethylene air bubbles (4 mm).

Longitudinally thermobonded product without seams or intermediate welds.

APPLICATION

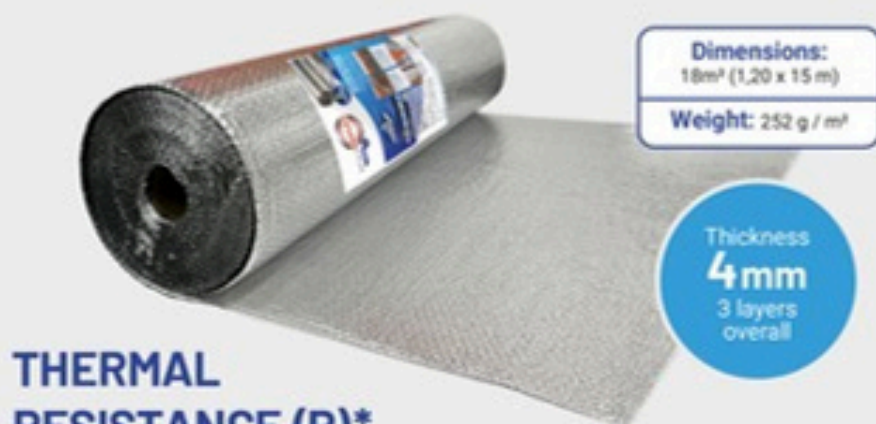
Suitable for roofs (**installation under roof tiles or slate**), ceilings and roofs (**horizontal installation under roof slabs**), partition walls (interior walls), and suitable for any construction type, whether new or renovation projects. Recommended for use in air chambers in both interior and exterior applications.

Building construction, Steel-Frame systems, timber structures, industrial or construction modules.



SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Thermobonded product along its entire length to ensure airtightness in air chambers and prevent dust, dirt, moisture, and the proliferation of viruses, bacteria, or fungi.
- Pure aluminum protected against oxidation to ensure a long service life while maintaining low-emissivity continuity.
- Easy and quick to install and use.



Dimensions:
18m² (1,20 x 15 m)

Weight: 252 g / m²

Thickness
4 mm
3 layers overall

THERMAL RESISTANCE (R)*

Roofs
R = 2,39 m².K/W
2 air chambers of 4 cm

Walls and façades
R = 1,43 m².K/W
2 air chambers of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.05/0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 95% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0,11 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in roofing: 2,39 (with two 4 cm air cavities) (UNE-EN ISO 6946:2021)
Thermal resistance in false ceilings: 1,25 (with one 4 cm air cavity) (UNE-EN ISO 6946:2021)
Thermal resistance in walls: 1,43 (with two 2 cm air cavities) (UNE-EN ISO 6946:2021)
Aluminum purity: 99%
Includes a radon barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (exposed)
Estimated service life: 25 years



It is important to always install the product within air cavities to ensure its performance characteristics. It is recommended to seal joints and connections using metallized polyester sealing tape (Polyfix). We assume no responsibility if expected results are not achieved due to incorrect or unsuitable installation.

4 mm

(+ air chambers)

54 mm

50 mm

51 mm

57 mm

POLYREFLEX SUPER

Expanded Polystyrene (EPS)

Extruded Polystyrene (XPS)

Mineral Wool

Glass Fiber





Dimensions:
18m² (1,20 x 15 m)

Weight: 255 g / m²

Thickness
8 mm
3 layers overall

THERMAL RESISTANCE (R)*

Roofs
R = 2,5 m².K/W
2 air chambers of 4 cm

Walls and façades
R = 1,54 m².K/W
2 air chambers of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.05/0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 95% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0,22 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Thermal resistance in roofs: 2,5 (with two 4 cm air chambers) (UNE-EN ISO 6946:2021)
Thermal resistance in floors: 1,36 (with one 4 cm air chamber) (UNE-EN ISO 6946:2021)
Thermal resistance in walls: 1,54 (with two 2 cm air chambers) (UNE-EN ISO 6946:2021)
Aluminum purity: 99%
Includes a vapor barrier
Resistant to water vapor diffusion: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (exposed)
Estimated service life: 25 years



Important: The product must always be installed within airtight air chambers to ensure the characteristics of the material are not affected. We are not responsible if the expected results are not achieved due to poor or improper installation.

COMPOSITION

Multilayer reflective thermal insulation composed of two outer layers of lacquered pure aluminum and a large internal polyethylene bubble layer.

Thermally welded across its entire surface, ensuring a continuous bond between its layers.

APPLICATION

Walls and façades (vertical installation on the interior or exterior).
Roofs and roofing systems (horizontal and/or inclined installation on the interior or exterior).

Partition walls shared with neighboring properties.
Suitable for any type of construction, whether new builds or renovations, creating airtight air chambers on both sides of the insulation.

Traditional construction, Steel Frame systems, wooden houses, modular or industrialized construction.



SOME OF THE ADVANTAGES

- Interrupts heat transfer through radiation and conduction.
- Longitudinally welded product to ensure airtight internal air chambers and prevent dust, moisture, fibers, insects, fungi, bacteria, and mold growth from entering.
- Interior aluminum protected to maintain low emissivity throughout its service life and ensure insulation continuity.
- Easy and quick to install and use

8 mm

(+ air chambers)

59 mm

54 mm

55 mm

62 mm

POLYREFLEX BIG

Expanded
Polystyrene
(EPS)

Extruded
Polystyrene
(XPS)

Mineral
Wool

Glass Fiber





Dimensions:
24m² (1,20 x 20 m)

Weight: 350 g / m²

Thickness
16 mm
7 layers
overall

THERMAL RESISTANCE (R)*

Roofs
R = 2,71 m².K/W
2 air chambers of 4 cm

Walls and façades
R = 1,75 m².K/W
2 air chambers of 2 cm

Also applicable for
ceilings and roofs



TECHNICAL DATA

Emissivity: 0.05/0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Reflectivity: 95% (UNE-EN ISO 22097:2023)

Thermal resistance of core: 0.43 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Thermal resistance for roofs: 2,71 (with one 4 cm air chamber) (UNE-EN ISO 6946:2021)

Thermal resistance for false ceilings: 1,57 (with one 4 cm air chamber) (UNE-EN ISO 6946:2021)

Thermal resistance for walls: 1,75 (with two 2 cm air chambers) (UNE-EN ISO 6946:2021)

Aluminum purity: 99%

Radiant barrier

Water vapor diffusion resistance (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)

Fire classification: Class B-s1,d0 (within a system) / Euroclass F (exposed) according to EN 13501-1:2002

Estimated service life: 25 years



It is important that the product is always installed with air chambers to ensure the stated performance characteristics. Installation must follow the Polyreflex technical data sheet. We are not responsible for results that do not meet expectations due to incorrect or inadequate installation.

COMPOSITION

Reflective thermal insulation, composed of two layers of pure lacquered aluminum, two internal layers of large polyethylene air bubbles (8 mm), and an aluminum reflective film between the bubbles.

Longitudinally heat-sealed, without seams or intermediate welds.

APPLICATION

Walls and façades (**vertical installation, interior or exterior**).

Roofs and coverings (**horizontal or inclined installation, interior or exterior**). Partitions with neighboring walls (party walls). Suitable for any type of construction, whether new or renovation projects. Use air chambers on both sides of the insulation material to achieve better performance.

Suitable for traditional construction, steel-frame systems, wooden houses, modular construction, or industrialized building systems.



SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Product welded longitudinally to ensure airtight air chambers and prevent dust, dirt, and moisture from entering the air bubbles, helping to prevent the growth of viruses, bacteria, or fungi.
- Protected exterior aluminum guarantees low emissivity throughout its service life, ensuring consistent insulation performance.
- Easy and quick to install and use.



16 mm

(+ air chambers)

67 mm

61 mm

63 mm

70 mm

POLYREFLEX ULTRA

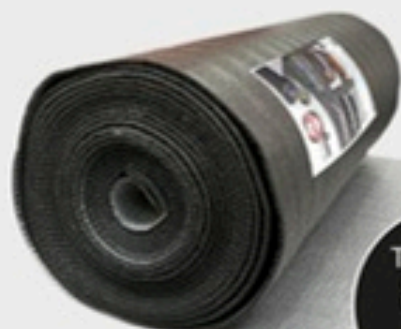
Expanded
Polystyrene
(EPS)

Extruded
Polystyrene
(XPS)

Mineral
Wool

Glass Fiber





Dimensions:
18/36m² (1,20 m x 15/30 m)

Weight: 200 g / m²

Thickness
8 mm
3 layers
overall

THERMAL RESISTANCE (R)*

Of the core:
0.22 m²·K/W (ETA/ETE)

For floors:
1.38 m²·K/W (*)



TECHNICAL DATA

Emissivity: 0.12 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 0.88 (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.22 m²·K/W (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Compression resistance: 13.2 kPa (UNE-EN 826:2013)
Estimated thermal resistance in slabs: 1.38 m²·K/W (*)
Impact sound insulation in slabs ΔL_w : 28 dB (UNE-EN ISO 10140-3:2022 y UNE-EN ISO 10140-1:2022).
Includes a radon gas barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (exposed)
Estimated service life: 25 years



(*) Value obtained through theoretical estimation of thermal surface resistances in the underfloor heating layer based on the results according to UNE-EN ISO 6946:2021. We disclaim responsibility if the expected results are not achieved due to improper or incorrect installation.

COMPOSITION

Multifunction membrane that provides thermal, acoustic and radon insulation for floors. It acts as a barrier against radon gas in floors. It consists of a layer of polyethylene bubbles (3 mm), thermobonded to an internal PET sheet with low-emissivity aluminum coating and an external layer of anthracite polyethylene foam (5 mm).

APPLICATION

- Insulation in slabs.
- Insulation under radiant floors.
- Acoustic barrier in floating floor systems.
- Protection against moisture and radon (in compatible systems).

SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Thermobonded product over the entire surface and with an internal aluminum film to ensure airtightness and prevent dust, dirt, and moisture from entering the system.
- Internal protected aluminum layer, maintaining its low-emissivity properties and acting against radiation transfer.
- Easy to install and use.
- Does not absorb water and does not degrade.
- Safe material; non-toxic and non-irritating.

ESTIMATED THEORETICAL THERMAL RESISTANCE WHEN COMBINED WITH OTHER FLOOR INSULATION MATERIALS

BLH F + EPS 40 mm:
2,43 m²·K/W

BLH F + Mineral Wool 40 mm:
2,49 m²·K/W

BLH F + XPS 100 mm:
4,24 m²·K/W



Thickness
8 mm
3 layers
overall

Dimensions:
36m² (1,20 m x 30 m)
Weight: 400 g / m²

THERMAL RESISTANCE (R)*

Of the core:
0.20 m²·K/W (ETA/ETE 13-0525)

For floors:
1.51 m²·K/W(*)



TECHNICAL DATA

Emissivity: 0.12 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 0.88 (UNE-EN ISO 22097:2023)
Core Thermal Resistance: 0.20 m²·K/W (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Floor thermal resistance: 1.51 m²·K/W (*)
Waterproof and water vapor barrier
Resistance to water vapor diffusion: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (Exposed)
Estimated service life: 25 years

(*) Value obtained through theoretical estimation of thermal surface resistances in the underfloor heating layer based on the results according to UNE EN ISO 6946:2021. We disclaim responsibility if the expected results are not achieved due to improper or incorrect installation.

COMPOSITION

Multifunctional membrane that provides reflective thermal insulation, acoustic attenuation, and a barrier against radon gas for pavements. It is made of two layers of lacquered pure aluminum (4 mm), heat-sealed to an internal layer of low-emissivity aluminized PET/aluminum film.

APPLICATION

- Insulation under radiant floors.
- Thermal insulation beneath compression layers and flat roofs.
- Acoustic barrier auxiliary layer and impact protection on floors.
- Additional protection against moisture and radon (in compatible systems).

SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Thermally welded product across its entire surface and with interior aluminum to ensure airtightness and prevent dust, dirt, and moisture from entering the material's internal air chambers.
- Protected interior aluminized layer, maintaining its low-emissivity properties and acting against thermal transmission by radiation.
- Easy and quick to install and use.
- Does not absorb water or degrade.
- Safe material, non-toxic and non-irritating.

ESTIMATED THEORETICAL THERMAL RESISTANCE WHEN COMBINED WITH OTHER FLOOR INSULATION MATERIALS

BLH F + EPS 40 mm:
2,56 m²·K/W

BLH F + Mineral Wool 40 mm:
2,62 m²·K/W

BLH F + XPS 100 mm:
4,37 m²·K/W





Dimensions:
24m² (1,20 m x 20 m)

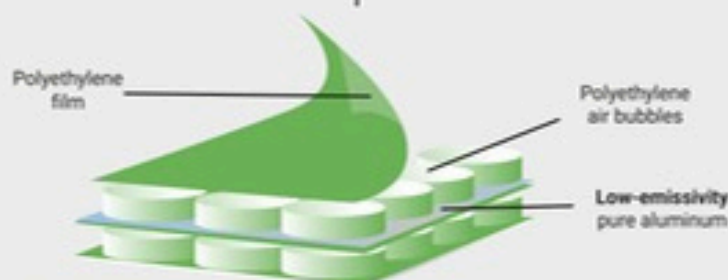
Weight: 1200 g / m²

Thickness
16/18 mm
3 layers
overall

THERMAL RESISTANCE (R)*

Of the core:
0.40 m²·K/W (ETA/ETE 13-0525)

For floors:
1.92 m²·K/W (*)



TECHNICAL DATA

Emissivity: 0.12 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 0.88 (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.40 m²·K/W (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Estimated thermal resistance in floors: 1.92 m²·K/W (*)
Provides a radon gas barrier
Resistant to water vapor diffusion : (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (exposed)
Estimated service life: 25 years



(*) Value obtained through theoretical estimation of thermal surface resistances in the underfloor heating layer based on the results according to UNE EN ISO 6946:2021. We disclaim responsibility if the expected results are not achieved due to improper or incorrect installation.

COMPOSITION

Multifunctional membrane that provides reflective thermal insulation, acoustic attenuation, and a vapor barrier with radon gas barrier properties. It is composed of two outer layers of large polyethylene bubbles (8 mm), thermally welded across their entire surface, and an internal layer of low-emissivity aluminized PET/aluminum.

APPLICATION

- Insulation under radiant floors.
- Thermal insulation beneath compression layers and flat roofs.
- Acoustic barrier auxiliary layer and impact protection on floors.
- Additional protection against moisture and radon (in compatible systems).

SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Thermally welded product across its entire surface and with interior aluminum to ensure airtightness and prevent dust, dirt, and moisture from entering the material's internal air chambers.
- Protected interior aluminized layer, maintaining its low-emissivity properties and acting against thermal transmission by radiation.
- Easy and quick to install and use.
- Does not absorb water or degrade.
- Safe material, non-toxic and non-irritating.

ESTIMATED THEORETICAL THERMAL RESISTANCE WHEN COMBINED WITH OTHER FLOOR INSULATION MATERIALS

BLH F + EPS 40 mm:
2,97 m²·K/W

BLH F + Mineral Wool 40 mm:
3,03 m²·K/W

BLH F + XPS 100 mm:
4,78 m²·K/W





Dimensiones:
2.00 m x 0.60 m

Peso: 290 g / m²

3
CAPAS

DATOS TÉCNICOS

Emisividad: 0.05/0.05 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Reflectividad: 95% (UNE-EN ISO 22097:2023)

Resistencia térmica del Núcleo: 0.11 (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Pureza del aluminio: 99% (ETA/ETE 13-0525) (UNE-EN 16863:2024)

Peso de la malla de vidrio: 90 g/m²

Grosor medio de la malla de vidrio: 0.48 mm

Luz de malla de fibra de vidrio: 10 x 10 mm

Resistencia a la tensión en trama de la malla: ≥ 1500 N/5 cm

Revestimiento de la malla: SBS y de color azul

Cuenta con barrera contra el gas radón

Resistente a difusión del vapor de agua (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)

Clasificación al fuego: Clase B-s1, d0 (dentro de un sistema) / Euroclase F (EN 13501-1:2002) (Expuesto)

Vida útil Estimada de 25 años



La instalación debe realizarse con la lámina de aluminio orientada hacia el exterior del sistema y la malla de fibra de vidrio en contacto con el forjado o la estructura sobre la que se fijará el producto. Eliminamos la responsabilidad en caso que los resultados no sean los esperados como consecuencia de una mala o inadecuada instalación.

COMPOSICIÓN

Aislamiento térmico reflexivo, compuesto por una capa externa de aluminio puro lacado, termosellado a una capa interna de burbujas de polietileno (3 - 4 mm), y adherido a una malla externa de fibra de vidrio color azul.

APLICACIÓN

- Cantos de forjado.
- Pilares y elementos estructurales.
- Zonas perimetrales de alta transmitancia.
- Transiciones hormigón-fachada.
- Partes estructurales susceptibles a condensaciones.

ALGUNAS DE LAS VENTAJAS

- Corta los flujos de calor por radiación y por conducción.
- Evita las pérdidas de calor en los puentes térmicos presentes en forjados, columnas y fachadas.
- Producto soldado longitudinalmente para asegurar la estanqueidad térmica del sistema constructivo; evitando la entrada de polvo, suciedad, y humedad dentro del edificio e impidiendo así la proliferación de virus, bacterias u hongos.
- Previene la formación de grietas y fisuras en el revoque gracias a su malla de fibra de vidrio.
- No se degrada ni absorbe agua, ideal para encuentros expuestos a humedad ambiental.
- Material seguro, no es tóxico ni irritante.

MEDIDAS DE LAS TIRAS

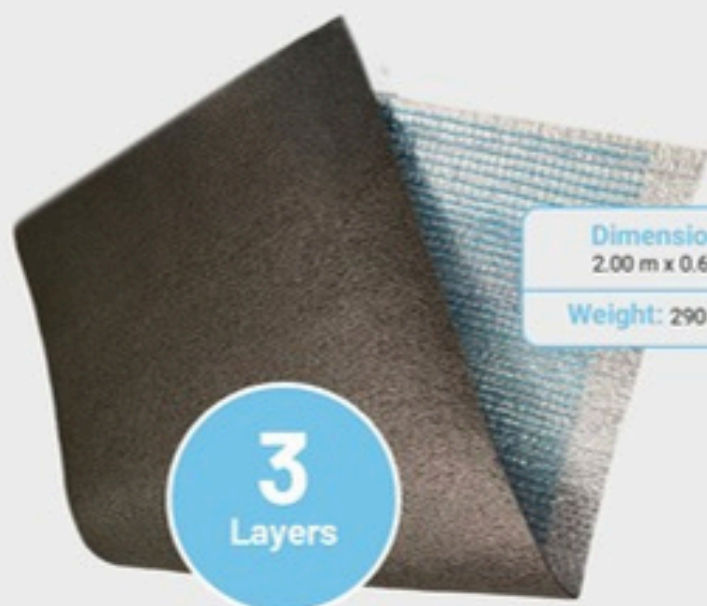
Ancho:
0.60 m

Largo:
2.00 m

Espesor:
4,5 mm

Peso:
290 g/m²





Dimensions:
2.00 m x 0.60 m

Weight: 290 g / m²

3
Layers

TECHNICAL DATA

Emissivity: 0.12/0.12 (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Reflectivity: 88% (UNE-EN ISO 22097:2023)
Core thermal resistance: 0.22 m² K/W (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Aluminum purity: 99% (ETA/ETE 13-0525) (UNE-EN 16863:2024)
Fiberglass mesh weight: 90 g/m²
Average fiberglass mesh thickness: 0.48 mm
Fiberglass mesh opening (mesh size): 10 x 10 mm
Tensile strength of fiberglass mesh weave: ≥ 1500 N/5 cm
Mesh coating: SBS e de cor azul
Includes a radon gas barrier
Water vapor diffusion resistance: (ETA/ETE 13-0525) (UNE-EN ISO 22097:2023)
Fire classification: Class B-s1, d0 (within a system) / Euroclass F (EN 13501-1:2002) (Exposed)
Estimated service life: 25 years



Installation must be carried out with the aluminum layer facing outward from the system and the fiberglass mesh facing the side where the product will be fixed. We decline any responsibility if expected results are not achieved due to incorrect or unsuitable installation.

COMPOSITION

Reflective thermal insulation composed of an external layer of polyethylene bubbles (3 mm), thermobonded to an internal low-emissivity aluminized PET sheet / aluminum, and an external layer of anthracite polyethylene foam (5 mm), bonded to an outer blue fiberglass mesh.

APPLICATION

- Slab edges.
- Pillars and structural elements.
- High-transmittance perimeter areas.
- Concrete-to-façade transitions (or concrete-façade connections).
- Structural parts susceptible to condensation.

SOME OF THE ADVANTAGES

- Reduces heat transfer through radiation and conduction.
- Prevents heat loss at thermal bridges found in slabs, columns, and façades.
- Longitudinally bonded product to ensure thermal airtightness of the construction system and prevent the entry of dust, dirt, and moisture into the building, while preventing the proliferation of viruses, bacteria, or fungi.
- Prevents the formation of cracks and fissures in plaster thanks to its fiberglass mesh.
- Does not degrade or absorb water; ideal for areas exposed to environmental humidity.
- Safe material; non-toxic and non-irritating.

STRIP DIMENSIONS

Width:
0.60 m

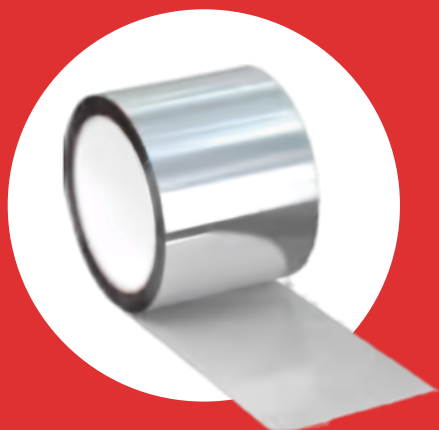
Length:
2.00 m

Thickness:
4,5 mm

Weight:
290 g/m²



Alu-Fix



Aluminium tape

For joining and overlapping seams of PolyREFLEX insulating sheets.
Superior-adhesion acrylic adhesive with siliconised paper liner.

Poly-Fix

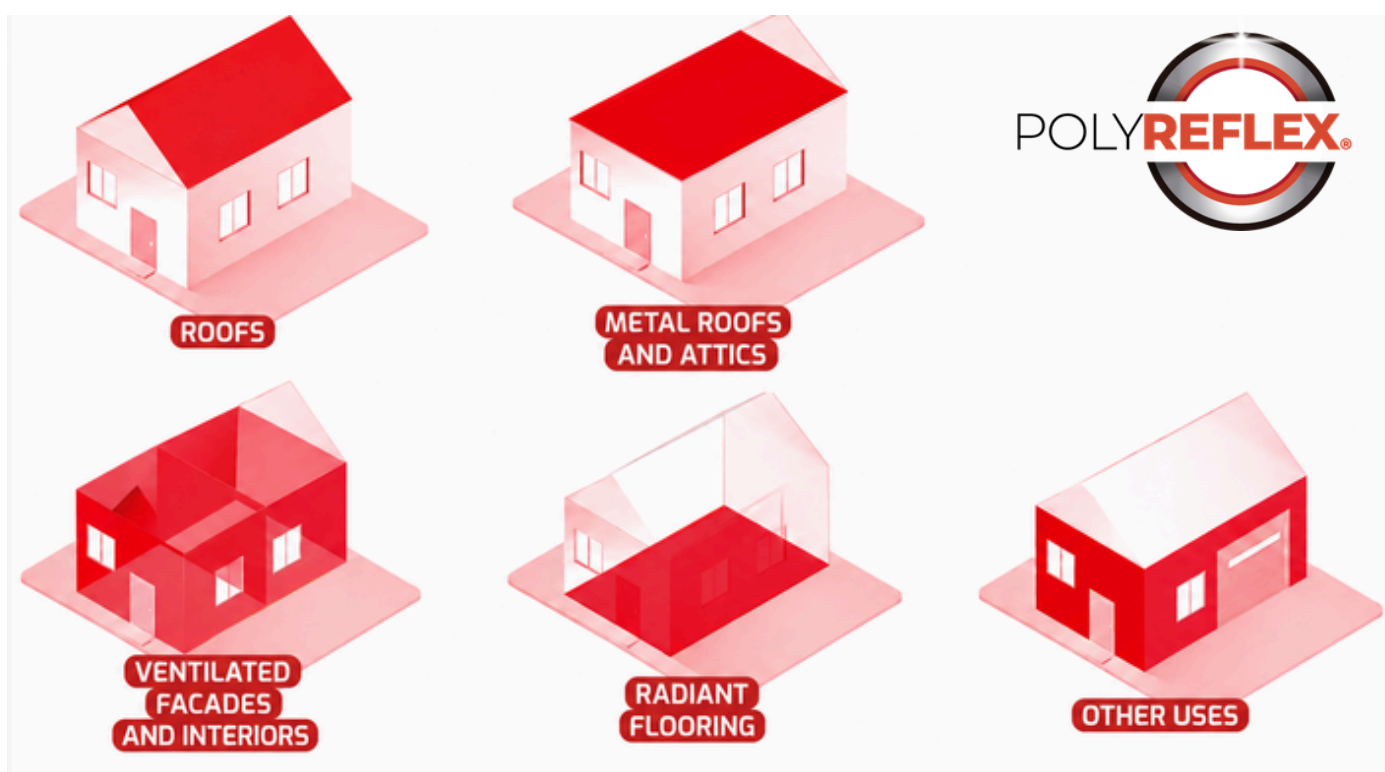


Aluminised polypropylene tape

For joining and overlapping seams of PolyREFLEX insulating sheets.
Superior-adhesion acrylic adhesive:

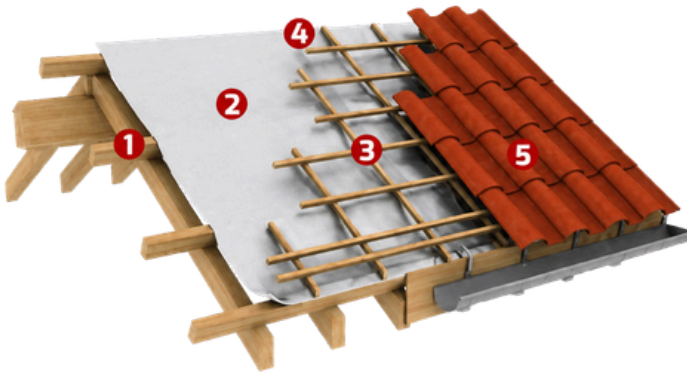
Where can it be installed

PolyReflex reflective insulation



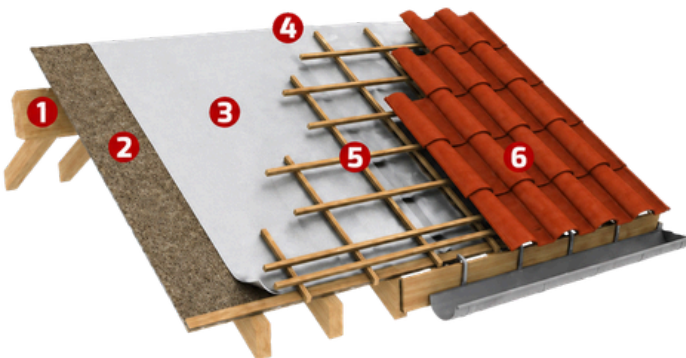


THERMAL INSULATION BETWEEN BATTENS UNDER TILE



1. Timber structure
2. PolyREFLEX Multilayer fixed
3. Timber battening
4. PolyFIX sealing tape on joints and edges
5. Ceramic tile

THERMAL INSULATION OVER TIMBER BOARD UNDER TILE



1. Timber structure
2. Water-repellent timber board
3. PolyREFLEX Multilayer fixed and taped
4. PolyFIX sealing tape on joints and edges
5. Timber battening
6. Ceramic tile



**ETA/ETE
13-525**





THERMAL INSULATION UNDER METAL ROOF



1. **Profiled sheet-metal covering**
2. **Rolled-steel metal structure**
3. **Galvanised-steel metal framing**
4. **PolyREFLEX Multilayer fixed**
5. **PolyFIX sealing tape on joints and edges**

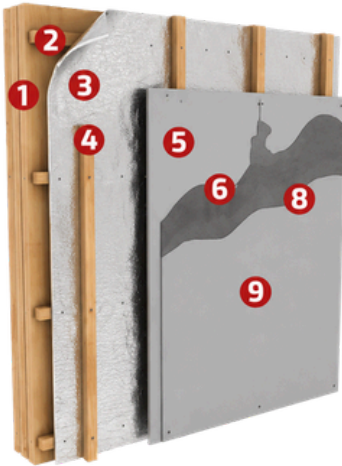
THERMAL INSULATION IN DRY LINING AND UNDER EXISTING ROOF IN ATTICS AND LOFTS



1. **Attic timber structure with or without insulation**
2. **PolyREFLEX Multilayer fixed**
3. **Galvanised-steel metal framing**
4. **Finished plasterboard**



EXTERIOR THERMAL INSULATION WITH VENTILATED CAVITY



1. Self-supporting laminated-timber façade support
2. Fixed horizontal timber battening
3. PolyREFLEX Multilayer fixed
4. Fixed vertical timber battening
5. Fixed cement board
6. 1st mortar coat
7. Glass-fibre mesh
8. 2nd mortar coat
9. Acrylic paint

THERMAL INSULATION IN INTERIOR FAÇADE DRY LINING



1. Existing masonry façade support
2. Fixed horizontal timber battening
3. PolyREFLEX Multilayer fixed
4. Levelled galvanised-steel
5. metal framing
6. Finished plasterboard

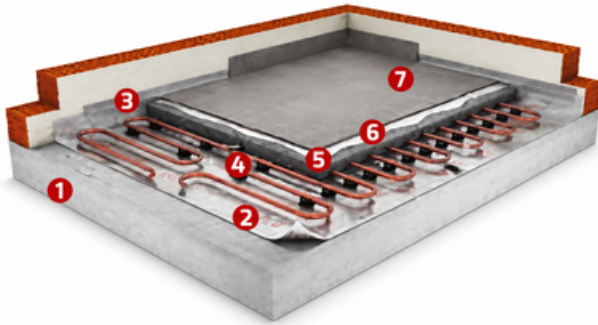


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HEAT-LOSS LIMITER IN RADIANT FLOORS



1. Existing slab support
2. PolyREFLEX Multilayer
3. PolyFIX sealing tape on joints and edges
4. Radiant-floor installation
5. Cement-mortar screed
6. Adhesive cement
7. Porcelain stoneware tile

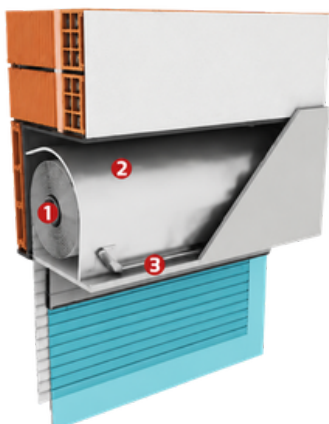
OTHER USES

THERMAL INSULATION OF GARAGE DOOR FROM THE INSIDE



1. Existing garage-door structure and finish
2. PolyREFLEX Multilayer
3. PolyFIX sealing tape on joints and edges

THERMAL INSULATION OF ROLLER-SHUTTER BOX FROM INSIDE THE HOME



1. Roller-shutter box
2. PolyREFLEX Multilayer
3. PolyFIX sealing tape on joints and edges

How to use

TOOLS



SELLAR



MEDIR



CORTAR



GRAPAR



**ETA/ETE
13-525**



How to use

TOOLS

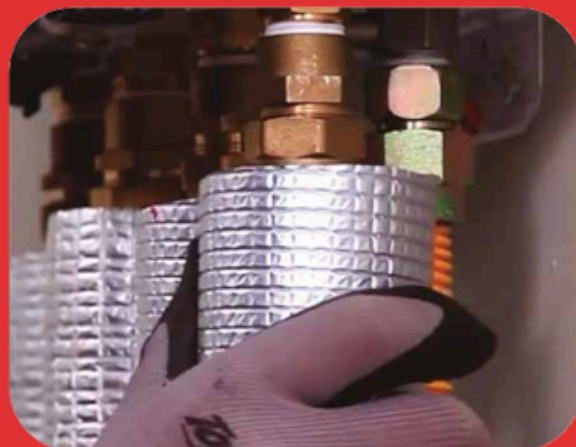


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How to use

TOOLS



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