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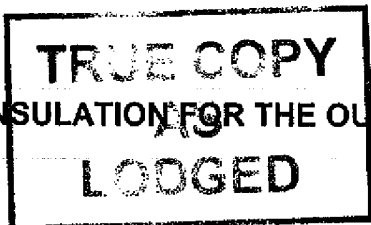
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(54) Title: Providing heat insulation for the outer sidings of the buildings

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PROVIDING HEAT INSULATION FOR THE OUTER SIDINGS OF BUILDINGS

Field of the Invention

The present invention relates to a product to be used on the outer sidings of the buildings, providing heat insulation, possible to be applied without profile and providing a tile-covered facade as its apparent front surface is tile.

Present State of the Art

In the embodiments according to the state of the art, when the similar siding materials are used in the building facades, curtain walls are created by using ceramic plate, aluminum plate derivatives or other siding materials by means of profiled mounting method on condition that the gap that the profile has created will be covered with a heat insulation material or curtain walls are created by means of providing exterior thermal sheating by using heat insulation material, plaster, last layer covering plaster and external wall paint and at the same time heat insulation is provided.

As it wastes time to obtain the materials to be used for insulation in the embodiments according to the state of art one by one and to mount them during the application in the building site, it also causes some quality problems and additional costs along with some functional loss.

Description of the Figures

Figure 1: A view of the layers belonging to the product according to the present invention

Figure 2: A montage view of the product according to the present invention

Description of the References:

- 1: Tile
- 2: Insulation material
- 3: Surrounding wall
- 4: Mounting net
- 5: Completed product of the present invention
- 6: wallplug

Description of the Invention

The present invention relates to a product to be used on the outer sidings of buildings, providing heat insulation, which is possible to apply without profile and providing a tile-covered facade as its apparent front surface is tile.

5 The present invention ends the requirement that different materials are mounted one by one after having been obtained for providing insulation for the buildings. Therefore building heat insulation is provided by means of only one single product. Moreover although it is mounted without using profile, an outer siding having a longer
10 physical life than that of a building generally is made possible as the apparent outer siding is made of ceramic or other materials that can be used in outer sidings of the buildings. The product according to the present invention basically comprises a combination of an insulation material (2) and tile (1). When ceramic tile is used in the product of the present invention, it will be possible for the ceramic to be used in different sizes and colors, which will pave the way for flexible facade designs.
15 However, the present invention is not limited to only using ceramic tile. The tile (1) that is located on the outer front facade of the product may be made of not only of ceramic, but also of different outer siding materials such as plastics, wooden, glass, metal, aluminum, aluminum composite, granite, natural stone, marble, laminate, vinyl, pressed brick, particle board, composite materials or any other material which
20 can be used in the outer siding of buildings and moreover these materials can also be used within the present invention.

Although the product (5) of the present invention has less thickness than the products used in the present state of art, it can provide heat insulation which is normally provided by using several materials. As is mentioned above, the product of
25 the present invention comprises a combination of an insulation material (2) and tile (1). All the layers of the product (5) are shown in Figure 1. Tile (1) is located on the outer front surface of the product (5), and as it is stated above, within the present invention, it is possible for the tiles made of not only ceramic, but also of different outer siding materials to be used on the outer front surface of the product. The
30 product (5) comprises a polyurethane-based insulation material (2) having B1-Class fire resistance at the back of the tile, surrounding wall (3) which surrounds the insulation material and a mounting net (4) on the back surface. The surrounding wall

(3) can be made of cement, clay, ceramic, brick, plastics, particle board or metallic materials. The mounting net (4) can be made of alkali resistant glass or plastics.

5 While the front surface of the surrounding wall (3) is open, all of its other surfaces and edges are closed. The insulation material (2) is received within the surrounding wall (3) and so that the open surface now becomes the insulation material. After the insulation material (2) has been located into the surrounding wall, the open outer front surface of the surrounding wall (3) will be closed by sticking the tile (1) onto the insulation material (2). The tile (1) is fixed onto the surface of the insulation material (2) by means of a polyurethane-based adhesive in a way that it will totally contact with the insulation material surface. Therefore, the front surface of the product (5) is covered with tile, while all the other edges and surfaces are surrounded with the surrounding wall. The product (5) comprises a mounting net (4) that is located at the back of the product in a way that it overflows upwards (Figure 1, 2) beyond the top of the surrounding wall.

15 The products (5) that are developed within the present invention are mounted onto the wall in a way that their front surfaces will be tile and they will be in a 100% contact with each other. The product (5) according to the present invention is mounted onto the wall by both being adhered by means of cement, polyurethane, epoxy or plaster-based adhesives that are applied totally onto their back and also by attaching the mounting net to the wall by means of wall plugs, for example RAWLPLUGS™ or other mechanical wall fixing (6). In addition to sticking the product (5) onto the wall by means of adhesive mixture attaching it (5) to the wall with its net by means of wallplug (6) causes the product (5) to be mounted also mechanically. In Figure 2, the product (5) is shown as it is mounted on the wall. The wallplugs (6) used can be made of plastics or metal.

CLAIMS

1. A product for providing heat insulation on the outer sidings of buildings and also to create a tile-covered curtain wall, characterized in that the product comprises:
5 a tile (1) on the outer front surface of the product;
a surrounding wall (3), one surface of which defines an opening while all the other surfaces are closed;
a polyurethane-based insulation material (2) placed through the opening and located within the surrounding wall (3) and at the back part of the tile; and
10 a mounting net (4) located at the backmost surface of the product in a way that it overflows upwards.
2. A product (5) according to Claim 1, characterized in that the product is mounted onto the wall both by adhering it to the wall after applying cement-based, polyurethane, epoxy or plaster-based adhesive to its back and by
15 attaching it (5) to the wall from its mounting net with wall plugs (6).
3. A product according to Claim 1 and 2, characterized in that the tile (1) is fixed onto the insulation material using a polyurethane-based adhesive in a way that
20 it will be in a total contact with the insulation material (2).
4. A product according to any one of the preceding claims, characterized in that the surrounding wall (3) is made of cement, clay, ceramic, brick, plastics, particle board or metallic materials.
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5. A product according to any one of the preceding claims, characterized in that the mounting net (4) is made of alkali resistant glass or plastics.
6. A product according to any one of the preceding claims, characterized in that
30 the tile (1) that has been located on its front surface is ceramic.
7. A product according to any one of the preceding claims, characterized in that the tile (1) that has been located on its front surface is made of plastics, wooden, glass, metal, aluminum, aluminum composite, granite, natural stone,

marble, laminate, vinyl, pressed brick, particle board, composite materials or any other material which can be used in the outer siding of buildings.

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8. A product for providing heat insulation on the outer sidings of buildings and also to create a tile-covered curtain wall as claimed according to any preceding claim and as described herein with reference to and/or as illustrated in the accompanying drawings.

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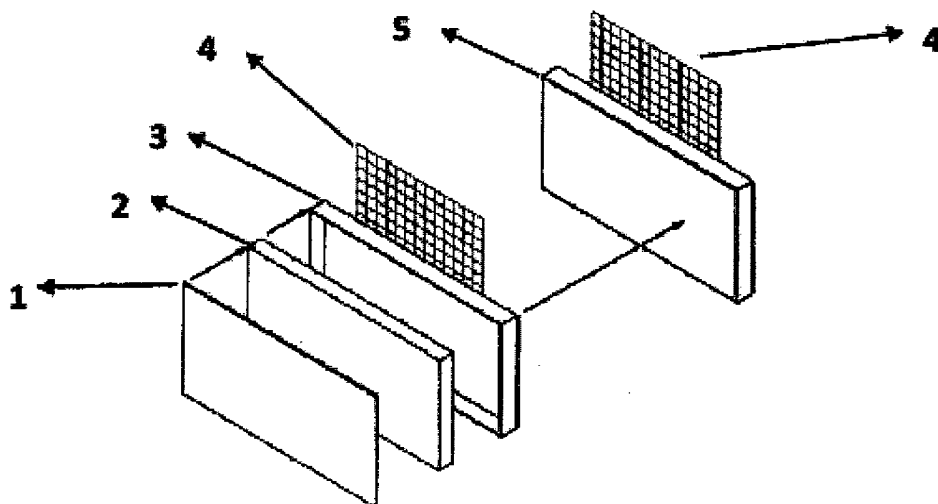


Figure 1

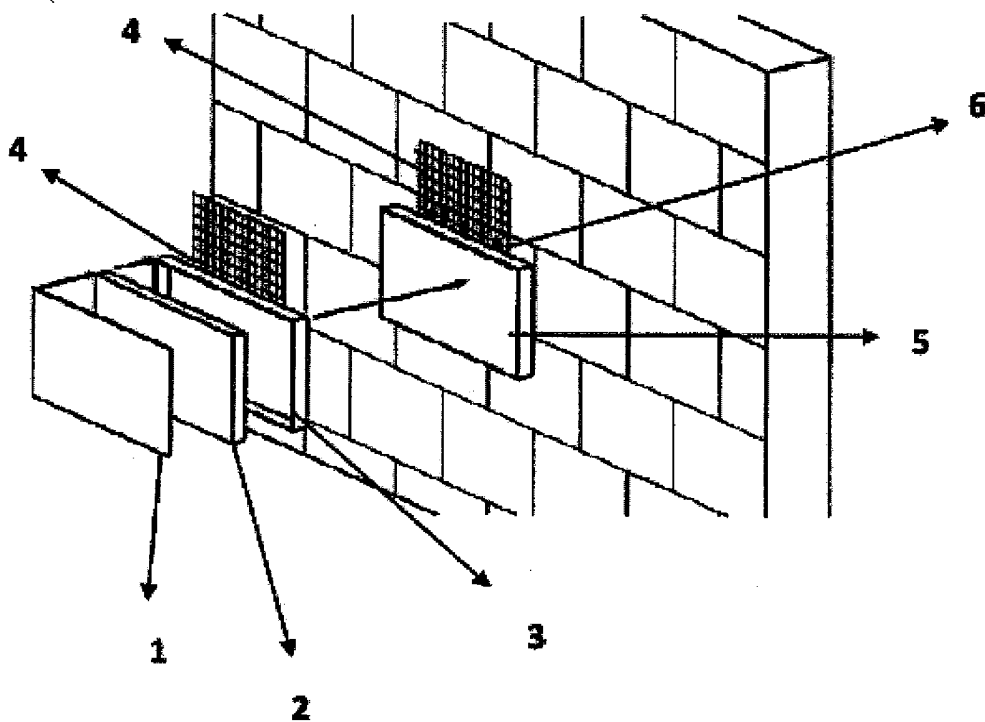


Figure 2