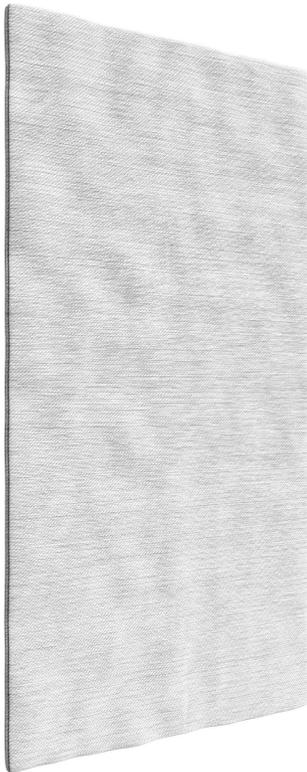


ISOLCORE[®]

The world's thinnest and best performing insulation

CZ Installation manual - Floors

Description



ISOLCORE is the Italian brand that invented the best insulation products in the world. Vacuum panels usually consist of a pressed mineral component which is vacuum-packed by a special casing. The CZ panel is composed of a core mainly made of glass fiber and a special casing made of glass fiber fabric and aluminum, which makes it much more resistant to cut and erosion, compared to all other vacuum panels currently on the market. This special cover makes the panel impermeable to gas and steam and 3 times longer over time than a traditional insulation panel. Panels are deprived of the air inside them to obtain very low pressures: this process greatly reduces the mobility of the few air molecules remaining. In this way, the thermal conductivity decreases reaching values even lower than 0.002 W/mK. Reducing the air inside the panels the result is a reduction in energy transmission by thermal conduction, radiation and convection which is due to the high insulation standard of the product. This process removes the air's thermal conductivity and the warm transfer obtaining a highly insulating product.

Main applications

Cz panel is highly recommended in the construction field to insulate:

- Exterior walls (behind a false wall - total figure of thickness 3-3.5 cm)
- Interior walls (behind a false wall - total figure of thickness 2.5 cm)
- Terraces floors
- Pedestrian rooves
- Ceiling/garage

Besides, CZ panel can be used in many different sectors as the refrigeration ones.

Advantages

The main advantages are the following:

- its high insulating performances (20 times higher than those of traditional insulation products) - its low energy costs
- its low depth
- its thermal performance are 3 times longer over the time than traditional insulation products
- it can be placed also on those buildings that must follow some restrictions related to the landscape they are located in, their history or to the environment laws of their Country

INSTALLATION INSTRUCTIONS

1st method - Under screed (with or without underfloor heating)

Step 1

The horizontal laying on pavements needs to take place on a flat surface free of impurities and it has to be placed on the top of a 300 g/m² non-woven fabric.



Step 2

Particular attention needs to be paid to the joining between each making a light lateral pressure to eliminate gaps or join





Note: It is recommended to tape the joints of the CZ panels and the perimeter of the flooring using an aluminum and bitumen adhesive tape.

During the installation stage, be careful not to step on the panels or there is the risk of damage. For this reason, we recommend leaving a path free of panels to walk safely from one side of the floor or roof to the other. In the final stage put the panels on these empty paths.

In case you need to walk on the panels, it is recommended to use wooden boards to distribute the weight when walking and/or protective fabrics.

Step 3

Cover the panel with an additional layer of non-woven fabric (200/300 g of geotextile) and a layer of nylon



Step 4 : Proceed placing a screed at least 5.5 cm using the appropriate mesh.



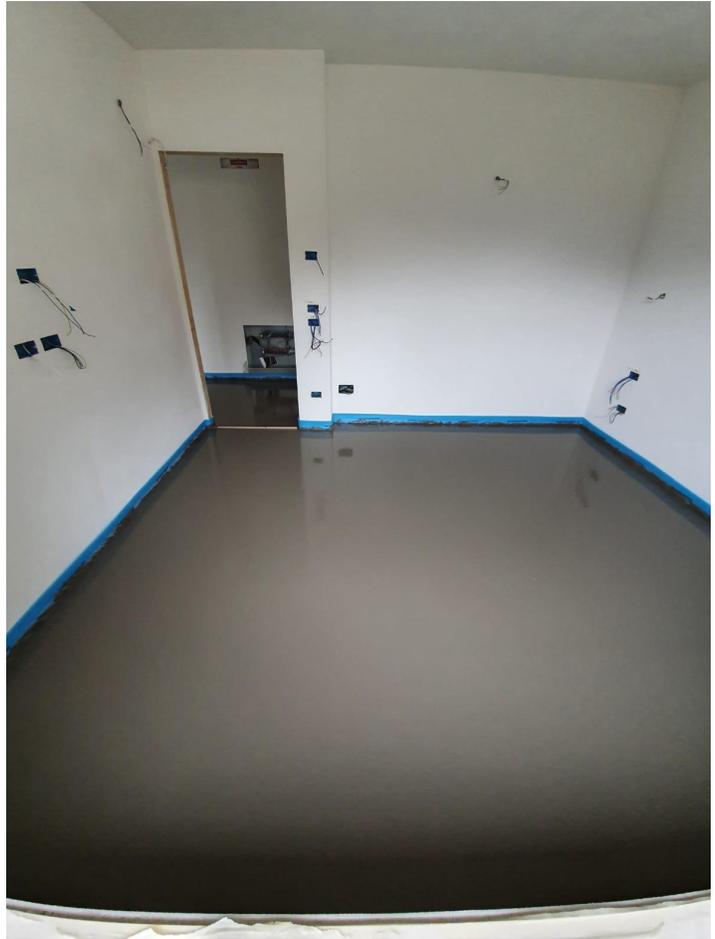
Milled screed



Pipes laid

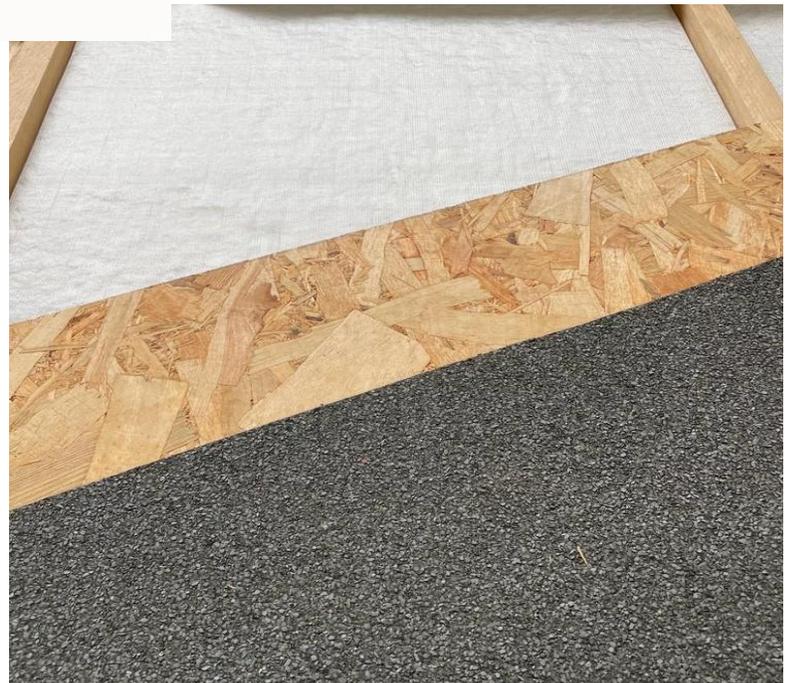
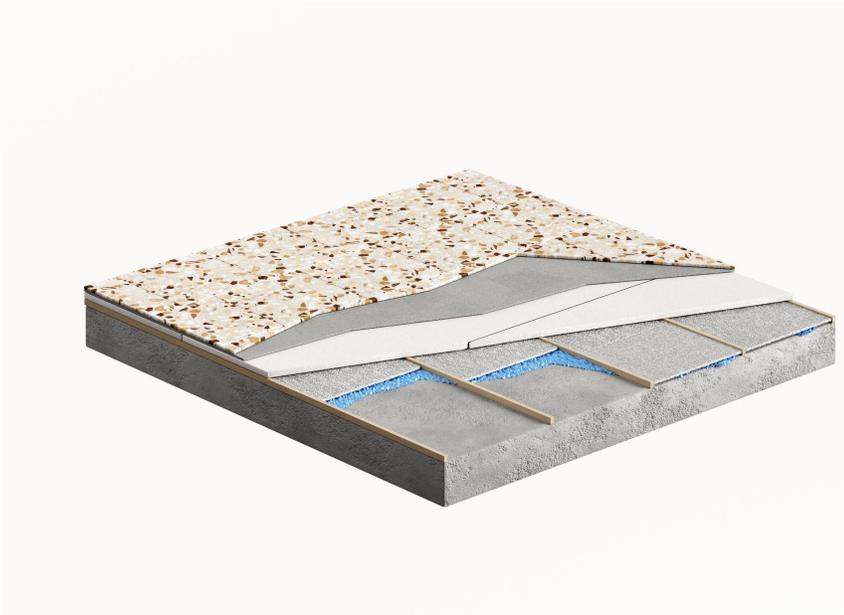
It is now possible to lay any underfloor heating... A radiant floor can be created before laying the screed by milling the existing screed.

ISOLCORE[®] - CZ Vacuum Panel
The world's thinnest and best performing insulation



2nd method - Under wooden board or fibre cement panel

This laying solution is mainly used to insulate the extrados of attic floors or to insulate terrace floors or flat roofs when it is necessary to rise as little as possible with the floor level, for example because you are constrained by the thresholds of French windows.



Restrictions/conditions.

The vacuum panel must be treated with particular care and delicacy. Indeed, it is highly recommended to check the integrity of the Panel before installing it. Damages are recognisable in this respect by noticing the imperfect adhesion of the external cover to the inner core.

For the installation of CZ - ISOLCORE vacuum panels, it is essential to pay attention to the following points:

- 1) Once the vacuum panels are delivered, they shall be visually checked according to the above criteria to verify their integrity;
- 2) The panels cannot be cut or bent: usually panels are rectangular or square shaped but we can customize them in different shapes and/or sizes to suit specific applications.
- 3) It is not recommended to drill the panels
- 4) The surface on which the vacuum panels are to be placed must be smooth, flat and must not display sharp edges or other protuberances.

Our panels also have small dimensions to cover even those areas that are difficult to insulate and where larger formats cannot reach.

We recommend that you provide us with the right number of panels for each format choosing among the standard ones (see data sheet).

Note: if small parts remain uncovered they can be insulated with NANOFELT nanotechnological felt which is 1 cm thick. In this way it is possible to insulate 100% of any thermal bridges. Furthermore, this felt can be easily shaped and cut with a simple cutter.

LEGAL NOTES

The advice on how to use our products corresponds to the current state of our knowledge and does not entail the assumption of any guarantee and/or liability for the end result of the work. It is the responsibility of the user to verify the suitability of the product for his specific use, assuming all responsibility inherent in and deriving from the use of the product itself. Our technicians are at your disposal for information, clarifications and questions on the use and processing of our products. Updated information sheets are available on the website www.isolcore.com or can be requested from our offices.

EDITION

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