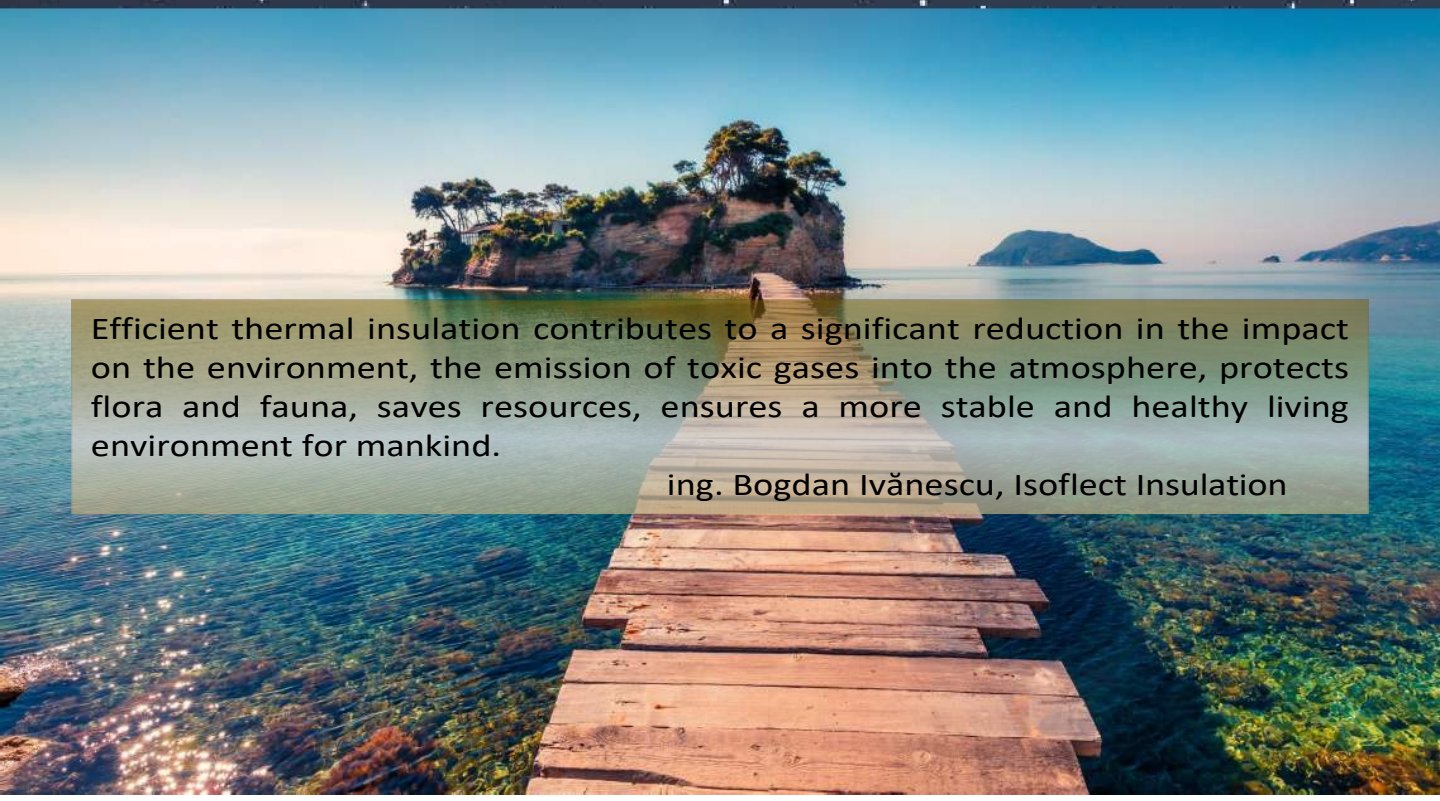
ISOFLECT.

PERFORATING SYSTEMS FOR TERTIARY I ZOLATES

G O L D

ISOFLECT®

SISTEME PERFORMANTE PENTRU IZOLATII TERMICE



Efficient thermal insulation contributes to a significant reduction in the impact on the environment, the emission of toxic gases into the atmosphere, protects flora and fauna, saves resources, ensures a more stable and healthy living environment for mankind.

ing. Bogdan Ivănescu, Isoflect Insulation

Applications:
- bridges
- attic

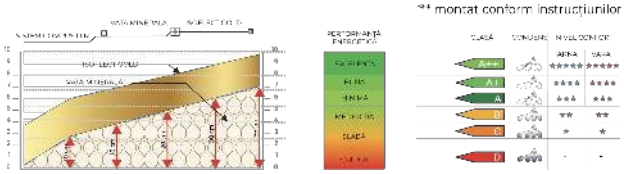
Advantage:
- substantially improves the efficiency of thermal insulation;
- reduces overheating in summer;
- In winter it retains heat inside, reducing heat loss;
- acts as a vapour barrier;
- delay the formation of the dew point by at least 12ºC;
- prevents some of the harmful substances and particles from getting inside.

TABEL DE VALORI ESTIMATIVE

* calculat în sistem termoizolant împreună cu 10 - 35 cm de vată minerală

** conform măsuratorilor Isoflect Insulation. Marja eroare +/- 10%

*** montat conform instrucțiunilor



Composition	Protective layer + Aluminium foil + Air bubble foil + Polyethylene foam 3 mm + Air bubble foil + Aluminium foil + Protective layer
Total thickness	10 mm (+/- 1 mm)
Length of the route (m)	16.6 (+/- 6%)/ 10 (+/- 3%)
Width (m)	1,2 / 1,2
Desitate bubble wrap	110 gr/ m2 x 2
Face 1	Pure aluminium foil
Face 2	Pure aluminium foil
Obligatory orientation face 1/2	nu
Total density	460 gr/m2
Reflectivity	95 - 97%

TECHNICAL SHEET

ISOFLECT®
SISTEME PERFORMANTE PENTRU IZOLATII TERMICE

Name, company name or registered trade mark and contact address as required under Article 11(5). S.C. ISOFLECT INSULATION S.R.L., ALEEA TEXTILISTULUI 23A, SLATINA, JUD. OLT, ROMANIA.

System(s) for the assessment and verification of constancy of performance of the construction product (as laid down in Annex V to the CPR) SYSTEM 3.
In the case of a declaration of performance for a product for buildings covered by a harmonised standard. Performance Constant Assessment and Verification Report no.20/25.09.2017/ "URBAN-INCERC" laboratories in accordance with SR EN 13859-1:2014.

Quality management system certified according to SR- EN ISO 9001/2015 with M-MC series no. 2287/2023.
Environmental management system certified according to SR-EN ISO 14001:2015 with C-MC series no. 2697/2023.
Occupational health and safety management system certified according to SR-EN ISO 45001:2018 series S-MC No. 2605/2023.

Features	**Declared performance levels**	**Harmonised technical specification**
Reaction to fire	F_E	EN 13859-1:2014
Resistance to penetration water - Before ageing artificial - After aging artificial	 W1 W1	EN 13859-1:2014
Longitudinal tensile strength	225N/50 mm	EN 13859-1:2014
Tensile strength in transverse direction	159N/50 mm	EN 13859-1:2014
Elongation in longitudinal direction	78%	EN 13859-1:2014
Elongation in transverse direction	43%	EN 13859-1:2014
Tear resistance - In the direction longitudinal - In the direction transversal	 151N 181N	EN 13859-1:2014
Flexibility at low temperatures (- 40°c)	No cracks on top and bottom of samples	EN 13859-1:2014
Dimensional changes: - direction longitudinal - Transverse direction	 - 0.7 % - 0.2 %	EN 13859-1:2014
Water vapour diffusion - Gravimetric method	0.75 m	EN 13859-1:2014

PERFORMANCE DECLARATION
NO. 54-PEF-2019-08-12

History and technology of thermo-reflective membranes

In 1860, French scientist Jean Claude Eugene Peclet experimented with the insulating effect of high and low emissivity metals against air spaces. Peclet experimented with a wide variety of metals, from tin to cast iron, and concluded that neither colour nor visual reflectivity were important determinants of material performance. Peclet calculated the BTU reduction for high and low emissivity surfaces facing different air spaces, discovering the benefits of a radiant barrier in reducing heat transfer.

In 1925, two German businessmen, Schmidt and Dykerhoff, applied for patents for reflective surfaces for use as building insulation, as recent improvements in technology made low-emissivity aluminium foil commercially viable. This became the launch pad for radiant barrier and reflective insulation worldwide, and over the next 15 years, millions of square feet of radiant barrier were installed in the US alone[2].

In 30 years, the radiant barrier has made a name for itself, being included in projects at MIT, Princeton and Frank Sinatra's residence in Palm Springs, California.

Space exploration
For the Apollo program, NASA helped develop a thin aluminium foil that reflects 95% of radiant heat. A metallised film was used to protect spacecraft, equipment and astronauts from thermal radiation or to retain heat in extreme temperature fluctuations in space. The aluminium was vacuum coated to a thin film and applied to the base of the Apollo landers. It has also been used in numerous other NASA projects, such as the James Webb Space Telescope and Skylab. In the vacuum of outer space, where temperatures can range from -400 to 250 °F (-240 to 120 °C), heat transfer is by radiation alone, so a radiant barrier is more efficient than on Earth, where between 5% and 45% of heat transfer can still occur by convection and conduction, even when an efficient radiant barrier is in place.
The Radiant Barrier is a Space Foundation(TM) certified space technology.
The Radiant Barrier was inducted into the Space Technology Hall of Fame in

1996. Source: Wikipedia

Construction
Isoflect Insulation has developed and adapted specific thermo-reflective materials, optimized and adapted to almost every application in the field of thermal insulation in buildings, so as to contribute significantly to energy s a v i n g s , reduce pollution, reduce the thermal impact on the environment, increase sustainability, increase comfort and climate quality inside buildings.
Isoflect Insulation membranes are used with major impact on efficiency
energy in the following applications:

- Under the cover
- Bridges
- Attics and roofs
- Interior of walls with cladding
- Pardoseli
- Pipes and fittings
- Other technical applications

Applications and installation solutions:

https://isoflect.ro/ Source: Isoflect Insulation

GUARANTEE AND CONDITIONS FOR GRANTING THE GUARANTEE

The guarantee applies to the Isoflect Bronze product, and is valid throughout the EU.

- in the event of a complaint, proof of origin is required (invoice + proof of payment)

The guarantee is not granted if:

- the product is used in conditions of contact and direct action with weathering or chemicals;
- the product has been in contact with a corrosive environment or in contact with substances such as: paint, soil, mortar, wet concrete, copper, ferrous products;
- the products have suffered mechanical or other deformations due to transport, storage, mishandling; cutting operations have
- been carried out with tools or other cutting tools producing excessive local heating;
- the warranty does not cover damage caused by improper assembly;

Extended warranty

The warranty period is extended to 50 years for the following applications:
Attics | Roofing (interior) | Mounting on wooden structure, no contact with the outside environment
Warranty period is extended to 15 years for the next application:
Under the roof. between the two slats.

For any other use, the standard warranty of two years from the date of purchase is offered.

Attention!
Isoflect Insulation membranes are made of pure aluminium foil, which is a good electrical conductor. Take all measures to prevent contact with sources of electric current, as there is a danger of electrocution.

Mounting tools:
Scissors, cutter, stapler (10-12 mm staples), aluminium tape, double-sided tape, installation tape, tape measure, dark marker, level.

To report any problems or ask technical questions, please contact us every working day, between 09.00 - 17.00. Eastern European time.

E-mail: office@isoflect.ro | Tel: +40217807585
www.isoflect.ro
www.isoflect.com
www.isoflectinsulation.eu