

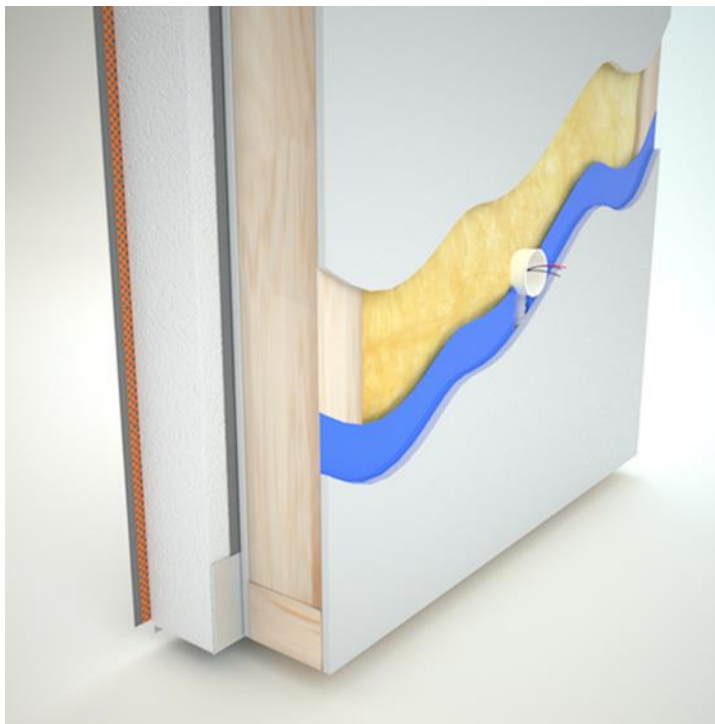
Insulation of buildings in skeleton structure.

To achieve maximum thermal comfort in a frame house, well-insulated walls and ceilings as well as joints between structural beams are needed.

The base of the wall in a frame house is an outer sheathing made of wood-based panels. From the outside, they should be protected with vapor permeable windproofing foil, which - as the name implies - protects against wind, but also against moisture. In addition, you can use a wood fiber board or mineral wool. The outer finish of the wall is usually a wooden or vinyl facing.

Walls are lined from the inside with a layer of thermal insulation, remembering to protect it with a vapor barrier film, which will protect it from absorbing moisture from inside the house.

Cross-section through the outer wall



1. GKFi board - thanks to it there is no need for additional plastering of internal walls, which eliminates the performance of wet works and the need for drying, as in the case of traditional plaster.
2. Vapor barrier film - prevents moisture from getting inside the partition. Thanks to this, structural wood and mineral wool insulation material is protected against moisture (wet insulation loses its thermal insulation properties).
3. V100 / MFP / OSB3 board - protects the structure against moisture penetration, stiffens the structure, strengthens the wall, thanks to which there are no problems with nail nailing, screwing screws and dowels
4. Wooden supporting structure - the use of this type of solution allows the entire space between beams to be filled with insulating material of non-combustible mineral wool. That is

why it is possible to obtain the highest thermal insulation parameters of our partition and that is why our houses are energy-saving houses.

5. Mineral wool - is a layer of excellent thermal and sound insulation. Thanks to its flexibility and elasticity, it perfectly fills the space between beams, which affects the elimination of all types of linear and point thermal bridges, which have a negative effect on the thermal insulation parameter of the partition.

6. V100 / MFP / OSB3 board - is a load-bearing layer for the second layer of insulation made of foamed polystyrene or, optionally, of mineral wool and stiffens the structure.

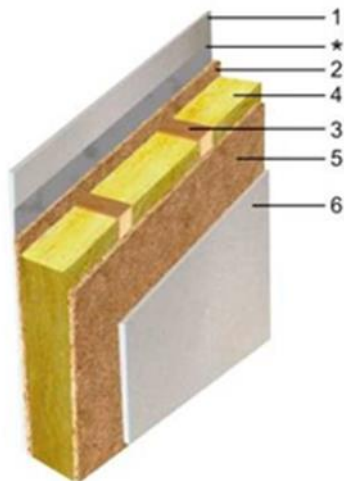
7. Adhesive for external insulation - it is used for gluing foamed polystyrene or wool to the V100 / MFP / OSB3 board.

8. External insulation - is the second layer of insulation, which further improves the insulation properties of the partition.

9. Mesh reinforced plaster foundation - a reinforcing layer for thin-layer plaster.

10. Plaster - the outer facade layer

Cross-section through the inner wall



1. GKF board - thanks to it there is no need for additional plastering of internal walls, which eliminates the performance of wet works and the need for drying, as in the case of traditional plaster.

2. V100 / MFP / OSB3 board - stiffens the structure and strengthens the wall, thanks to which there are no problems with nailing nails, screwing screws and dowels.

3. Wooden supporting structure - the use of this type of solution allows the entire space between beams to be filled with insulating material of non-combustible mineral wool. This makes it possible to obtain very good sound insulation parameters for our partition wall.

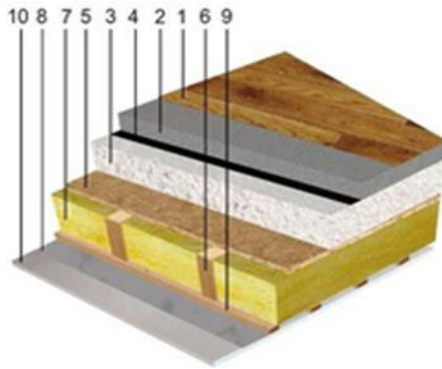
4. Mineral wool - it is a perfect acoustic layer. Thanks to its flexibility and elasticity, it perfectly fills the space between beams.

5. V100 / MFP / OSB3 board - stiffens the structure and strengthens the wall, thanks to which there are no problems with nailing nails, screwing screws and dowels.

6. GKF board - thanks to it there is no need for additional plastering of internal walls, which eliminates the performance of wet works and the need for drying, as in the case of traditional plaster.

7. Wall finishing - finishing coat, paint etc.

Cross-section through the inter-story ceiling



1. Finishing the floor - any finish e.g. wooden floor, terracotta, floor panels.
2. Concrete screed - causes the ceiling to be weighted, which improves its acoustic properties and allows laying any floor finish.
3. Styrofoam - provides sound insulation from impact noise, allows laying under the screed layer of installations - e.g. water, electric, central heating.
4. Building foil - prevents moisture from entering the interior of the partition.
5. V100 / MFP / OSB3 board - an element transferring the load evenly to the floor beams.
6. Floor beams - a structural element of the floor, which allows filling the space between the beams with sound insulation.
7. Mineral wool - sound insulation, in the transition period, when the floor is not finished, and only the ground floor is heated - it is a layer of thermal insulation.
8. Vapor barrier film - prevents moisture from entering the ceiling (especially in situations where only the ground floor is heated).
9. Supporting grid for GKF boards.
10. GKF boards - outer finishing layer - very simple installation, even surface, no need for long drying) as opposed to plaster.

Example of Insulation of buildings in skeleton structure.

