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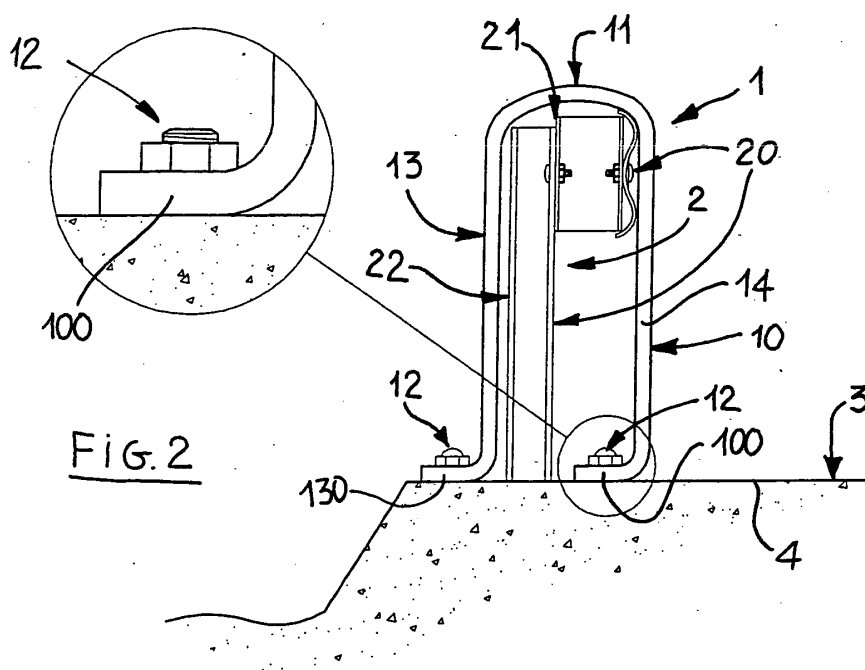
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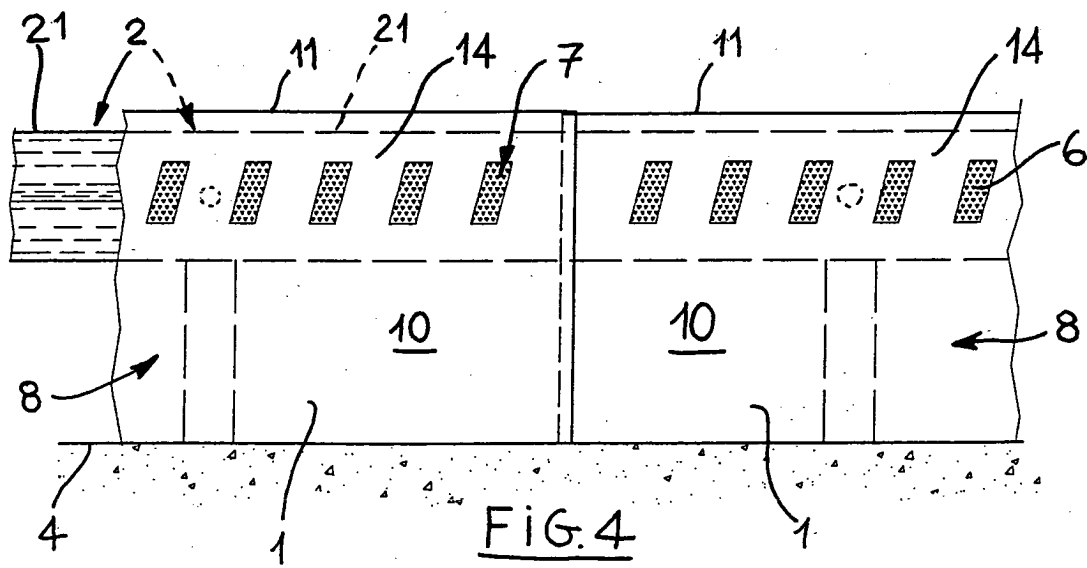
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(54) **Cover element for highway barriers or guardrails**

(57) A cover element 1 for highway barriers or guardrails comprising: a first portion 10 that can be located on the front part 20 of a guardrail 2 facing the roadway 3 and having a height sufficient to cover the front part 20 of the guardrail 2 at least from the ground 4 to the maximum height of the guardrail 2 itself; a second portion 11, connected to the first portion 10, that can be located above the upper part 21 of the guardrail 2 and having a width sufficient to cover at least the entire width of the upper part 21 of the guardrail 2; means 12 for fixing the cover element 1 in position relative to the

guardrail 2. The cover element 1 has a preset length, corresponding to at least one section of the guardrail 2, is manufactured in a partially shock-absorbent material (preferably rubber) and has, on the part opposite to the guardrail 2 and extending at least for the entire first portion 10 and the entire second portion 11, a continuous outer surface without any sharp edges. One or more cover elements 1 joined together to form a cover module 8 for highway barriers or guardrails. A plurality of cover modules 8 can form a cover for highway barriers or guardrails.





Description

[0001] The present invention relates to a cover element for highway barriers or guardrails. The present invention also relates to a cover module for highway barriers or guardrails comprising one or more of such cover elements, and also relates to a highway barrier or guardrail cover made from such elements or cover modules.

[0002] Highway barriers of the type widely known as guardrails are fixed rails, usually made from sheet steel or a similar metal material, positioned alongside roadways with the purpose of containing or correcting, at least within certain limits, the trajectory of a vehicle leaving the roadway in the event of an accident.

[0003] For the sake of simplicity, in the description which follows the term highway barrier will be referred to as guardrail, the term now most commonly and widely used.

[0004] In general, guardrails consists of a series of up-rights or vertical supports positioned at a regular distances from each other to which one or more rails are attached by fixing means such as bolts or other devices. These rails are in turn made from one or more shaped metal plates which are positioned at various heights generally corresponding to the centres of gravity of the most common types of motor vehicle. The rails are manufactured in sections of set lengths (usually between three and four metres) which partially overlap and are joined to each other with flat-head bolts.

[0005] The shape and bending of the sheet metal used for the supports and the rails, the fixing elements used (bolts, screws and other devices) and the reflectors usually fixed to the rails to make them visible at night, all mean that guardrails present numerous sharp, cutting edges and protrusions. These could be very dangerous to motorcyclists or cyclists in the event of an accident, a fall or a skid where the motorcycle or cycle collides with the guardrail. Quite frequently following such collisions, motorcyclist and cyclists suffer permanent disability or serious injury caused by the presence of these sharp, cutting edges.

[0006] Guardrails made from sheet metal are now so widely used that their substitution with other barrier types (for example, those made from concrete) which do not present sharp, cutting and potentially hazardous edges is considered too complicated and expensive.

[0007] The aim of the present invention is to overcome the shortcomings described above by providing a cover element for highway barriers or guardrails which could be used to make cover modules or covers for motorway barriers or guardrails. These could be applied directly to existing guardrails and thus reduce the hazard described previously. A further aim of this invention is to provide a cover element for highway barriers and guardrails which has a simple structure and which is easy to apply following, in particular, a method described in this invention. A further aim of this invention is to provide a cover element for highway barriers or guardrails which

could be manufactured, at least in part, with recycled material.

[0008] These and further aims, which will become clear in the description which follows, are achieved by the present invention for a cover element for highway barriers or guardrails, a cover module for highway barriers or guardrails made from one or more such elements, and a cover for highways barriers or guardrails made by joining one or more such modules, having the structural and functional characteristics in accordance with the enclosed independent claims; further embodiments of the same are identified in the enclosures and corresponding dependent claims.

[0009] The invention is described in detail below with the aid of drawings which illustrate a preferred embodiment provided merely by way of example without restricting the scope of the inventive concept, and in which:

- Figure 1 is a perspective view of a guardrail section seen from outside the roadway, and a detailed side view.
- Figure 2 is a side view and partial cross-section of the cover element according to the invention, applied to the guardrail with a detail view for the ground fixing.
- Figure 3 is a partial cross-section from the same view as figure 2, showing a variant of the cover element subject of the present invention.
- Figure 4 is a front view, seen from the roadway, of a guardrail section covered with cover elements or cover modules according to the present invention.
- Figure 5 is a perspective view, with some parts cut away in order to better illustrate others, showing the structure of a basic component of the cover element according to the present invention.
- Figure 6 is a cross-section of section A-A in figure 5 and shows two examples of the structure of a component layer in figure 5.
- Figure 7 shows the part of a vehicle tyre which could be used to obtain the substantially adjacent, parallel strips that comprise the layer in figure 6.
- Figures 8 and 9 show two steps in the assembly of the cover element (or relative cover module) on the guardrail.
- Figure 10 is a similar view to figure 2 showing a further variant of the invention.

[0010] With reference to the accompanying figures, the cover element 1 for highway barriers or guardrails is made from material which is at least partially shock absorbent. The cover element 1 is made mainly from an elastic material, preferably rubber.

[0011] In the description which follows, for the sake of simplicity, the terms "highway barrier" and "guardrail" will be considered as synonyms and the term "guardrail" will always be used.

[0012] The cover element 1 has a preset length cor-

responding to at least one lengthways section of a guardrail 2 and comprises a first portion 10 and a second portion 11.

[0013] The first portion 10 can be located on the front part 20 of a guardrail 2 facing a roadway 3 and has a height sufficient to cover the front part 20 of the guardrail 2 at least from the ground 4 to the maximum height of the guardrail 2 itself.

[0014] The second portion 11 is connected to the first portion 10 and can be located over the upper part 21 of the guardrail 2 and has a width sufficient to cover at least the entire width of the upper part 21 of the guardrail 2.

[0015] Once applied, the cover element 1 has, on the part opposite the guardrail 2 and at least corresponding to the entire first portion 10 and the entire second portion 11, a continuous outer surface that is without sharp edges.

[0016] There are also fixing means 12 for attaching the cover element 1 to the guardrail 2.

[0017] In this way it is possible to cover the guardrail 2 section with the cover element 1 so that it does not present a cutting or serious injury hazard for a motorcyclist or cyclist who might collide with the guardrail for any reason.

[0018] For this purpose, the cover element 1 also comprises a third portion 13, connected to the second portion 11, that can be located on the rear part 22 of the guardrail 2 opposite the roadway 3 and which has a height sufficient to cover the rear part 22 of the guardrail 2 at least up to a preset distance of the maximum height of the guardrail 2 itself. Preferably, the third portion 13 extends at least to the ground 4. Furthermore, the continuous outer surface without sharp edges of the cover element 1 can be extended for the entire third portion 13. This maximises the protection offered to the body of any person who might collide with the section of guardrail 2 covered by the covering element 1.

[0019] The fixing means 12 can be of various types known to expert persons. The means can act between the body of the cover element 1 and the parts of the guardrail 2, or between the body of the cover element 1 and the ground 4. It is of the greatest importance that they do not have sharp or protruding parts facing directly towards the roadway 3 and are not covered by the first and second portions 10, 11.

[0020] In this regard, a convenient feature of the first portion 10 comprises a contact flap 100 in contact with the ground 4 which is bent towards the guardrail 2 when the cover element 1 is applied to the guardrail 2. The fixing means 12 (for example, one or more pins, bolts or screws) can act on the contact flap 100 and the ground 4 so as to be hidden from the roadway 3 by the first portion 10, as illustrated in figures 2 and 9. Furthermore, in this embodiment, the cover element 1 is fixed to the ground 4 without leaving any potentially hazardous cutting edges at the level of the ground 4.

[0021] A matching flap 130 can be provided on the third portion 13 in the case where the third portion is

extended to the ground. In this case, however, it will not be necessary to fold the flap towards the guardrail 2 when the cover element 1 is applied to the guardrail 2 itself. A further advantage here, as illustrated in figures 2 and 9 is that the matching flap 130 is folded away from the guardrail (in other words, folded in the same way as flap 100) in order to facilitate the fixing of the third portion 13 to the ground 4 by means of the fixing means 12 once the cover element 1 has been applied.

[0022] In a preferred embodiment of the invention, the cover element 1 comprises at least one flexible sheet 14 of elastic material (preferably rubber) that is bent over the guardrail 2 so as to define at least the first and second portions 10, 11 of the cover element 1. In this case, the flap 100 can be obtained by directly folding the sheet 14 along its edge on the part corresponding to the first portion 10.

[0023] In order to fulfil this purpose, the sheet 14, once it has been bent over the guardrail 2, has a height sufficient to extend over the rear part 22 of the guardrail 2 at least to a distance determined by the maximum height of the guardrail 2. Preferably, the sheet 14 should extend so that it at least touches the ground 4 on both sides of the guardrail 2. In this way the sheet 14 defines the first and second portions 10 and 11 and at the same time the third portion 13 of the cover element 1. In the case where the sheet 14 touches the ground 4 on both sides of the guardrail 2, the matching flap 130 can be obtained by directly bending the sheet 14 along the sheet edge that will make contact with the ground 4 on the side of the guardrail 2 that is opposite to the roadway 3.

[0024] The sheet 14 can be a solid, single layer material or, preferably, could be a material with a layered structure. With reference to figures 5 and 6, the sheet material comprises at least a first and second layer 140, 141 firmly joined together and where the first layer 140 is solid. The primary purpose of the first layer 140 is to give the cover element 1 a continuous outer surface without any sharp edges, thereby making this characteristic substantially independent of the structure of the second layer 141.

[0025] The second layer 141 can therefore fulfil a more structural function and in particular among other things has the function of absorbing and resisting impacts. The second layer 141 does not necessarily have to cover the entire area of the sheet 14. It is sufficient that it covers at least all the area corresponding to the first portion 10 of the cover element 1 and at least part of the area corresponding to the second portion 11. In the preferred embodiment illustrated in figure 10, it covers at least all the area corresponding to both the first and the second portions 10, 11 and also at least a small part of the area corresponding to the third portion 13 of the cover element 1 (where this is present). In this way, the second layer 141 can be made particularly thick and resistant, while the first layer 140, which is not joined to the second layer 141, can give the sheet 14 as a whole

the necessary flexibility for it to be mounted over the guardrail 2.

[0026] Where opportune, the sheet 14 can include a third solid layer 144 with an area and shape which is substantially similar to that of the first layer 140 and which is solidly joined to the second layer 141 at those points where this is present and to the first layer 140 at those points where the second layer 141 is not present.

[0027] Clearly, at those points where the second layer 141 is not present, the sheet 14 has a structure with two layers only. This occurs mainly in the third portion 13 (where this is present, as illustrated in figure 10) and/or in that part of the second portion 12 that is not touched by the second layer 141. This two-layer zone of the sheet 14, formed by directly joining the first and third layers 140, 144, can be used to give the sheet as a whole the good elasticity necessary to enable its mounting over the guardrail 2. Furthermore, as shown below in the description of the method for assembling the cover element 1, this zone facilitates the trimming of surplus material from the sheet 14 in the case where the sheet extends to touch the ground 4 on the side of the guardrail 2 opposite the roadway 3.

[0028] Figure 10 illustrates, with reference to a cover element 1 already mounted on the guardrail 2, an example of sheet 14 where the second layer 141 only partly covers the area of the sheet 14 itself. Clearly, in those cases where it may be deemed necessary, the second layer 141 could be extended to the entire area of the sheet 14.

[0029] Preferably, the second layer 141 is composed of a composite layer. In particular, the second layer 141 comprises first strips 142 of elastic material which are parallel and substantially adjacent to each other and which are of a preset thickness and width. Preferably, the first strips 142 are positioned in the first portion 10 of the cover element 1 so that their lengthways extension is substantially vertical. In this case, their lengthways extension can constitute the height of the second layer 141 of the sheet 14. Preferably and furthermore, the first strips 142 are made from material taken from used motor vehicle tyres 5. In particular, as illustrated also in figure 7, the first strips 142 are made from a portion of tread 50 of used tyres 5, removed from the tyres 5 and laid flat. The portion of tread 50 includes at least part of the reinforcing fabric thus advantageously giving the sheet 14 a particular mechanical resistance. The portions of tread 50 used for the first strips 142 are removed from radial tyres 5. The first strips 142 obtained in this way have a very limited curvature across their lengthways extension so that once they are laid flat, practically their entire width can be used without creating any flatness problems to the second layer 141 or as a consequence to the sheet 14. Using worn tyres 5 requiring recycling is particularly advantageous. Used tyres 5 are produced in enormous quantities given the large number of motor vehicles in circulation. The recycling of used tyres, in the absence of partial recycling

solutions such as the one proposed in the present invention, is a serious and costly problem. The basic material for making the first strips 142 is therefore in plentiful supply, is easy to obtain and is economical.

[0030] The second layer 141 also comprises second strips 143 of elastic material, placed crossways to the first strips 142 and joined to them. In a preferred embodiment of the invention, illustrated in figures 5 and 6, the first and second strips 142, 143 are interwoven like the weave of a textile. In particular, the second strips 143 can be placed substantially parallel to each other, at a preset distance from each other, each second strip 143 passing alternately above, below and then above again, the layer of first strips 142 at the first consecutive strips 142, as illustrated in the figures 5 and 6. Figure 6 shows two possible weaves of this type. The top illustration in the figure shows a slightly less rigid version while the bottom illustration shows a more rigid version.

[0031] Clearly, the first and second strips 142, 143 should preferably be joined together in such a way as to guarantee the maximum flatness of the sheet 14.

[0032] The various layers of the sheet 14 can be joined together in various ways including, for example, by gluing, welding, stapling or similar methods. Gluing and welding are to be preferred as are all the joining methods which do not involve the creation, on the outer face of the first layer 140, of projections, protrusions or anything which might prove hazardous in the event of impact with the human body. The same methods could also be used to bind the first strips 142 and the second strips 143 together; in this case, given the presence towards the outside of at least the first layer 140, fewer precautions need to be taken in order to prevent any surface irregularities (which will in any case later be covered by the first layer 140 and by a third layer 144 where one is present).

[0033] A further advantage is illustrated in figure 3 where the cover element 1 can also comprise a reinforcing element 15 applied directly to the upper part 21 of the guardrail 2 and constituting a support over which the sheet 14 can be folded and stretched when it is applied to the guardrail 2. The lower part of the reinforcing element 15 can have a lower part shaped to match those zones of the upper part 21 of the guardrail 2 to which it is fixed in order to facilitate application. The reinforcing element 15 can be made from polystyrene, polyurethane or any other material suitable for the purpose.

[0034] As illustrated in figure 4, the surface of the first portion 10 facing towards the roadway 3 could carry reflector elements 6 or, preferably, be stamped with reflective paint areas 7.

[0035] The invention includes the production of cover modules 8 for highway barriers or guardrails where each module comprises a cover element 1 according to one of the embodiments described previously. Each cover module 8 can comprise two or more cover elements 1 joined together. In general, in the preferred embodiment of the invention involving the presence of the sheet 14,

each module 8 can have a single cover element 1 and can also have more complex modules 8. Each cover module 8 has a preset length. Preferably, this length must be inversely proportional to the curvature of the guardrail 2 to which the module 8 is applied. This method would facilitate the production of guardrail covers 2 also for very tight corners in a road. Preferably, the average length for a module cover 8 is between one and two meters including the ends. With a plurality of cover modules 8 as those described above (or single cover elements 1 where each single cover module 8 comprises a single cover element 1) it is easy to produce covers for existing guardrails 2, making these safe without having to substitute them. A further advantage is that each cover module 8 (or each cover element 1 where the module 8 comprises one element only) is removable. Given that the structure is modular it will be quick and economical to repair any sections damaged following an impact or an accident.

[0036] When the cover element 1 is made in the form of a flexible sheet 14, and in particular when the sheet 14 has a length such that when folded on the guardrail 2 the third portion 13 extends to at least touch the ground 4, the assembly of the cover element 1 (and as a consequence of the relative module 8) can very simply be performed as follows.

[0037] First, the sheet 14 is laid out on the ground in front of the guardrail 2 facing the roadway 3, with the first layer 140 (or, in other words, with the outer surface which once the cover element 1 has been assembled will be on the opposite side of the guard rail 2) facing the ground 4. With the sheet 14 in this position, the part of the sheet 14 corresponding to the flap 100 of the first portion 10 is fixed to the ground 4 with the fixing means 12 (for example, bolts or pins). After any reinforcing element 15 required has been fitted the upper part 21 of the guardrail 2, the flexible sheet 14 is raised towards the guard rail 2 (as indicated by the dashed line in figure 8) and is bent over the guardrail upper part 21 (as indicated by the full line in figure 8) until the sheet 14 extends to touch the ground 4 on the opposite part of the guardrail 2 to the roadway 3. The fixing means 12 used to fix the flap 100 to the ground 4 thus remain hidden between the flexible sheet 14 and the guardrail 2. At this point, as indicated in figure 9, the sheet 14, now firmly stretched, is bent upwards to form the matching flap 130 of the third portion 13 and fixed in position with the fixing means 12. Any surplus material which remains on the length of the flexible sheet 14 after the fixing means 12 of the third portion 13 (and indicated by the dashed line with the reference number 145 in figure 9) can be cut off. This operation, in the case of a sheet 14 with a layered structure, can be easier if the surplus length comprises the single first layer 140 only or, at the most, the joint between the first and third layers 140, 144.

[0038] Figure 8 illustrates the intermediate stage of raising, tensioning and bending the sheet 14 over the guardrail 2. Figure 9 illustrates the final assembly stage,

with the final fixing of the sheet 14 to the ground 4 by means of the matching flap 130 on the third portion 13.

[0039] The invention has considerable advantages.

[0040] Firstly, the invention makes existing highway barriers much more safe for motorcyclists and cyclists without requiring the total substitution of the barrier. Furthermore, the cover elements used for making the single cover modules or the entire cover have a particularly simple and flexible structure in sheet form and would be easy to manufacture on a large scale and also to cut to the size required. The sheets themselves have a resistant core which could be produced, economically and effectively, almost entirely of recycled material such as the tread of used motor vehicle tyres. The modular design of the cover thus obtained enables easy repair of short sections which may be damaged for any reason.

[0041] The invention so designed is open to numerous modifications and variations which in no way depart from the scope of the inventive concept.

[0042] Moreover, all the details of the invention may be substituted by technically equivalent elements.

[0043] In practice, any materials and dimensions can be used in order to match requirements.

Claims

1. A cover element (1) for highway barriers or guardrails **characterised in that** it comprises:

- a first portion (10), that can be located on the front part (20) of a guardrail (2) facing a roadway (3) and having a height sufficient to cover the front part (20) of the guardrail (2) at least from the ground (4) to the maximum height of the guardrail (2) itself;
- a second portion (11), connected to the first portion (10), that can be located over the upper part (21) of the guardrail (2) and having a width sufficient to cover at least the entire width of the upper part (21) of the guardrail (2);
- fixing means (12) for attaching the cover element (1) to the guardrail (2);

the cover element (1) being made from a material which is at least partially shock absorbent; the cover element (1) also having a preset length corresponding to at least one lengthways section of guardrail (2) and having, on the part opposite the guardrail (2) and at least on the entire first portion (10) and the entire second portion (11), an outer surface that is substantially continuous and without sharp edges.

2. The cover element (1) according to claim 1, **characterised in that** it further comprises a third portion (13), connected to the second portion (11), that can be located on the rear part (22) of the guardrail (2)

opposite the roadway (3) and having a height sufficient to cover the rear part (22) of guardrail (2) at least up to a preset distance of the maximum height of the guardrail (2) itself.

3. The cover element (1) according to claim 2, **characterised in that** the third portion (13) extends at least to the ground (4).
4. The cover element (1) according to claim 2 or 3, **characterised in that** the continuous outer surface without sharp edges of the cover element (1) can be extended for the entire third portion (13).
5. The cover element (1) according to any of the foregoing claims, **characterised in that** the first portion (10) comprises a contact flap (100) in contact with the ground (4) which is bent towards the guardrail (2) when the cover element (1) is applied to the guardrail (2) itself.
6. The cover element (1) according to any of the foregoing claims, **characterised in that** it comprises at least one flexible sheet (14) of elastic material that can be bent over the guardrail (2) so as to define at least the first and second portions (10, 11) of the cover element (1).
7. The cover element (1) according to claim 6, **characterised in that** the elastic material is rubber.
8. The cover element (1) according to claim 6 or 7, **characterised in that** the sheet (14), once it has been bent over the guardrail (2), has a height sufficient to extend over the rear part (22) of the guardrail (2) opposite the roadway (3) at least to a distance determined by the maximum height of the guardrail (2).
9. The cover element (1) according to claim 8, **characterised in that** the sheet (14) extends so that it at least touches the ground (4) on both sides of the guardrail (2).
10. The cover element (1) according to any of the claims from 6 to 9, **characterised in that** the sheet (14) comprises at least a first and a second layer (140, 141) firmly joined together and where the first layer (140) is solid.
11. The cover element (1) according to claim 10, **characterised in that** the second layer (141) comprises first strips (142) of elastic material which are parallel and substantially adjacent to each other and which are of a preset thickness and width.
12. The cover element (1) according to claim 11, **characterised in that** the first strips (142) are positioned

in the first portion (10) of the cover element (1) in such a way that their lengthways extension is substantially vertical.

- 5 13. The cover element (1) according to claim 11 or 12, **characterised in that** the first strips (142) are made from material from used motor vehicle tyres (5).
- 10 14. The cover element (1) according to claim 13, **characterised in that** the first strips (142) are made from a portion of tread (50) of used tyres (5), removed from the tyres (5) and laid flat.
- 15 15. The cover element (1) according to claim 14, **characterised in that** portion of tread (50) comprises at least part of the reinforcing fabric.
- 20 16. The cover element (1) according to claim 14 or 15, **characterised in that** the tyres (5) used are radial tyres.
- 25 17. The cover element (1) according to any of the claims from 11 to 16, **characterised in that** the second layer (141) further comprises second strips (143) of elastic material placed crossways to the first strips (142) and joined to them.
- 30 18. The cover element (1) according to claim 17, **characterised in that** the first and second strips (142, 143) are interwoven like the weave of a textile.
- 35 19. The cover element (1) according to claim 18, **characterised in that** the second strips (143) are placed substantially parallel to each other and at a preset distance from each other, each second strip (143) passing alternately above, below and then above again, the layer of first strips (142) at the consecutive first strips (142).
- 40 20. The cover element (1) according to any of the claims from 10 to 19, **characterised in that** the second layer (141) covers at least the entire area of the sheet (14) corresponding to the first portion (10) of the cover element (1) and at least part of the area of the sheet (14) corresponding to the second portion (12) of the cover element (1).
- 45 21. The cover element (1) according to claim 20, **characterised in that** the second layer (141) covers at least part of the area of the sheet (14) which, when the sheet (14) is bent over the guardrail (2), extends over the rear part (22) of the guardrail (2) opposite the roadway (3) at least up to a preset distance of the maximum height of the guardrail (2).
- 50 22. The cover element (1) according to any of the claims from 10 to 21, **characterised in that** the sheet (14) comprises a solid third layer (144) which
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has an area and shape that substantially corresponds to the first layer (140) and is firmly joined to the second layer (141) where this is present and to the first layer (140) in those cases where the second layer (141) is not present.

23. The cover element (1) according to any of the claims from 6 to 22, **characterised in that** it further comprises a reinforcing element (15) applied directly to the upper part (21) of the guardrail (2) and constituting a support over which the sheet (14) can be bent and stretched when it is applied to the guardrail (2). 10
24. The cover element (1) according to claim 23, **characterised in that** the reinforcing element (15) has a lower part shaped to match those zones of the upper part (21) of the guardrail (2) to which it is fixed. 15
25. The cover element (1) according to claim 23 or 24, **characterised in that** the reinforcing element (15) is made from polystyrene. 20
26. The cover element (1) according to claim 23 or 24, **characterised in that** the reinforcing element (15) is made from polyurethane. 25
27. The cover element (1) according to any of the foregoing claims, **characterised in that** the surface of the first portion (10) facing towards the roadway (3) has reflector elements (6). 30
28. The cover element (1) according to any of the foregoing claims, **characterised in that** the surface of the first portion (10) facing towards the roadway (3) is stamped with reflective paint areas (7). 35
29. The cover element (1) according to any of the foregoing claims, **characterised in that** it is made mainly from elastic material. 40
30. The cover element (1) according to claim 29, **characterised in that** the elastic material is rubber.
31. A cover module (8) for highway barriers or guardrails, **characterised in that** it comprises at least one cover element (1) according to any of the foregoing claims. 45
32. The cover module (8) according to claim 31, **characterised in that** it comprises at least two cover elements (1) joined to each other. 50
33. The cover module (8) according to claim 31 or 32, **characterised in that** it has a preset length. 55
34. The cover module (8) according to claim 33, **characterised in that** its length is inversely proportional

to the curvature of the guardrail (2) to which the module is applied.

35. The cover module (8) according to claim 33 or 34, **characterised in that** the length of the module is between one and two metres including the ends.
36. A cover for highway barriers or guardrails, **characterised in that** it comprises a plurality of cover modules (8) according to any of the claims from 31 to 35.
37. The cover according to claim 36, **characterised in that** each cover module (8) is removable.

