New times,
new solutions

POLYREFLEX®

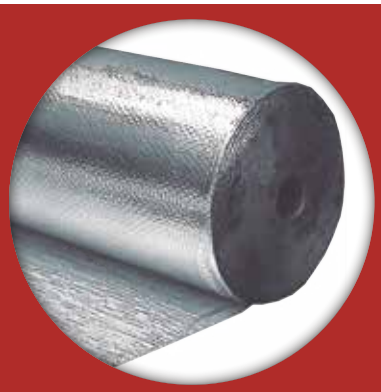
REFLECTIVE
THERMAL INSULATION

Optimer System
www.optimersystem.com

POLYREFLEX®

TYPES OF INSULATION

Bubble



POLYESTER FIBERS

BENEFITS

- Energy saving
- Increased usable living space
- Thermal comfort
- Quick and easy installation
- Durable insulation
- Environmentally friendly

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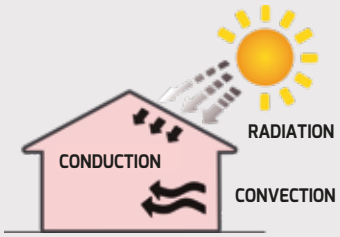
HOW IS HEAT TRANSMITTED?

Radiation occurs when two bodies are 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 is caused by the movement of a fluid (air) at a different temperature from a body in contact with it (or other air at a different temperature).

Conduction occurs in solid bodies when there is a temperature difference between two parts of a body or between two bodies in contact.



What is PolyREFLEX®?

is an efficient thermal insulation material in thicknesses between 4 and 50 mm, composed of polyethylene bubbles or polyester fibers laminated with pure aluminum.

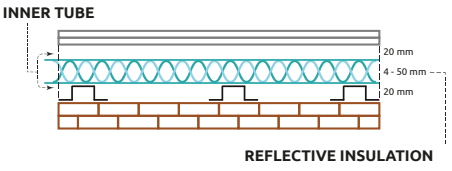
A cosa serve?

It effectively prevents heat ingress in summer and heat loss in winter, resulting in significant energy savings. It also avoids indoor humidity due to condensation.

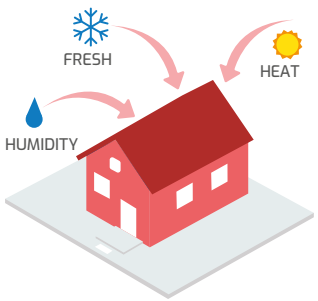
THERMAL RESISTANCE, HOW IS IT CALCULATED?

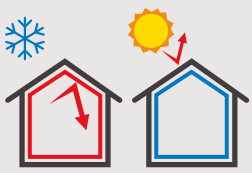
Thermal resistance is the ability of a material or system to insulate. The higher the R, the more effective the insulation.

in accordance with the product standard **UNE EN 16863:2024 and UNE-EN 16012,** with two air-tight chambers. Therefore, for these insulators to be highly functional, it is essential to apply them between 2 air chambers at least 2 cm thick each.



PolyREFLEX insulates against cold, heat and moisture.





As a result, a stable and comfortable temperature is achieved inside the building in both winter and summer.

In winter, heat is retained and heating energy is saved. In summer, overheating is limited by radiation reflection.

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PRODUCTS AND APPLICATIONS

POLYREFLEX - POLYESTER FIBERS

Applications	MULTI 7-7	MULTI 5-20	MULTI 7-33	MULTI 9-50
Walls	✓	✓	✓	✓
Ceilings	✓	✓	✓	✓
Facades	✓	✓	✓	✓
Covers	✓	✓	✓	✓
Other uses	✓	✓	✓	✓

TECHNICAL SPECIFICATIONS

	7 LAYERS	5 LAYERS	7 LAYERS	9 LAYERS
Composition	**Reflective thermoacoustic insulation,** composed of 2 layers of protected aluminum, 3 inner layers of polyester fibers, and 2 reflective films. Longitudinally welded without seams or intermediate welds.	**Reflective thermoacoustic insulation,** composed of 2 layers of protected aluminum, 2 inner layers of polyester fibers and 1 reflective film. Longitudinally welded without seams or intermediate welds.	**Reflective thermoacoustic insulation,** composed of 2 layers of protected aluminum, 3 inner layers of polyester fibers, and 2 reflective films. Longitudinally welded without seams or intermediate welds.	**Reflective thermoacoustic insulation**, composed of 2 layers of protected aluminum, 4 inner layers of polyester fibers, and 3 reflective films. Longitudinally welded without seams or intermediate welds.
Roofs and terraces:	R = 2,49 m^2.K/W	R = 2,88 m^2.K/W	R = 3,30 m^2.K/W	R = 3,86 m^2.K/W
Walls and facades:	R = 1,55 m^2.K/W	R = 1,94 m^2.K/W	R = 2,36 m^2.K/W	R = 2,92 m^2.K/W
Thickness	7 mm	20 mm	33 mm	50 mm
Grammage	244 gr/m^2	320 gr/m^2	395 gr/m^2	480 gr/m^2
Long	20 m	12 / 20 m	12 m	12 m
Width	1,25 m	1,25 m	1,25 m	1,25 m
Area	25 m^2	15 / 25 m^2	15 m^2	15 m^2
Format	BOBINA	BOBINA	BOBINA	BOBINA

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PRODUCTS AND APPLICATIONS

POLYREFLEX - BUBBLES

Applications	UNO	SUPER	BIG	ULTRA
Walls	✓	✓	✓	✓
Ceilings	✓	✓	✓	✓
Facades	✓	✓	✓	✓
Covers	✓	✓	✓	✓
Other uses	✓	✓	✓	✓

TECHNICAL SPECIFICATIONS

	2 LAYERS	3 LAYERS	3 LAYERS	7 LAYERS
Composition	**Multi-layer reflective insulation,** composed of an outer layer of 100% pure lacquered aluminum and a layer of polyethylene air bubbles.	**Multi-layer reflective insulation,** consisting of 2 outer sheets of pure aluminum lacquered and protected (100%) and 1 middle layer of bubble polyethylene.	**Multi-layer reflective insulation** composed of 2 outer sheets of 100% pure aluminum lacquered and protected and a middle layer of large polyethylene air bubbles.	Multi-layer reflective insulation, consisting of 2 outer sheets of 100% pure aluminum, lacquered and protected, double inner layer of large polyethylene bubbles, with 2 inner sheets of 100% pure aluminum reflexible on the bubble faces.
Roofs and terraces:	R = 0,77 m².K/W	R = 2,37 m².K/W	R = 2,46 m².K/W	R = 2,69 m².K/W
Walls and facades:	R = 0,77 m².K/W	R = 1,43 m².K/W	R = 1,52 m².K/W	R = 1,75 m².K/W
Thickness	4 mm	4 mm	8 mm	16 mm
Grammage	232 gr/m²	252 gr/m²	256 gr/m²	350 gr/m²
Long	15 / 40 m	15 / 40 m	15 / 30 m	20 m
Width	1,20 m	1,20 m	1,20 m	1,20 m
Area	18 / 48 m²	18 / 48 m²	18 / 36 m²	24 m²
Format	BOBINA	BOBINA	BOBINA	BOBINA

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PRODUCTS AND APPLICATIONS

POLYREFLEX - BUBBLES

Applications	BLH F	BLH B	BLH-B BIG	RPT	RPT PLUS F
Flooring / Underfloor Heating	✓	✓	✓		
Forged edges				✓	✓

TECHNICAL SPECIFICATIONS

	BLH F	BLH B	BLH-B BIG	RPT	RPT PLUS F
Composition	**3 LAYERS** **Multi-layer reflective insulation** composed of an inner layer of metallized and protected low-emissivity polyester, an outer layer of polyethylene air bubbles, and an outer layer of 5 mm anthracite polyethylene foam.	**3 LAYERS** **Multilayer reflective insulation,** composed of 1 inner reflective sheet of 100% pure aluminum lacquered and protected low-emissivity and 2 outer layers of air bubbles made of high grammage polyethylene with high compressive strength.	**3 LAYERS** **Multi-layer reflective insulation,** composed of 2 layers of polyethylene bubbles and 1 middle layer of low-emissivity aluminum foil.	**3 LAYERS** Multi-layer reflective insulation, composed of 1 outer sheet of 100% pure aluminum, lacquered and protected, 1 layer of polyethylene air bubble and a fiberglass mesh.	**4 STRATI** Multilayer reflective insulation, consisting of 1 inner reflective sheet of 100% pure aluminum lacquered and protected low-emissivity and 2 outer layers of air bubbles made of 5 mm anthracite-colored polyethylene and polyethylene foam, sewn to 1 fiberglass mesh.
Roofs and terraces:	R = 1,35 m^2.K/W	R = 1,47 m^2.K/W	R = 1,88 m^2.K/W		
Front edges of forged structures				R = 0,11 m^2.K/W	R = 1,35 m^2.K/W
Thickness	8 mm	8 mm	16 mm	4 mm	8 mm
Grammage	200 gr/m^2	400 gr/m^2	700 gr/m^2	304 gr/m^2	450 gr/m^2
Long	15 / 30 m	30 m	20 m	2 m	2 m
Width	1,20 m	1,20 m	1,20 m	0,60 m	0,60 m
Area	18 / 36 m^2	36 m^2	24 m^2	1,2 m^2	1,2 m^2
Format	BOBINA	BOBINA	BOBINA	STRISCIA	STRISCIA

Poly-Fix

Aluminized polypropylene tape

For bonding and overlapping joints of insulation sheets
PolyREFLEX Superior acrylic adhesive bonding compound.

Alu-Fix

Aluminum tape

For bonding and overlapping joints of PolyREFLEX insulation sheets
Superior bonding acrylic adhesive with silicon paper backing.

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WHERE IT CAN BE INSTALLED
POLYREFLEX REFLECTIVE INSULATION?

PITCHED ROOFS

ROOFING AND METAL SPACES

POLYREFLEX®

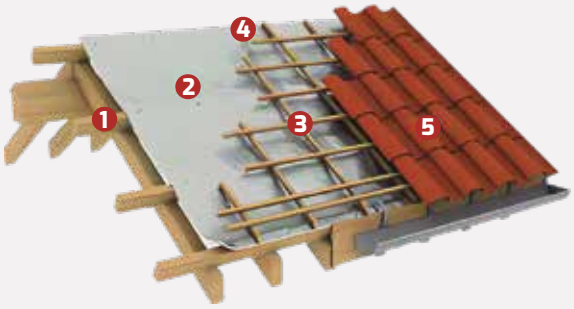
VENTILATED FACADES AND INTERIORS

RADIANT EARTH

OTHER USES

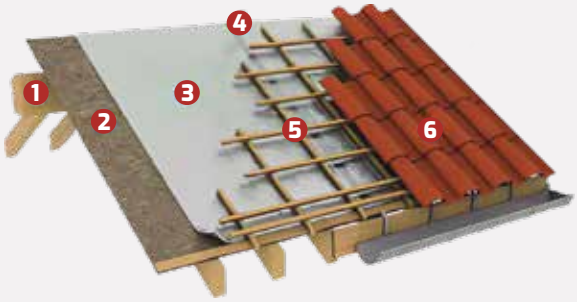
SYSTEMS

SLOPING ROOFS



THERMAL INSULATION BETWEEN BATTENS UNDER ROOF TILES

1. Wood structure
2. PolyREFLEX multilayer fixed
3. Wood joint
4. PolyFIX sealing tape on joints and trim
5. Ceramic tile



THERMAL INSULATION ON WOODEN BOARD UNDER TILE

1. Wood structure
2. Water-repellent wood panel
3. PolyREFLEX Multilayer fixed and taped
4. PolyFIX sealing tape on joints and ends
5. Wood tanning
6. Ceramic tile

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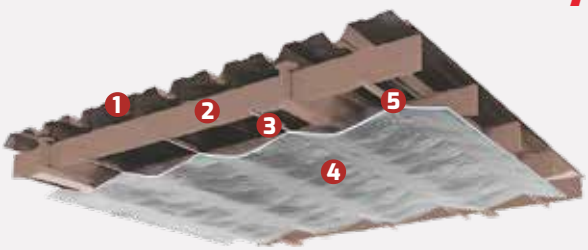
SYSTEMS

METAL ROOFING AND ATTICS



THERMAL INSULATION UNDER THE METAL ROOFING

1. Profiled sheet metal roofing
2. Metal structure made of rolled steel
3. Galvanized steel metal profiles
4. PolyREFLEX multilayer fixed
5. PolyFIX sealing tape on joints and ends

THERMAL INSULATION IN EXISTING LININGS AND SUBFLOORS IN ATTICS AND LOFTS

1. Wooden mezzanine structure with or without insulation
2. PolyREFLEX multilayer fixed
3. Galvanized steel profiles
4. Finished laminated gypsum board

VENTILATED FACADES AND INTERIORS

EXTERNAL THERMAL INSULATION WITH VENTILATED CHAMBER

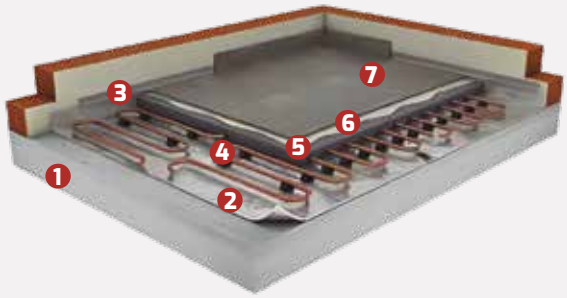
1. Self-supporting glulam facade support
2. Horizontal wooden battens fixed
3. PolyREFLEX multilayer fixed
4. Vertical wood laths fixed
5. Cement board fixed
6. 1st layer of mortar
7. Fiberglass mesh
8. 2nd layer of mortar
9. Acrylic paint

THERMAL INSULATION IN INTERIOR FACADE COATINGS

1. Existing facade support
2. Horizontal wooden laths fixed in place
3. PolyREFLEX multilayer fixed
4. Galvanized steel metal profiles leveled
5. Finished laminated gypsum board

SYSTEMS

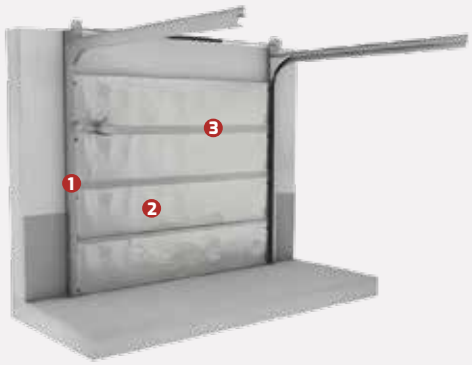
RADIANT EARTH



HEAT LOSS LIMITER IN UNDERFLOOR HEATING SYSTEMS

1. Support for existing slab
2. PolyREFLEX multilayer
3. PolyFIX sealing tape in joints and finishes
4. Installation of underfloor heating
5. Cement mortar screed
6. Cement glue
7. Porcelain tiles

OTHER USES



INTERIOR THERMAL INSULATION OF THE GARAGE DOOR

1. Structure and finish of existing garage door
2. PolyREFLEX multilayer
3. PolyFIX sealing tape on joints and trim

THERMAL INSULATION OF THE SHUTTER BOX INSIDE THE HOUSE

1. Roller shutter box
2. PolyREFLEX multilayer
3. PolyFIX sealing tape on joints and trim

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INSTRUCTIONS FOR USE

INSTRUMENTS


SEAL

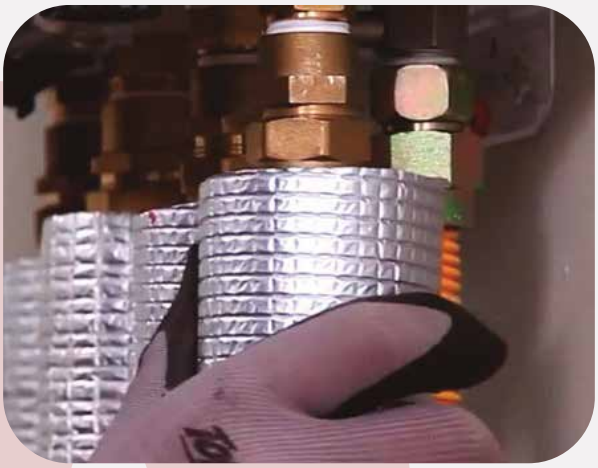

MEASURE


CUT


GRAPAR

INSTRUCTIONS FOR USE

INSTRUCTIONS FOR USE



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