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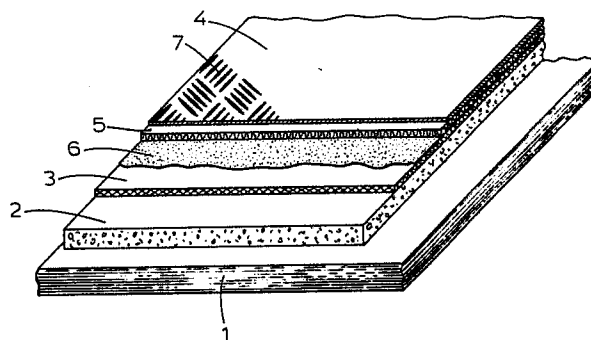
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54 **Drivable cover layer for a flat roof or the like.**

57 The invention relates to a drivable cover layer for a flat roof or the like, comprising an insulating layer and/or a water-tight layer and a drivable top layer positioned there above, existing of a sheet-like upper layer and an elastic lower layer connected to said upper layer along its entire surface and being supported by the insulating layer and/or water-tight layer.



Drivable cover layer for a flat roof or the like

The invention relates to a drivable cover layer for a flat roof or the like, comprising an insulating layer and/or a water-tight layer and a drivable top layer positioned there above.

5 A known cover layer of this type is used in a parking roof. The top layer of this cover layer has to withstand the loads of vehicles on top of said parking roof without the insulating layer and/or the water-tight layer being damaged. For this purpose the top layer of this known cover layer com-
10 prises for example a lower layer of concrete plates positioned on supports and extending at some distance above the insulating layer and/or water-tight layer, and an upper layer of melted asphalt positioned on said concrete plates. Loads occurring are led into the roof construction through the
15 supports and thus do not lead to unacceptable stresses in the insulating layer and/or water-tight layer.

A disadvantage of this known cover layer is the high weight, amounting about 150 to 200 kg/m². In comparison: the average load induced by vehicles on top of the cover
20 layer amounts about 50 to 150 kg/m². The high cover layer weight sets high demands to the roof construction and often obstructs the application of this cover layer when adapting existing roofs to parking roofs.

It is an object of the invention to provide a cover
25 layer of the type referred to above eliminating said disadvantage in a simple but nevertheless effective way.

Therefore the cover layer according to the invention is characterized in that the top the layer exists of a sheet-like upper layer and an elastic lower layer connected
30 to said upper layer along the entire surface thereof, said lower layer being supported by the insulating layer and/or water-tight layer.

The sheet-like upper layer is extremely suitable for carrying concentrated loads, for example the wheel-
35 pressure of vehicles. Through the elastic lower layer these concentrated loads are regularly divided over the entire surface of the insulating and/or water-tight layer that as a result, nowhere experiences an unacceptable high pressure.

Further the load-dividing action of the elastic lower layer is influenced positively through the fact that this lower layer is connected to said upper layer along its entire surface. As a result a transverse motion of the elastic lower layer (transverse contraction), when being compressed, is avoided and a large transversal coherence is provided in this layer with the said positive effect, further limiting the vertical compression. A reduction of the transverse contraction of the elastic lower layer is of essential importance with respect to the quality and the applicability of the cover layer according to the invention.

According to a preferred embodiment of the cover layer according to the invention the top layer is characterized in that the top layer is connected to the insulating layer and/or water-tight layer by means of an adhesive.

Further to the fixation of the top layer this provides a further improvement of the behaviour of the elastic lower layer; it is preferred that the elastic lower layer comprises a rubber material adhered to the upper layer by vulcanisation or glueing, whereas it is advantageous if the upper layer comprises a metal sheet, such as an aluminum sheet.

Hereafter the invention will be elucidated further with reference to the drawing showing a perspective view of an embodiment of a cover layer according to the invention.

The drawing illustrates a flat roof construction known per se, that either is specially constructed to be provided with a drivable top layer or will be adapted for this reason. In the first case the flat roof construction can be constructed more light-weighted than when using a conventional top layer, whereas in the second case the already more light-weighted construction will be of no problem when applying the drivable top layer.

On the roof construction 1 are provided an insulating layer 2 and a water-tight layer 3 of a known type. It is possible to interchange these two layers 2, 3 so that the insulating layer 2 will be on top of the water-tight layer 3.

The top layer comprises a sheet-like upper layer 4

and an elastic lower layer 5. The upper layer 4, that comprises a metal sheet, is connected to said upper layer 5 along its entire surface. When the lower layer 5 comprises a rubber material, such as a granular rubber bound with

5 polyurethan, the connection between the lower layer 5 and the upper layer 4 will be obtained by vulcanisation. Between the lower layer 5 and the water-tight layer 3 an adhesive layer 6 is provided. Said adhesive layer 6 comprises for example a cold adhesive.

10 The metal sheet 4 is provided with a profile 7 and defines a so-called tears-sheet. The profile 7, that can have every suitable shape, enlarges the roughness or the coefficient of friction of the outer surface of the metal sheet 4, offering a suitable drivable surface.

15 For obtaining a surface large enough it is possible to position a number of metal sheets 4 one beside of the other.

 The invention is not limited to the embodiment illustrated before, but can be varied widely within the scope
20 of the invention.

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CLAIMS

1. Drivable cover layer for a flat roof or the like, comprising an insulating layer and/or a water-tight layer and a drivable top layer positioned there above, characterized in that the top layer exists
5 of a sheet-like upper layer and an elastic lower layer connected to said upper layer along the entire surface thereof, said lower layer being supported by the insulating layer and/or water-tight layer.

2. Cover layer according to claim 1, characterized in that the top layer is connected to the insulating layer and/or water-tight layer by means of an adhesive.

3. Cover layer according to claim 2, characterized in that the adhesive comprises a cold
15 adhesive.

4. Cover layer according to one of the claims 1-3, characterized in that the elastic lower layer comprises a rubber material adhered to the upper layer by vulcanisation or glueing.

20 5. Cover layer according to claim 4, characterized in that the rubber material consists of a granular rubber bound with polyurethan.

6. Cover layer according to one of the claims 1-5, characterized in that the upper layer
25 comprises a metal sheet, such as an aluminum sheet.

7. Cover layer according to claim 6, characterized in that the metal sheet is profiled.

8. Cover layer according to claim 6, characterized in that the metal sheet consists of a
30 so-called tears-sheet.

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