A soft toilet seat with warm water cleaning equipment includes a supporting frame, a toilet seat and a toilet seat device lid, wherein the seat is attached to the front edge of the supporting frame, and the lid is hinged to the supporting frame. The seat has an inner layer formed of hard plastic material, at least a soft pad is provided on the surface of the inner layer, and an outer layer is enclosing both the inner layer and the soft pad in a perfect hermetrical state. The seat has lighting equipment installed at its edge for supplying a tender moody illumination.
SOFT TOILET SEAT WITH WARM WATER CLEANING EQUIPMENT

BACKGROUND OF THE INVENTION

1. Field of the invention
The present invention relates to a soft toilet seat with warm water cleaning equipment, and more particularly, to a soft multi-layered close stool seat which can make the user of the toilet seat device feel comfortable.

2. Description of the Prior Art
Excessively airtight and lack of comfort ability are common shortcomings of a conventional close stool seat. Fabricated with a single material causes the toilet seat insufficient air ventilation. Such a hard and stuffy toilet seat let the user feel very uncomfortable at the thighs and hip when sitting a long time.

In order to improve the manufacturing efficiency and curtail the production cost, and ensure the sustainment strength as well, a common toilet seat is usually molded of a hard plastic material through ejection process, this brings about the aforesaid shortcomings that causes the user to feel his/her thighs and hip uncomfortable or even painful.

Such flaws arise from the manufacturer’s wrong concept of pursuing only convenience for fabrication and curtailment in cost that must be rectified for the benefit of the users.

SUMMARY OF THE INVENTION
It is an object of the present invention to provide a soft toilet seat with warm water cleaning equipment in which at both inner sides of the seat where entrains the user’s body are provided with an elastic soft pad so as to serve the user a comfortable feeling when sitting on the seat.

It is another object of the present invention to provide a soft toilet seat with warm water cleaning equipment in which a lighting equipment is provide along the edge of the seat so as to improve the surrounding mood by light.

To achieve the aforesaid objects, the toilet seat of the present invention comprises a supporting frame and a seat. Wherein the seat is attached to the front edge of the supporting frame and a toilet seat device lid is hinged to the rear side of the supporting frame such that the toilet seat device lid can cover the seat along top surface of the seat.

The seat has a hard plastic inner layer with at least a soft pad formed on the surface of inner layer, and an outer layer enclosing both the inner layer and the soft pad in a completely sealed state.

Lighting equipment is provided at the circumferential fringe of the seat and having a light source in a soft transparent luminaire so as to light the surrounding with a tender brightness.

BRIEF DESCRIPTION OF THE DRAWINGS
FIG. 1 is a perspective, schematic view of the soft toilet seat according to the present invention.
FIG. 2 is a top view of a type 1 soft toilet seat in a first embodiment according to the present invention.
FIG. 3 is a top view of a type 2 soft toilet seat in a first embodiment according to the present invention.
FIGS. 4A and 4B are fractionary enlarged sectional views of FIG. 3 cut along A-A.
FIG. 5 is a fractionary enlarged sectional view of type 1 cut along B-B of FIG. 4.
FIG. 6 is a fractionary enlarged sectional view of type 2 cut along B-B of FIG. 4.
FIG. 7 is a fractionary enlarged sectional view of type 3 cut along B-B of FIG. 4 in a third embodiment.
FIG. 8 is a perspective view of the soft toilet seat closed with the toilet seat device lid in a second embodiment.
FIG. 9 is a fractionary enlarged sectional view cut along C-C of FIG. 8.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1 through FIG. 3, the soft toilet seat with warm water cleaning equipment provided by the present invention in a first embodiment essentially comprises a supporting frame 1, a toilet seat 2, a toilet seat device lid 3, and a remote controller 4, wherein a control equipment and a spraying device for providing warm cleaning water are installed in the supporting frame 1 (both not shown). The seat 2 is attached to the front edge of the supporting frame 1, and the lid 3 is hinged to the supporting frame 1 with its rear side such that the lid 3 is able to cover the seat 2 along its top surface. A soft elastic pad 22 is formed at one side of the seat 2 so as to serve the user of the toilet seat device a comfortable feeling.

Referring to FIG. 4A for further explanation, the seat 2 is composed of an inner layer 21 and an outer layer 23, the surface of the inner layer 21 has at least a soft pad 22 whereas the inner layer 21 and the soft pad 22 are enclosed with the outer layer 23 in a perfect hermetical state. A cavity 211 is gouged out inwardly from the top surface of the inner layer 21 to set the soft pad 22 having the same shape with the cavity 211. The outer layer 23 is essentially an enclosing layer formed of soft or hard plastic material. Furthermore, FIG. 4B is another embodiment of the present invention in which the soft pad 22 can be directly fitted on the inner layer 21.

The soft pad 22 provided in the seat 2 at both sides, is molded with silicon rubber material, or rubber or the like which has resiliency capable of deforming when sustaining the user’s weight on the seat 2. By so, the reactive force exerted to the user from two sides of the seat 2 is alleviated thereby making the user comfortable.

In the second embodiment of the present invention shown in FIG. 8 and FIG. 9, lighting equipment 24 (see FIG. 5) is inlaid in the bottom or side edge of the seat 2 in the manner of flush with, or protruded from upwards the seat 2. The lighting equipment 24 contains a light source 241 enclosed with a soft transparent luminaire 242 (see FIG. 6). The lighting equipment 24 is electrically connected with the control equipment (not shown) in the supporting frame 1. By hermetically enclosing in the soft transparent luminaire 242, a strip type LED, optical fiber or flake type electro luminescence can be used as the light source 241 so as to provide tender illumination thereby importing the mood of the surrounding.

In a third embodiment shown in FIG. 7, the light source 241 is installed at the edge of the inner layer 21 of the seat 2, and then the inner layer 21, soft pad 22 and the light source 241 are hermetically enclosed in the outer layer 23 which being made of a transparent material, semitransparent material or opaque material. Meanwhile, the aforesaid outer layer 23 may be a hermetrical enclosure formed of a material of partially transparent, partially semitransparent, or partially opaque.
The inner layer 21, soft pad 22 and the outer layer 23 are molded of similar or different colored plastic by ejection process.

For increasing variation in practical application, the soft pad 22 may be formed into a single color member or mixed with a heat discoloration material, while the outer layer 23 is made of a semitransparent material. When being completely enclosed by the outer layer 23 the contour and the color of the soft pad 22 can be ambiguously seen from the outer layer 23 at the riding portion. The heating unit (not shown) installed in the seat 2 heats the seat 2 to comfortable warmth after the user has sat a while. The soft pad 22 is also able to change its color in accordance with variation of the temperature thereby improving the visual effect.

It emerges from the description of the above embodiments that the invention has several noteworthy advantages, in particular:

(1) The main sustentation strength is provided by the hard plastic inner layer whose soft pad laid on its surface contributes to even distribution of the user’s body weight on the seat.

(2) The present invention provides a comfortable and healthy toilet seat with warm water cleaning equipment.

Many changes and modifications in the above-described embodiments of the invention can, of course, be carried out without departing from the scope thereof. Accordingly, to promote the progress in science and the useful arts, the invention is disclosed and is intended to be limited only by the scope of the appended claims.

What is claimed is:

1. A soft toilet seat with warm water cleaning equipment, comprising:
   a supporting frame, a toilet seat and a toilet seat device lid, wherein a control equipment and a spraying device for providing warm cleaning water are installed in said supporting frame, said seat is attached to a front edge of said supporting frame, and said lid is hinged to said supporting frame with a rear side thereof such that said lid is able to cover said seat along a top surface thereof, and said seat including an inner layer formed of hard plastic material, at least a soft pad provided on a surface of said inner layer, and an outer layer enclosing said inner layer and said soft pad in a perfect hermetical state.

2. The soft toilet seat of claim 1, wherein a cavity is gouged out inwardly from a top surface of said inner layer to set said soft pad having the same shape with said cavity.

3. The soft toilet seat of claim 2, wherein said light source is a LED, an optical fiber or a flake of electroluminescence.

4. The soft toilet seat of claim 2, wherein said soft pad encloses the cavity of said inner layer with soft rubber, plastic or silicon rubber so as to form said inner layer into a perfectly flat surface.

5. The soft toilet seat of claim 2, wherein said outer layer is a soft enclosure with a defined thickness.

6. The soft toilet seat of claim 2, wherein said inner layer, said soft pad and said outer layer is formed of different colored plastic material with ejection process.

7. The soft toilet seat of claim 2, wherein said inner layer, said soft pad and said outer layer are formed of similar color plastic material with ejection process.

8. The soft toilet seat of claim 2, wherein said outer layer is made of a transparent material.

9. The soft toilet seat of claim 2, wherein said outer layer is made of a semi-transparent material.

10. The soft toilet seat of claim 2, wherein said seat has lighting equipment installed at an edge thereof for supplying a tender moody illumination.

11. The soft toilet seat of claim 10, wherein said lighting equipment contains a light source in a soft transparent luminaire to keep said light source hermetically sealed.

12. The soft toilet seat of claim 11, wherein said light source is a LED, an optical fiber or a flake of electroluminescence.

13. The soft toilet seat of claim 1, wherein said seat has lighting equipment installed at an edge thereof for supplying a tender moody illumination.

14. The soft toilet seat of claim 13, wherein said lighting equipment contains a light source in a soft transparent luminaire to keep said light source hermetically sealed.

15. The soft toilet seat of claim 14, wherein said light source is a LED, an optical fiber or a flake of electroluminescence.

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