SONOTIZ THERMAL

SONOTIZ TERMAL is a new multi-layer reflective thermal insulating material. Flexible, easy to install, multi-layer reflective insulation and vapor barrier layer provide enormous benefits in thermal and vapor projection.

Specially designed to replace traditional insulation, effectively managing all three forms of energy transfer and providing high levels of thermal performance, this universal thermally efficient multi-layer insulation is the ideal solution for all your insulation needs and will save time and money, guaranteeing through the supply of energy savings and the maximum increase of the useful surface.

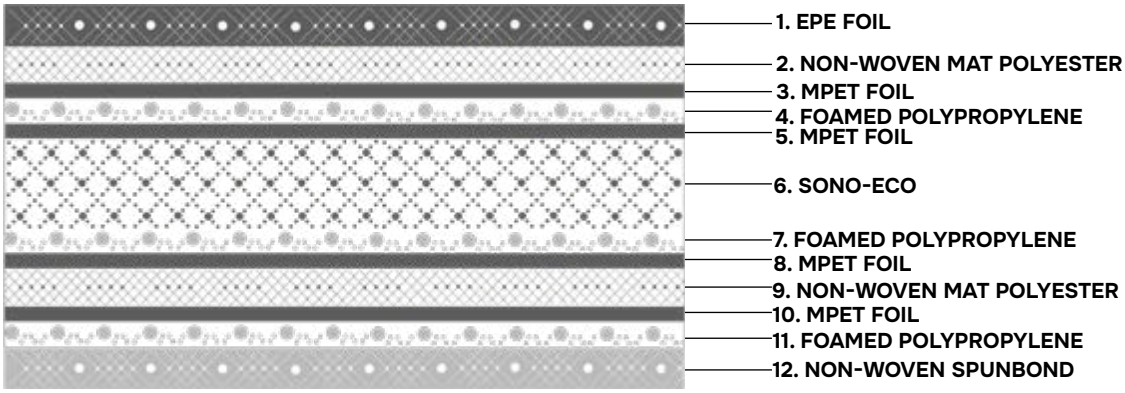
SONOTIZ THERMAL, consisting of 12 high-quality flexible layers and only 30 mm thick, offers high thermal performance, which is achieved through a unique layer configuration and thin profile thickness.

The reflective outer layers of the product improve the overall thermal performance of the product once installed (R-value up to 3.00 m^2K/W), equivalent to 130mm thick mineral fiber insulation.

SONOTIZ THERMAL can be used on roofs, walls, floors, new or existing and many other applications. Once bonded and sealed, SONOTIZ TERMAL acts as a vapor barrier, stopping moisture from entering and reducing the risk of condensation.

When used on roofs, it can be installed both above and below rafters, and between and around purlins. **SONOTIZ TERMAL** is a universal solution that fits easily into wooden frames, cavity walls, plasterboard and exterior walls, as well as suspended and wooden ceilings.

PRODUCT COMPOSITION



DESCRIPTION OF THE MATERIALS THAT MAKE UP THE PRODUCT

1. The polyester fabric keeps its shape well and is slightly subject to deformation, has high wear resistance and is resistant to high temperatures. The material is also resistant to acids, paints, salts, bacteria, mold and harmful insects such as moths. Despite its strength, the material is very light. Polyester is a cheap material, so products made from it are quite affordable.

2. Metallized polyester film foil has the following advantages:

- High chemical resistance;
- High solidity;
- Resistance to high humidity, UV rays;
- High resistance to abrasion and mechanical damage.
- At the same time, the film has one of the highest albedos - up to 95%. In other words, it has the ability to reflect up to 95% of thermal radiation.

3. SONO-ECO is made entirely of fiberglass by mechanical pressing, allowing the fibers to form a cohesive product without the use of glue. The product is heat resistant, durable, flame retardant, non-toxic and does not cause allergic reactions.

12 layers of THERMAL SONOTIZ are composed so that alternating layers of Polyester Material and Metallized Polyester Film Foil create maximum thermal insulation.

Polyester fabric is a poorly conductive thermal material, the film has the ability to reflect up to 95% of thermal radiation, and together they protect against convection.

Thus, the product effectively copes with all forms of energy transfer. (ie conduction, convection and radiation). And at the heart of the product is a 7-millimeter layer of SONO-ECO fiberglass, which makes a significant contribution to thermal insulation.

The thickness of SONOTIZ TERMAL is 30 mm, and at the edges of the mat, where the product is compressed and sealed, it is 20 mm. It is easy to calculate that this difference of 10 mm is evenly distributed between the layers, creating a millimeter air space between them. The thermal conductivity of air is extremely low, so these layers of air also contribute to the thermal insulation properties of the product.

And although sound insulation is not the target function of the product, it should be noted that the SONO-ECO 7 mm fiberglass layer and the multi-layer structure represent a significant obstacle to the spread of sound.

TECHNICAL PARAMETERS

Width	1500 mm
Thickness	30 mm
Thermal resistance up to	3,0 m²K/W
Flammability class	G 1 (low flammability)
Operating temperature range	from -40 °C to +90 °C
Reduces heat loss	to 83 %

METHOD OF APPLICATION

If SONOTIZ THERMAL is used to insulate the roof, it can be attached directly to the rafters. The whole process takes place in several stages, presented below.

1. Measurements are made of the length of the rafters and the distance between them, calculating the required amount of insulation to complete the project.

2. The SONOTIZ THERMAL mat is cut (if necessary, cut) with scissors or a stationery knife, according to the dimensions of the insulated surfaces.

3. In the cut areas, the mats should be sealed with aluminum tape (recommended tape size 48mm*25m).

Tape up to half the width is taped to one side of the mat along the edge of the cut. Then the mat is turned over and the second half of the strip is glued to it, bending it evenly. You need to start from the center of the strip, at small intervals, constantly smoothing from the center to the edges.

4. The prepared mats are attached to the rafters with a stapler, maintaining intervals of at least 300 mm. You have to start from the top of the rafter. The mats are overlapped with a margin of 50-100 mm. The overlapping areas are carefully taped with aluminum tape.

Analyzing the declared parameters of the products, the following conclusions can be drawn:

1. With fewer layers and less thickness, SONOTIZ THERMAL is a better thermal insulator.

2. Compared to the widely used thermal insulation material - glass wool, SONOTIZ THERMAL saves 100 mm of thickness, that is, more than any other multilayer thermal insulation.

3. These advantages are explained by the uniqueness of SONOTIZ THERMAL, whose layer consists of different materials, while other products only repeat the same layer several times.