SANITARY SINGLE USE TOILET SEAT COVERS

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4 Claims

ABSTRACT OF THE DISCLOSURE

A package of sanitary, disposable seat covers is formed by superimposed seat covers adapted to be secured to the toilet seat. Each seat cover has a tab extending from its outer periphery, which tab is offset from the tabs of the adjacent seat covers, whereby the assembly of seat covers provides an arrangement of staggered tabs to thereby facilitate the gripping of a tab with the fingers.

This invention relates to sanitary, single use, disposable toilet seat covers.

One form of sanitary, disposable seat covers comprises a package or stack of superimposed seat covers, attached to a base member which is secured to the toilet seat. Each cover has a flap or tab projecting from the body of the cover whereby the user may grasp the tab and tear or otherwise remove he seat cover from the stack. The tabs are located at the same relative place of the seat cover, and therefore in a superimposed relation. This superimposed arrangement of the tabs makes it difficult to grasp or fully grasp a single tab for removing the uppermost cover.

The primary object of this invention is to arrange the projecting tabs of the seat covers in such a manner that they are in staggered relation around the outer periphery of the stack of seat covers forming the package. Thus, there is provided a relatively clear space adjacent each tab, whereby the individual tab may be easily grasped with the fingers for removal of the uppermost seat cover.

Another object is to provide a package of disposable seat covers, each cover having a projecting tab which is staggered in relation to the tabs of the adjacent seat covers.

Further objects and advantages will be apparent from the following description and accompanying drawings, wherein:

FIG. 1 is a top view of the package of seat covers secured to the toilet seat, and illustrates the staggered arrangement of the projecting tabs around the outer peripheries of the package;

FIG. 2 is a cross-sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a side view of a portion of the seat cover package of FIG. 1, and illustrates the staggered or stepped relation of the tabs of the stacked seat covers;

FIG. 4 is a perspective view of a seat cover and is folded to show its two faces;

FIG. 5 is a part sectional view of a modified arrangement for securing the package of seat covers to the toilet seat;

FIG. 6 is a side view, and FIG. 7 is a plan view of a modified tab structure; and

FIG. 8 is a side view of another modified tab structure.

FIG. 9 is similar to FIG. 1 and illustrates a modified seat cover for U-shaped or open type toilet seats.

The individual seat cover is illustrated in FIG. 4. Seat cover 1 comprises a sheet of suitable material formed by die cutting, or by some other means, in the general shape of a conventional toilet seat and of sufficient size to cover the top and sides of the seat. While the seat cover may be made of any flexible sheet material, such as various types of paper or plastics, it is preferably made of crepe paper, since crepe paper is soft, flexible, strong and does not cling to the user's body. Seat cover 1 has upper face 2 and lower face 3. A projecting flap or tab 4 extends from the outer periphery of the seat cover. Tab 4 is of a sufficient size to be easily grasped by the user's fingers for removing the cover from its packaged state. Tab 4 may assume various shapes. In order to avoid accidental tears at its junction line to the main body of the valve seat, fillet portions 5 are provided at the ends of the junction line. Seat cover 1 is further provided with a portion 7 which is positioned on the hinge portion of the toilet seat.

Each seat cover has its tab located at a position which is offset from the positions at which the tabs of the adjacent seat covers are located. Using point 8 as a common reference point for each cover, tab 4 on the first seat cover is spaced a certain distance therefrom. The tab 4a (FIG. 1) on the second seat cover is spaced the certain distance plus substantially the width of the tab 4 so that the tabs 4 and 4a are in staggered relation, as illustrated in FIG. 1. The ends of the adjacent tabs may slightly overlap, or be slightly spaced from each other.

The subsequent tabs 4b, etc., are respectively spaced from point 8 so that they form a staggered arrangement with respect to their adjacent tabs.

Each individual seat cover and its tab may be die cut, punched, or otherwise formed from its selected stack material, crepe paper being the preferred material, and then assembled in a package to form a pad or stack of superimposed seat covers with their respective tabs 4, 4a, 4b, 4x, etc., arranged in staggered relation, as illustrated in FIG. 1, wherein the package is shown to be secured to toilet seat 13. The individual seat covers may be assembled in the desired order to form a stack supported by base 10. Base 10 may be made of paperboard, or plastic, or similar flexible inexpensive material. The stack and base 10 are bonded to form a tablet or pad assembly by dipping the edges 11 along portions 7 in a latex, or similar adhesive, which provides sufficient strength to bond seat covers 1 along their edges 11 to maintain a packaged relationship, but permit separation and removal of a seat cover when a reasonable force is applied to its tab.

FIGS. 1 and 2 illustrate the manner in which the package of seat covers is secured to the toilet seat 13. Base 10 is provided with tabs 14 which are of sufficient length to extend under the toilet seat. The extending ends of tabs 4 are provided with conventional type pressure sensitive adhesive coating whereby the ends may be secured to the bottom of the toilet seat to thereby hold base 10 and seat covers 1 secured upon the toilet seat. As disclosed in FIG. 1, a plurality of tabs 14 may be used to secure the seat cover package to the toilet seat. After all the seat covers are used up, tabs 14 may be peeled off seat 13 and base 10 discarded.

FIG. 5 shows a different form of package securing means. Strings 16 are attached to base 10, either by stapling or by other means. The package of seat covers is secured to toilet seat 13 by using strings 16 to tie it to the seat.

To assemble the individual seat covers in the disclosed staggered arrangement, it is not necessary to make each of the seat covers, whose tabs form the staggered arrangement for almost the full circle illustrated in FIG. 1, different, that is, different in the relative location of the tab on its seat cover. The number of seat covers having a differently located tab 4 may be greatly reduced by the following assembly procedure. Covers with tabs 4, 4a, etc., to tab 4x, are stacked with face 2 up. These seat covers are shown with their tabs extending to the left in...
FIG. 1. The seat covers with their tabs extending to the right in FIG. 1, that is, the tabs past tab 4x (taken anticlockwise) are assembled with their faces 3 up. Since the seat covers are symmetrical with respect to their longitudinal axes, the above shift of faces merely requires turning the respective seat covers, such as cover 1 of FIG. 4, 190° so that face 3 is on top. FIG. 1 shows the cover having right extending tab 4 placed in the package with face 3 up.

FIGS. 1 to 4 illustrate tabs 4 integral with the main body of the seat cover. The tabs may be separate elements bonded to the body of the seat cover. FIGS. 6 and 7 disclose a separate tab 18, in the form of a folded strip or of suitable material, secured as by adhesive to both faces of seat cover 1.

FIG. 8 shows a seat cover 1 to which a tab element 19 is secured to one face only, such as face 3. The package may consist of several sets of seat covers, each set comprising the number of seat covers whose tabs form the almost full circle of staggered tabs. Thus, while the package may have tabs located above each other, there is provided a space equal to the thickness of the set for the easy insertion of a finger below the tab to grip the same.

A receptacle which can be packaged with the seat cover unit may be placed in the bath room for temporary storage of used, detached seat covers. These seat covers should not be flushed in accordance with community sanitation regulations which are designed to mitigate urban pollution.

It is within the scope of the invention to employ crepe paper which has special dispersible characteristics to aid in flushing the seat cover down the toilet and this type of paper is shown in George et al., U.S. Pat. No. 3,407,814.

A color scheme may be added to indicate that the pad is depleted. The last seat cover may be colored red or printed to indicate that a new unit is to be attached to the toilet seat.

A germicide may be incorporated in the creping adhesive and the crepe paper may include other materials, such as perfumes, pigments for coloration, brighteners to improve the whiteness of non-colored areas. The bactericides and germicides may include hexachlorophenes, trichloro-carbanilides, halosalicyl-halosanilides, organic mercurials, phenols, cresols, etc. The brighteners may include fluorescent and phosphorescent agents. The zinc cadmium sulfide pigments which are fluorescent may be used as brighteners or inorganocarbines may be used for this purpose. Dyes and coloring agents may be employed to produce any desired color or pattern of colors which aid in identifying used covers.

An acid-base color indicator may be utilized which will show, by color change, that the seat cover unit has been touched by human skin which excretes acidic perspiration. Examples of such acid-base indicators with color change to indicate perspiration are bromothymol blue, anisolestilbophenamine, brilliant yellow, neutral red and phenol red. All of these acid-base indicators change color between pH of about 6.0 to about 8.0. The selection of indicator is a matter of choice depending upon the signaling color which is desired as an indicator of secretion from human skin and it is possible to employ these indicators in neutral non-coloring binders, such as neutralized buffered gelatin or it is possible to employ these indicators in micro-encapsulated form in a manner known to the art and taught by Green, the inventor of microencapsulation.

It is obvious that while cover 1 is shown for a closed toilet seat, the disclosed invention can be utilized with the U-shaped or open toilet seat, by eliminating the front portion of the cover, to thereby convert it into a U-type or open seat cover. The staggered arrangement of the tabs may be applied to any type or shaped toilet seat, since the specific shape of the toilet seat has no special connection with the tab staggering principle.

FIG. 9 illustrates the application of this invention to an open toilet seat. Seat cover 1 is formed as a U-shaped cover with the end opposite hinge portion 7 open. The tabs are staggered along the periphery of the assembly, as in FIG. 1, except that no tabs are present at the open end.

Although certain preferred embodiments of the invention have been disclosed for purposes of illustration, it will be evident that various changes and modifications may be made therein without departing from the scope and spirit of the invention.

I claim:

1. A packaged disposable seat cover assembly for attachment to a toilet seat comprising a stack of superimposed seat covers, a projecting tab extending from the outer periphery of each seat cover and located at a point which is differentially spaced on each seat cover from a common reference point, thereby spacing each tab along the outer periphery of the stack in a staggered relation to its adjacent tabs, securing means in said stack to hold the individual seat covers in their staggered tab relation to thereby form a pad of seat covers, and each seat cover being coated with an acid-base indicator which changes color when the seat cover has been touched by human skin which excretes acidic perspiration.

2. A packaged disposable seat cover assembly as claimed in claim 1, wherein each seat cover is coated with a germicide.

3. A packaged disposable seat cover assembly as claimed in claim 1, wherein said seat covers are formed of paper which is dispersible in water after use and can be flushed down the toilet.

4. A packaged disposable seat cover assembly as claimed in claim 1, wherein the last and bottom seat cover of the unit is provided with indica indicating that the unit is depleted and that a new unit is to be attached to the toilet seat.

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