Flashing system for a building

The invention relates to a flashing system for a building, in particular for a roof (1) or a wall, comprising at least one metal sheet (13) for covering a part of the building. The system comprises a slotted element (16) that is part of or to be installed on or in the building, wherein the sheet (13) comprises a stiffened and/or thickened edge (14) for inserting and securing the sheet (13) in the slotted element (16).
The invention relates to a flashing system for a building, in particular for a roof or a wall, comprising at least one metal sheet for covering a part of the building, such as tiles of a roof or bricks in a wall.

Flashung systems typically include a impervious sheet of material, such as lead, placed in constructions to prevent water penetration or to direct flow of water. Flashing is used i.a. at roof hips and valleys, roof penetrations, joints between a roof and a vertical wall, and in masonry walls to direct the flow of water and moisture.

It is an object of the present invention to provide an improved flashing system.

To this end, the flashing system according to the present invention comprises a slotted element, preferably comprising a continuous slot, that is part of or to be installed on or in the building and the sheet comprises a stiffened and/or thickened edge for inserting, preferably through the slot in the slotted element and/or in a direction at least substantially perpendicular to the slotted element, and securing the sheet in the slotted element.

Thus, installation and/or replacement of the sheets is facilitated and/or handling of the sheets is improved, e.g. when a relatively soft metal such as lead is employed for the sheets.

In an embodiment, a strip is attached to the sheet along an edge of the sheet, the strip forming at least a part of the stiffened and/or thickened edge.

In a further embodiment, the sheet is at least locally slidable in the slotted element and/or the strip, in particular to allow slight local movement of the sheet in the longitudinal direction of the slotted element. Such slight relative movement reduces or avoids the forming of cracks resulting in particular from (cyclic) thermal expansion and/or contraction of the sheets.

In an embodiment, the strip is made from plastic or metal, preferably made from steel, preferably stainless steel, e.g. SS 316. Plastic and metal were found to provide sufficient stiffness and galvanic insulation of the sheet(s) from other metals, e.g. aluminium, in the flashing system or the building.

In an embodiment, the strip is folded and/or clamped about the edge of the sheet.

To facilitate insertion of the sheets, it is preferred that the edge and, if present, the strip has a substantially circular cross-section, e.g. with a flattened portion, and/or is hook-shaped.

In an embodiment, the at least one sheet is made from lead and/or has a thickness of at least 1 mm, preferably a thickness in a range from 1 to 4 mm, and/or a length of at least 50 cm, preferably a length in range from 70 to 130 cm, and/or a height of at least 5 cm, preferably a height in a range from 10 to 60 cm.

In another embodiment, the slotted element has an at least substantially circular cross-section open at at least one side to allow insertion, e.g. hooking in, of the metal sheet.

Figure 1 is a perspective view of a saddle roof comprising a flashing system according to the present invention.

Figure 2 is a cross-section of part of the roof shown in Figure 1.

Figure 3 is a perspective view of a sheet of a flashing system according to the present invention.

Figures 4 and 5 are cross-sections of the sheet in Figure 3 at different stages of manufacture.

Figures 1 and 2 show a saddle roof 1 comprising structural elements, in particular rafters 2 and a main beam 3, and roof slabs 4 fixed, e.g. nailed, to the rafters 2. Vertical battens 5 are fixed to the rafters 2, to the roof slabs 4 and/or to structural elements beneath, and horizontal battens 6 are fixed to the vertical battens 5 at some distance from the roof slabs to allow dirt and water to flow downwards and to improve ventilation. Rows of roof tiles 7 are supported on the horizontal battens 6.

An extrusion profile 8, e.g. made from aluminium, is mounted at the apex of the roof 1 via supports 9 and sideboards 10, which sideboards in turn are fixed to the rafters 2, e.g. via nails, screws or bolts. Ridge tiles 11 are positioned over the profile 8 to protect it from wind and rain and to prevent water from entering the space between the roof tiles and the roof slabs.

Lead flashing 12 is secured to the profile and extends between the upper row of tiles and the ridge tiles. The flashing is shown in more detail in Figures 3 to 5 and comprises a lead sheet 13. A stainless steel strip 14 is folded about one of the long edges of the sheet. The strip and the sheet sandwiched between it have been formed, e.g. bent or pressed, into the shape of a hook 15.

The ridge of the roof is provided, beneath the ridge tiles, with a slotted element. In this example, two slotted elements are defined in the extrusion profile, one on each side, and provide openings for receiving lead flashing 12.

In practice, after the profile has been installed...
and before the ridge tiles are installed, the sheets are hooked into the slots, e.g. inserted in the slots while held at a first angle and, once inserted, lowered a secure position. If required the metal sheets, e.g. lead, can than be pressed and shaped onto the tiles.

[0022] The invention is not restricted to the above-described embodiments which can be varied in a number of ways within the scope of the claims. For example, instead of a continuous slot, the slotted element can be provided with an intermittent slot or serial slots or openings effectively forming a slot or slots for receiving and securing sheets. In another example, the profile can comprise further features still, such as one or more rails or channels, slidably accommodating an anchor 17 for attaching a safety line (not shown). Details of suitable anchors can be found in WO 2012/056020.

Claims

1. Flashing system for a building, in particular for a roof (1) or a wall, comprising at least one metal sheet (13) for covering a part of the building characterized by a slotted element (16) that is part of or to be installed on or in the building, wherein the sheet (13) comprises a stiffened and/or thickened edge (14) for inserting and securing the sheet (13) in the slotted element (16).

2. Flashing system according to claim 1, wherein a strip (14) is attached to the sheet (13) along an edge of the sheet (13), the strip (14) forming at least a part of the stiffened and/or thickened edge.

3. Flashing system according to claim 2, wherein the sheet (13) is at least locally slidable in the slotted element (16) and/or the strip (14).

4. Flashing system for any one of the preceding claims, wherein the strip (14) is made from plastic or metal.

5. Flashing system according to claim 4, wherein the strip (14) is made from steel, preferably stainless steel.

6. Flashing system according to any one of claims 2-5, wherein the strip (14) is folded and/or clamped about the edge of the sheet (13).

7. Flashing system according to any one of the preceding claims, wherein the edge and, if present, the strip (14) has a substantially circular cross-section and/or is hook-shaped.

8. Flashing system according to any one of the preceding claims, wherein the sheet or sheets (13) are made from lead.

9. Flashing system according to any one of the preceding claims, wherein the at least one sheet (13) has a thickness of at least 1 mm, preferably a thickness in a range from 1 to 4 mm, and/or a length of at least 50 cm, preferably a length in range from 70 to 130 cm, and/or a height of at least 5 cm, preferably a height in a range from 10 to 60 cm.

10. Flashing system according to any one of the preceding claims, wherein the slotted element (16) has an at least substantially circular cross-section open at one side to allow insertion of the metal sheet (13).

11. Flashing system according to any one of the preceding claims, wherein the slotted element (16) is part of a profile, preferably an extrusion profile (8).

12. Flashing system according to any one of the preceding claims, wherein the slotted element (16) is mounted on or part of a ridge beam or an element defining the ridge beam.

13. Flashing system according to any one of the preceding claims, wherein the slotted element (16) is mounted on or part of a rail slidingly accommodating an anchor (17).

14. Flashing system according to any one of the preceding claims, wherein the ridge beam and/or the rail are integrated in the same element, preferably an extrusion profile (8).

15. Building comprising a flashing system according to any one of the preceding claims mounted in a wall or on a roof, preferably beneath the ridge tiles (11) of a roof (1) and/or preferably on or as part of a ridge beam.
## DOCUMENTS CONSIDERED TO BE RELEVANT

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The present search report has been drawn up for all claims.

### PLACE OF SEARCH:
The Hague

Date of completion of the search: 13 January 2014

Examiner: Tran, Kim Lien

### CATEGORY OF CITED DOCUMENTS:
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For more details about this annex: see Official Journal of the European Patent Office, No. 12/82
REFERENCES CITED IN THE DESCRIPTION

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