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(54) **SOFT PAD**

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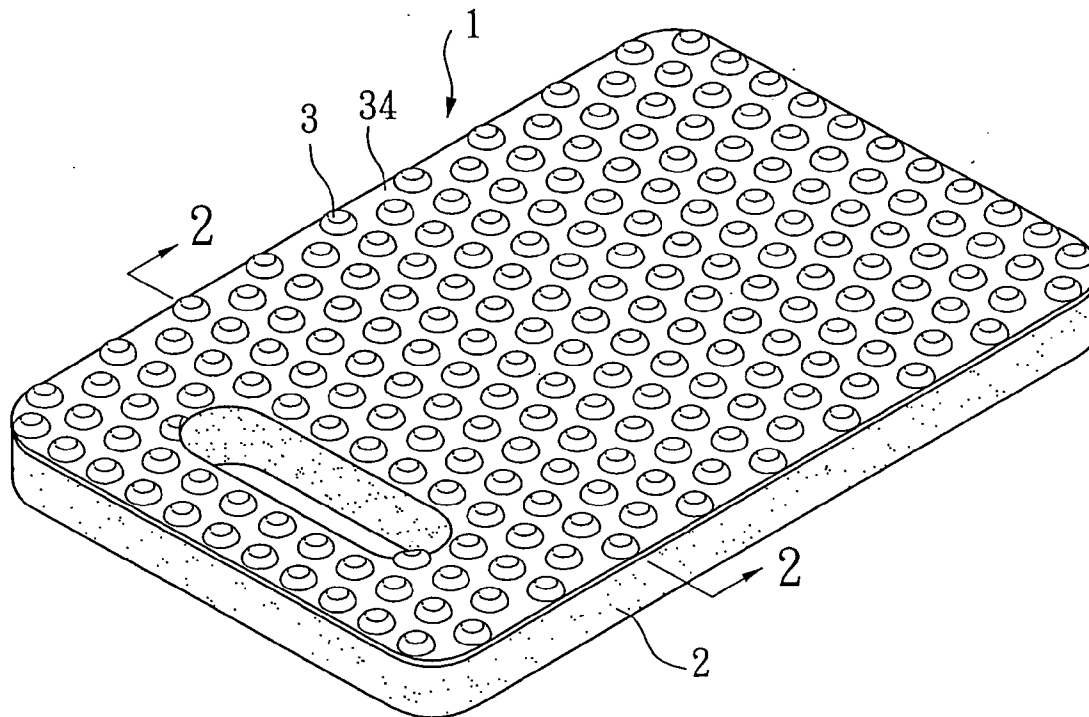
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(57) **ABSTRACT**

A soft pad including a flat soft substrate and a facial unit added to one face of the soft substrate. The facial unit is composed of at least a first and a second plastic membranes which are combined together. The second plastic membrane is attached to the face of the soft substrate. Multiple independent hollow bosses are distributed over the first plastic membrane. Multiple envelope spaces are respectively defined by the bosses and formed between the first and second plastic membranes without communicating with each other.



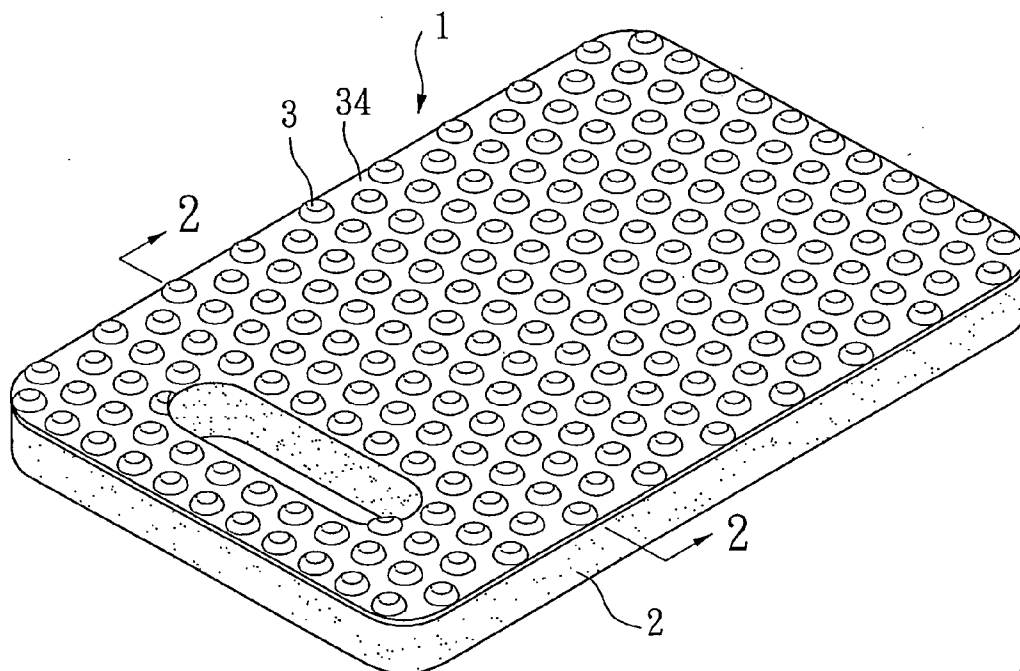


FIG. 1

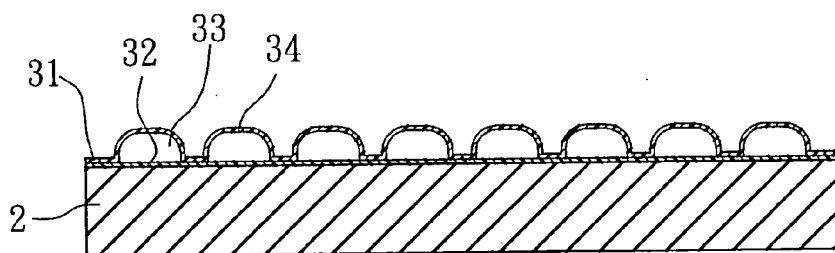


FIG. 2

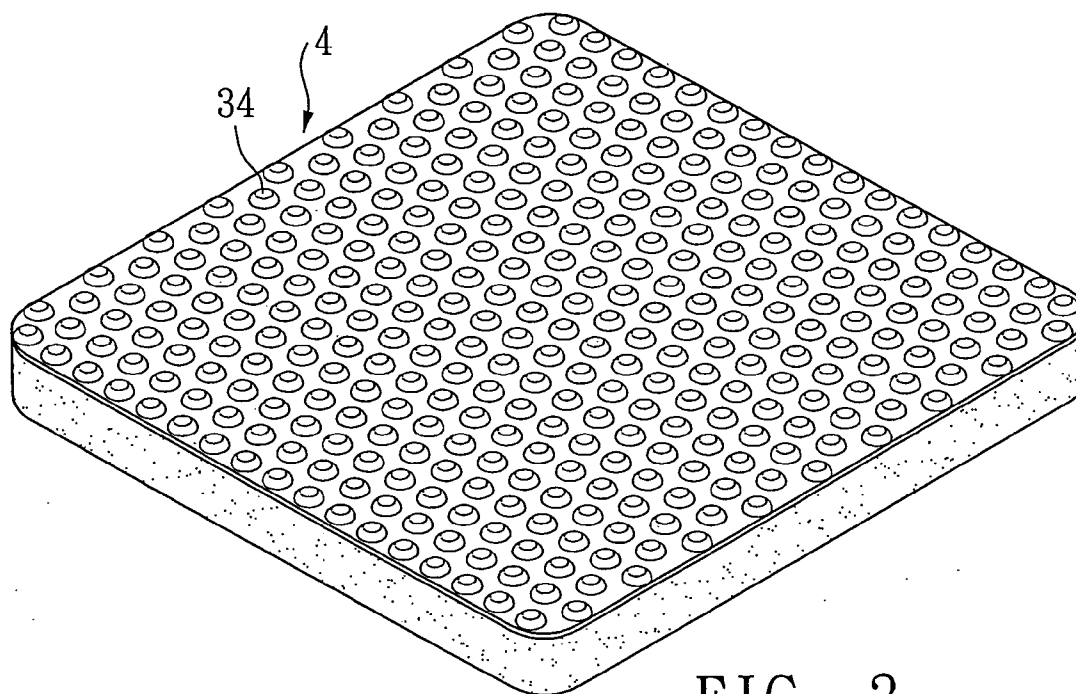


FIG. 3

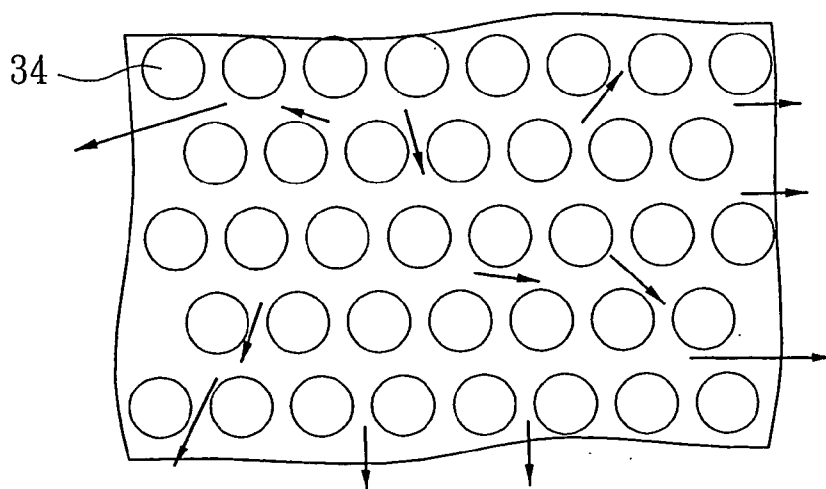


FIG. 4

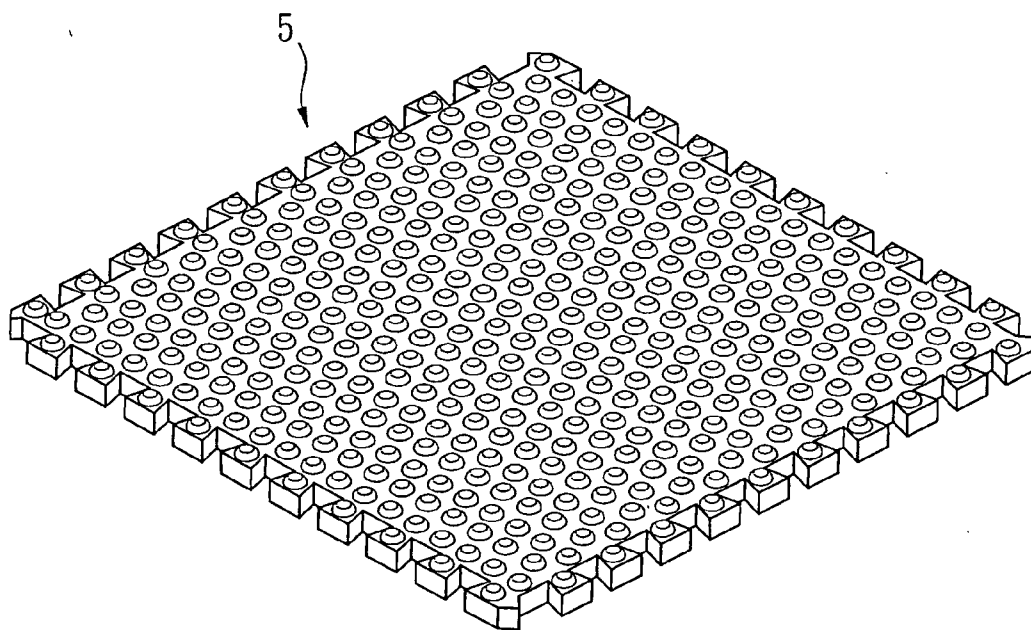


FIG. 5

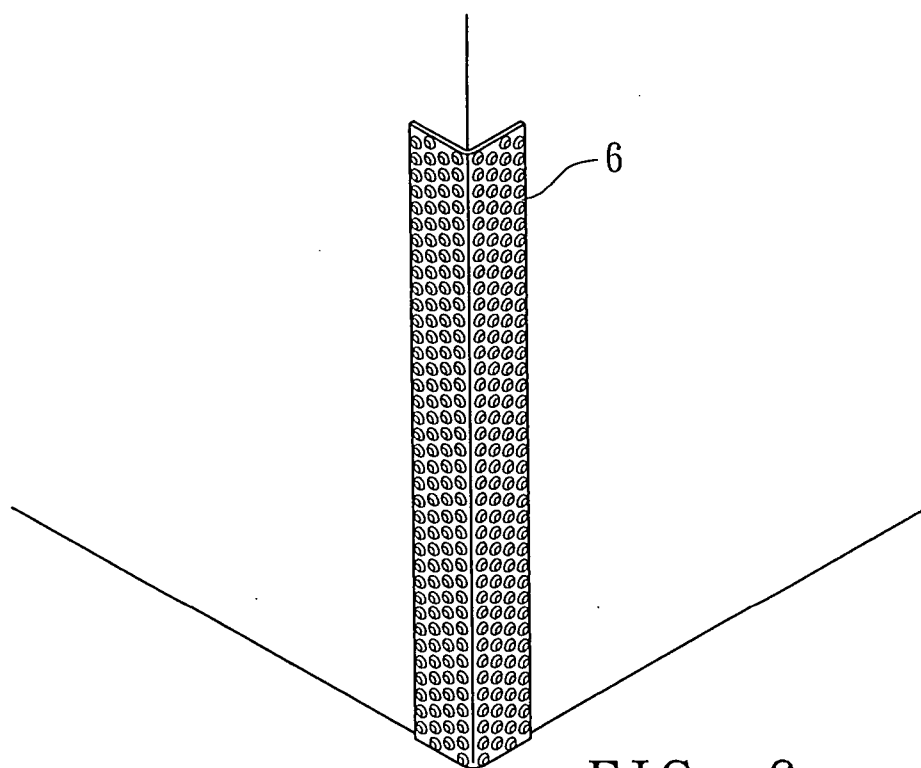


FIG. 6

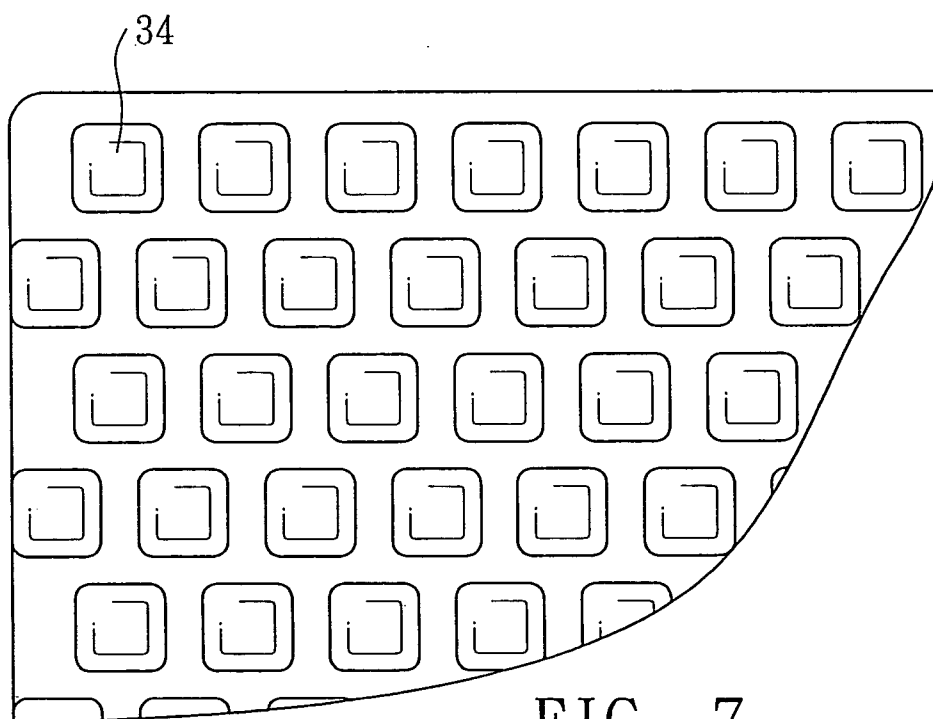


FIG. 7

SOFT PAD

BACKGROUND OF THE INVENTION

[0001] The present invention is related to a soft pad having a facial layer made of plastic membranes. Multiple independent hollow bosses are distributed over the facial layer to define multiple envelope spaces. The hollow bosses provide buffering effect and heatproof effect. Also, the bosses define numerous gaps for achieving a ventilating effect.

[0002] A conventional soft pad is made from foam material and is widely applied to foam rubber floor tile, gardening-used kneepad, outdoor seat mattress and bed mattress, wall anticollision protective cushion, etc. A fabric layer is often adhered to the surface of the soft pad or a decorative picture is transfer printed on the surface of the soft pad. After a period of use, the surface of the soft pad tends to be contaminated by dirt. This leads to poor appearance of the soft pad. It is necessary to wash the soft pad for cleaning up the dirt. This is quite troublesome. Moreover, frequent washing will result in breakage of the fabric layer or peeling of the decorative picture.

[0003] Furthermore, the conventional soft pad has poor heat-radiation effect. Therefore, when contacting with the soft pad, the sweat of a user's body can be hardly quickly drained so that the user often feels uncomfortable.

SUMMARY OF THE INVENTION

[0004] It is therefore a primary object of the present invention to provide a soft pad which can provide buffering effect, heatproof effect and ventilating effect. Also, the soft pad is easy to wash.

[0005] According to the above object, the soft pad of the present invention includes a flat soft substrate and a facial unit added to one face of the soft substrate. The facial unit is composed of at least a first and a second plastic membranes which are combined together. The second plastic membrane is attached to the face of the soft substrate. Multiple independent hollow bosses are distributed over the first plastic membrane. Multiple envelope spaces are respectively defined by the bosses and formed between the first and second plastic membranes without communicating with each other.

[0006] The present invention can be best understood through the following description and accompanying drawings wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a perspective view of an embodiment of the soft pad of the present invention, which is a kneepad;

[0008] FIG. 2 is a sectional view taken along line 2-2 of FIG. 1;

[0009] FIG. 3 is a perspective view of another embodiment of the soft pad of the present invention, which is a seat mattress;

[0010] FIG. 4 shows that the hot gas dissipates from the gaps between the bosses of the soft pad of the present invention;

[0011] FIG. 5 is a perspective view of still another embodiment of soft pad of the present invention, which is a foam rubber floor tile of a knockdown floorboard;

[0012] FIG. 6 is a perspective view of still another embodiment of soft pad of the present invention, which is a wall corner protective cushion; and

[0013] FIG. 7 shows still another embodiment of soft pad of the present invention, in which the bosses of the soft pad are square bosses.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] Please refer to FIGS. 1 and 2. FIG. 1 shows a kneepad 1 of the present invention. FIG. 2 is a sectional view taken along line 2-2 of FIG. 1.

[0015] The kneepad 1 includes a flat soft substrate 2 and a facial unit 3 attached to an upper surface of the soft substrate 2. The facial unit 3 includes a first plastic membrane 31 and a second plastic membrane 32 which are fused together by means of thermal pressing. Multiple independent hollow bosses 34 are distributed over the first plastic membrane 31. Multiple envelope spaces 33 are respectively defined by the bosses 34 and formed between the first and second plastic membranes 31, 32 without communicating with each other. The bosses 34 are compressible.

[0016] When the weight of a user's body is loaded onto the bosses 34 of the kneepad 1, the bosses 34 are respectively compressed to different extents according to the configuration of the human body. Therefore, the knees of a user such as a gardener are buffered and thus the user will feel comfortable when contacting with the kneepad.

[0017] Moreover, the facial unit is made of plastic membranes. In the case that the surfaces of the plastic membranes are contaminated by dirt, a user can easily clean up the kneepad.

[0018] The facial unit of the present invention can be manufactured by various alternative measures. For example, two continuous plastic membrane rolls can be combined to form the envelope spaces. The facial units can be mass-produced at high efficiency and then attached to the soft substrates and then cut according to the profile of the product such as the kneepad. Therefore, the present invention can be made at very low cost. Alternatively, a buffer plastic membrane for packaging articles can be applied to the present invention. Such buffer plastic membrane has compressible bosses on the surface.

[0019] The present invention is applicable to many other products. For example, FIG. 3 shows a seat mattress 4 having numerous bosses 34. The bosses 34 also provide massaging effect. In addition, the bosses 34 are heatproof for keeping a user cool even after having sat for a long time. Besides, the bosses define numerous gaps therebetween for achieving very good ventilating effect. Therefore, the hot gas can easily dissipate from the gaps as shown in FIG. 4 which is a top view of the seat mattress.

[0020] FIG. 5 shows another embodiment of soft pad of the present invention, which is a foam rubber floor tile 5 of a knockdown floorboard.

[0021] FIG. 6 shows still another embodiment of soft pad of the present invention, which is a wall corner protective cushion 6.

[0022] FIG. 7 shows still another embodiment of soft pad of the present invention, in which the bosses 34 of the soft pad are square bosses.

[0023] The above embodiments can be modified as desired. For example, the plastic membrane of the facial unit is printed with decorative stripes or pictures as necessary. In addition, the decorative stripes or pictures can be printed on opposite inner faces of the two plastic membranes. Under such circumstance, the decorative stripes or pictures will not be peeled when washing the soft pad.

[0024] The above embodiments are only used to illustrate the present invention, not intended to limit the scope thereof. Many modifications of the above embodiments can be made without departing from the spirit of the present invention.

What is claimed is:

1. A soft pad comprising a flat soft substrate and a facial unit added to one face of the soft substrate, the facial unit

being composed of at least a first and a second plastic membranes which are combined together, the second plastic membrane being attached to the face of the soft substrate, multiple independent hollow bosses being distributed over the first plastic membrane, whereby multiple envelope spaces are respectively defined by the bosses and formed between the first and second plastic membranes without communicating with each other.

2. The soft pad as claimed in claim 1, wherein at least of the plastic membranes of the facial unit is printed with decorative stripes or pictures.

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