FOAM TOILET SEAT COVER

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Abstract

The foam toilet seat cover is a reusable cover used to shield a person from contamination present on a toilet seat. The seat cover is made of a foamed material. The upper and lower surfaces of the seat cover are sealed to prevent the absorption of contamination into the foamed material. In use, the lower surface of the cover is deposed on the surface of a toilet seat. An annular opening in the seat cover allows access to the bowl of the toilet through the seat cover. The lower surface has an anti-slip pattern to keep the seat cover in position on the toilet seat. The upper surface has an identifying marking so enabling the user to consistently discriminate between the upper and lower surfaces of the cover. The toilet seat cover is made of a cleanable material resistant to cleaning agents used to sanitize the cover.
FOAM TOILET SEAT COVER

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 60/741,548, filed Dec. 2, 2005.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a personal sanitary devices and more particularly to covers for use over a toilet seat.

[0004] 2. Description of the Related Art

[0005] Public restroom facilities present an environment in which people may be exposed to contamination that may be hazardous to public health. People using the facilities in public restrooms may deposit biological contaminants while using the facilities. Personnel using the facilities may be carrying contaminating materials from the workplace including hazardous chemical agents or other foreign materials. If persons using the facilities are carrying harmful pathogens, these materials may also be deposited on surfaces within the public restroom. When one person deposits a contaminant on a surface, any number of users passing through the surface following the first person may be exposed to the contaminant upon contacting the surface.

[0006] Toilet seats present a particularly focal point for collecting contaminants and transferring those contaminants to others. Unprotected persons using toilet seats may intimate contact with seat, exposing their skin directly to contaminants deposited on the toilet seat by any number of past users. To prevent the spread of contamination, it is known to interpose a sanitary cover between a person’s body and the toilet seat to prevent contact with the toilet seat while using the facilities. The use of protective covers reduces the potential for depositing contaminants on the seat and reduces the risk that deposited contaminants (if any) will be picked up by another person.

[0007] One form of toilet seat cover is a disposable paper seat cover. In a typical construction, a disposable seat cover comprises a paper sheet with a central opening. The paper cover is disposed on surface of a toilet seat. The disposable seat cover is a sub-optimal solution because the cover is not securely attached to the seat and may become displaced when a person attempts to sit on the covered toilet seat. The paper provides questionable protection from liquid contaminants on the toilet seat because the liquids may soak through the paper to contact the skin of the user. The paper seat covers cannot be cleaned, but must be discarded after a single use. The disposal of used covers must be planned to avoid the creation of a contamination hazard. Disposal of the used covers may create an undesirable impact on the environment by consuming landfill space.

[0008] Reusable seat covers may be made of non-absorbent materials and thus provide an effective barrier to liquid born contamination. However, since a surface of the seat cover will be in contact with the toilet seat, the toilet seat cover will presumably be contaminated after each use. It may be impractical to clean the seat cover after a use in a public facility, and it would be preferable if the contaminated seat cover could be safely handled until a more convenient time and place for cleaning the seat cover was presented. Ideally the surfaces of the toilet seat cover should be easy to clean such as by a simple wiping.

[0009] Small children often find it necessary to grip the sides of the toilet seat in order to maintain their balance while seated on the toilet. Conventional seat covers do not provide an effective protective barrier to contamination for the sides of the toilet seat.

[0010] German patent document DE 4 218 332 A1, published on Dec. 9, 1993 describes a toilet seat cover made of a foamed material with a flexible insert. The seat cover may be distinguished from the current seat cover by structural difference including the lack of non-skid upper or lower surfaces and the reliance on suction cups to fix the seat cover in place on the toilet seat.

[0011] Thus a foam toilet seat cover solving the aforementioned problems is desired.

SUMMARY OF THE INVENTION

[0012] The foam toilet seat cover is a reusable cover adapted to shield a person from contamination present on a toilet seat. The seat cover is made of a foamed material. The upper and lower surfaces of the seat cover are sealed to prevent the absorption of contamination into the foamed material. In use, the lower surface of the cover is deposited on the surface of a toilet seat. An annular opening in the seat cover allows access to the bowl of the toilet through the seat cover. The lower surface has an anti-slip pattern to keep the seat cover in position on the toilet seat. The upper surface has an identifying marking enabling the user to consistently discriminate between the upper and lower surfaces of the cover. The toilet seat cover is made of a cleaner material resistant to cleaning agents used to sanitize the cover.

[0013] The foamed toilet seat cover is foldable into a compact arrangement. In the folded arrangement, the lower surface of the seat cover is folded into the interior of the arrangement reducing the risk of transfer of contamination from the surface that directly contacts the toilet seat.

[0014] A storage clutch may be provided for transporting the seat cover. The storage clutch is made of a washable material. The clutch includes a pocket for holding the seat cover. The upper portion of the clutch includes a flap that can be folded to cover the opening of the pocket. A fastening means such as a hook-and-loop fastening system may be provided to hold the clutch flap in place over the pocket opening.

[0015] These and other features of the present invention will become readily apparent upon further review of the following specification and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is an environmental side perspective view of toilet employing toilet seat cover.

[0017] FIG. 2 is a top view of toilet seat cover with fused perimeter edges.

[0018] FIG. 3 is a side view of toilet seat cover.
FIG. 4 is a top view of toilet seat cover with faceted opening.

FIG. 5A is a front view of a singly folded toilet seat cover.

FIG. 5B is a front view of a doubly folded toilet seat cover.

FIG. 5C is a front view of a fully folded toilet seat cover.

FIG. 6 is a front view of a storage clutch for the toilet seat cover.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is a reusable toilet seat cover. Referring to FIG. 1, the seat cover 20 is shown placed on the toilet seat 42 of a toilet 40. The seat cover 20 is sufficiently wide enough to overlap the periphery of the toilet seat. Because the seat cover 20 is made of a flexible material, a user sitting on the toilet seat may grip the sides of portion of the cover overlapping the sides of the seat, forming the seat cover 20 around the toilet seat. While gripping the cover 20 in the described fashion, the cover 20 will be interposed between the user's hands and the surface of the toilet seat 42, insulating the user's hands from direct contact with the toilet seat 42. The seat cover provides an effective overlap of approximately several inches on each side of the toilet seat for protecting the hands of a user.

Referring now to FIGS. 2 and 3, additional details of the seat cover 20 are described. The seat cover is made of a flexible, resilient material such as a foamed polymeric material. Preferably a material such as foamed polyvinyl chloride (PVC), rubber or neoprene is used. The chosen material is preferably resistant or inert to one or more cleaning agents usable to sterilize the surfaces of the seat cover 20. For example, a material resistant to dilute chlorine based bleach solutions may be chosen.

The toilet seat cover 20 comprises an upper surface 24 and a lower surface 34. In use, the lower surface 34 is in contact with and covers the upper surface of the toilet seat, while the user sits on the upper surface 24 of the cover 20. The upper and lower surfaces are fused to close the pores or cells of the foamed material of the seat cover. The upper surface 24 provides friction between the skin of the posterior of the user and the seat cover 20 to reduce the tendency for the user to slide off of the seat cover 20 when seated. The friction generated by the upper surface 24 may be enhanced by a ribbed tread pattern deposed on the lower surface of the seat cover 20. Preferably the tread pattern is shallow allowing the lower surface 34 to be easily cleaned by wiping.

The seat cover 20 further comprises an opening 22 communicating between the upper and lower surfaces of the seat cover. As may be best appreciated from FIG. 1, the seat cover opening 22 is, smaller than the opening in the toilet seat so that the annulus of the toilet seat is completely covered by the material of the seat cover 20. The opening 22 is sufficiently large to allow the user access to the bowl 44 of the toilet without risking contamination of the upper surface 24 of the seat cover 20.

Returning to FIGS. 2 and 3, it is appreciated that the seat cover 20 further comprises a peripheral edge 26 around the perimeter of the seat cover 20, and an opening edge 28 around the perimeter of the cover opening 22. For a seat cover 20 made from a foamed material, an exposed cut peripheral edge 26 or opening edge 28 would provide sites for the absorption of contaminants into the open cells or pores of the foamed material. Once absorbed into the foamed material, the contaminants would be difficult or impossible to remove from the seat cover 20. Features of the seat cover intended to prevent the absorption of contaminants are described with reference to FIGS. 3, and 4.

Referring first to FIG. 3, the peripheral edge 26 is compressed to present a very small cross section and sealed. For foamed seat covers made of foamed PVC material the sealing may be accomplished by a heated press treatment of the peripheral edge 26. After treating, the edge is sealed and presents a very small cross section for absorption into the cross section of the cover. An identical treatment is performed on the perimeter of the opening edge 28, to form a sealed edge resistant to the adsorption of contaminants at the opening edge site.

Referring now to FIG. 4, an alternate treatment for the peripheral edge 26, and the opening edge 28 is described. The edges are protected by covering them with an absorption resistant material such as vinyl or other polymeric material. The edge protecting material is attached to the seat cover 20 by any permanent means such as stitching or the use of a suitable adhesive. Preferably the edge protecting material is physically durable, cleanable by wiping, and is resistant or inert to agents used for cleaning the seat cover.

Preferably the cover comprises an identification means allowing the upper and lower surfaces to be identified so that when the seat cover 20 is placed on the seat 42 of a toilet 40 as shown in FIG. 1, the lower surface is consistently deployed against the seat 42, while upper surface is consistently used deployed for contact with the user. Using the upper and lower surfaces of the seat cover in a consistent matter avoids the transfer of contaminants from a user to the toilet seat or from the toilet seat 42 to a user.

As appreciated in FIG. 4, the upper surface 24 of the seat cover 20 may be provided with an identifying marking 32 specifying the surface as the upper surface. The illustrated identifying marking comprises the word “TOP” inscribed on the upper surface of the seat cover. Any suitable marking identifying either the upper or lower surface may be used. For example the upper surface may be provided with pictures, graphics, or other markings identifying the upper surface as the surface intended to be viewed when the seat cover 20 is in use.
Preferably the seat cover is made of a foldable material. As may be appreciated by referring to FIGS. 2 and 4 the seat cover 20 may be pre-creased along a crease line 30 dividing the seat cover surface approximately in half. The crease line is in a direction favoring the folding of the seat cover with the lower surface of the seat cover interior to the fold, so that the lower and most likely to be contaminated surface is substantially inaccessible when the seat cover is folded.

As may be appreciated by referring to FIGS. 5A, 5B, and 5C, the seat cover may be folded into a compact arrangement. Preferably, in the contact arrangement, the lower surface of the mat is positioned in the interior of the folded arrangement as in use the lower surface would be more apt to be contaminated with material foreign to the user. As shown in FIG. 5A, a first fold is made along the crease line 30 shown in FIG. 4 in making the fold the upper and lower edges of the lower surface are overlaid containing the lower surface substantially within the folded arrangement.

As show in FIG. 5B, the seat cover 20 may be folded a second time, along an axis perpendicular to that of the first fold. As shown in FIG. 5C, the seat cover 20 may be folded a third time resulting in a compact wedge shaped arrangement with the lower surface contained substantially within the interior of the folded arrangement.

A clutch adapted for storing the seat cover will be described by referring to FIG. 6. The clutch is preferably made of a durable and cleanable material such as vinyl or other a cleanable, thin polymeric material. The clutch 50 comprises a pocket 54 open at the top for containing the seat cover in the folded arrangement illustrated in FIG. 5B. An upper portion of the clutch comprises a flap that may be folded down over the pocket opening to close the clutch. Mating fasteners 52 are provided on the upper and lower portions of the clutch to hold the clutch closed. The fastening means 52 may comprise a hook-and-loop fastening system, buttons and buttonholes, snaps and snap receptacles, or other appropriate fasteners as will be appreciated by those skilled in the art.

A particular foamed seat cover in accordance with the invention is adapted to fit on an annular shaped toilet seat cover approximately 14 inches wide by 17 inches long. The seat cover may have a width of approximately 19 inches along two or more inches of overlap of the seat cover over each side of the toilet seat. The overlap provides a surface for a seated user to grip the sides of the cover without contacting a potentially contaminated surface of the toilet seat. The length of the cover is approximately 17 inches allowing the seat cover to complete cover the surface of the toilet seat. The annular opening in the seat cover may be oval or have a polygonal shape. The opening may be approximately 10 or 11 inches long and 7-1/2 inches wide. The dimension of the opening are preferably less than the dimension of the opening in the toilet set so that no surface of the seat is exposed to contact when the cover is in place. The dimensions are provided for enablement purposes only and do not limit the invention to the described sizes and dimensions.

It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the scope of the following claims.