

RECLOSABLE PACKAGES FOR CONTACT LENSES

FIELD

【 0001 】 The present disclosure is generally related to packages, particularly related to packages for containing contact lenses which are able to be reclosed.

BACKGROUND

【 0002 】 Contact lenses are thin lenses to be placed directly in touch with the user's eyes for correcting their visions. Unlike other products, each contact lens should be packaged by a primary level of packaging in a sterilized manner to prevent such lenses from being contaminated before contacting the user's eyes. Further, one contact lens is in use for relatively a short period of time, for example, one day, and the primary level of packaging is usually designed as a single use and disposable package. As the contact lenses are available on the market, the users tend to buy multiple contact lenses at once, such that they may replace and wear such products for a longer duration.

【 0003 】 Usually, secondary level of packaging is provided for packing a plurality of contact lenses for sale. Conventionally, the secondary level of packaging is a simple rectangular box which cannot be easily opened or reclosed by the users. When the rectangular box is being reclosed, the users cannot easily distinguish the new ones, which have not been opened yet, from those which are opened and reclosed. As such, the users might feel insecure even though the contact lenses are wrapped by their individual own primary package.

【 0004 】 Moreover, by using the conventional rectangular box, the users cannot easily recognize how many contact lenses are left within the package. As a result, the users might have difficulties organizing the contents within the package.

【 0005 】 On the other hand, some conventional secondary level of packaging is also designed to be a single use container. These types of packages are not convenient for the users when they intend to bring several contact lenses while traveling. Further, once the package is opened, the contents will easily fall out as such package cannot be reclosed and reused again.

【 0006 】 Therefore, there is a need to provide an improved secondary level of packaging for the contact lenses which is convenient and secured to the users.

SUMMARY

【 0007 】 In view of the technical problems stated above, the present disclosure is aimed at providing solutions that are advantageous over the conventional techniques.

【 0008 】 In one aspect, a package for contact lenses, includes a body with a main portion, a bottom portion, and walls connecting the main portion and the bottom portion, wherein the main portion, the bottom portion, and walls form an inner volume within the body and an opening for accessing the inner volume of the body; a cover including a lid portion with a first edge fully connected to the bottom portion of the body and a second edge opposing the first edge, wherein the lid portion of the cover extends from the bottom portion of the body, over the opening, to the main portion of the body upon which it lies when closed; at least one tab disposed on or affixed to the second edge of the lid portion; and at least one removable section connected between the lid portion of the cover and the main portion of the body such that after its removal or in its absence the lid portion would be able to open and expose the inner volume of the body; wherein each of the at least one tab of the cover matches a corresponding groove formed on the main portion of the body, such that the inner volume of the body can be substantially

resealed after removing the at least one removable section by fitting each of the at least one tab of the cover into the corresponding groove.

【 0009 】 In another aspect, a package for contact lenses, includes a body with a main portion, a bottom portion, and walls connecting the main portion and the bottom portion, wherein the main portion, the bottom portion, and walls form an inner volume within the body and an opening for accessing the inner volume of the body; a cover including a lid portion with a first edge fully connected to the bottom portion of the body and a second edge opposing the first edge, wherein the lid portion of the cover extends from the bottom portion of the body, over the opening, to the main portion of the body upon which it lies when closed; at least one removable section connected between the lid portion of the cover and the main portion of the body such that after its removal or in its absence the lid portion would be able to open and expose the inner volume of the body; and wherein the lid portion of the cover includes at least one attaching element for substantially resealing the inner volume of the body after removal of the at least one removable section.

【 0010 】 The above and other aspects of the present disclosure are described in more details in the following contexts. It is to be understood that both the foregoing summary and the following detailed description are exemplary and are intended to provide further explanation of the disclosed subject matter as claimed. Other features, objects, and advantages of the present invention will be apparent from the description, the accompanying drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

【 0011 】 So that the manner in which the above described features of the present disclosure can be understood, a more specific description of the disclosure,

briefly summarized above, may be had by reference to embodiments, some of which are illustrated in the appended drawings. However, the appended drawings illustrate only exemplary embodiments of this disclosure. It is to be understood that the disclosure may admit to other equally effective embodiments, and therefore the appended drawings should not be considered as limiting the scope of the present disclosure.

【 0012 】 Fig. 1 illustrates a schematic perspective view of a reclosable package according to an embodiment of the present disclosure.

【 0013 】 Fig. 2 illustrates the reclosable package of Fig. 1 in the opened state.

【 0014 】 Fig. 3 illustrates the reclosable package of Fig. 1 being resealed by fitting a tab into a corresponding groove.

【 0015 】 Fig. 4 illustrates a schematic perspective view of a reclosable package in the opened state according to another embodiment of the present disclosure.

【 0016 】 To facilitate understanding, identical reference numerals have been used, where possible, to designate identical elements that are common in the figures. For the sake of clarity, the various embodiments shown in the figures are not necessarily drawn to scale and are illustrative representations.

DETAILED DESCRIPTION

【 0017 】 Now the embodiments of the present disclosure will be described in details with reference to the drawings.

【 0018 】 Fig. 1 illustrates a schematic perspective view of a reclosable package 100 according to an embodiment of the present disclosure, and Fig. 2 illustrates the reclosable package of Fig. 1 in the opened state. The reclosable package 100 as shown can be used as a secondary level of packaging for contact lenses.

【 0019 】 With reference to both Figs. 1 and 2, the reclosable package 100 includes a body 102 with a main portion 104, a bottom portion 106, and walls 108 connecting the main portion 104 and the bottom portion 106. In some embodiments, the body 102 is rigid to prevent the contact lenses contained therein from breakage during transporting. The main portion 104, the bottom portion 106, as well as the walls 108 enclose an inner volume 110, in which one or more contact lenses or other contents can be received.

【 0020 】 In the embodiment as shown, the walls 108 are connected to the main portion 104 by an angle of about 90 degrees. However, in other embodiments, one or more of the main portion 104, the bottom portion 106, and the walls 108 may be curved and connected by an angle different from 90 degrees. Further, although the body 102 and the inner volume 110 are shown with a rectangular shape in Figs. 1 and 2, it should be noted that other shapes, such as triangular or rounded shapes, are also contemplated. In some embodiments, the inner volume 110 of the package 100 may even have a different shape from the body 102 by the configurations of the walls 108.

【 0021 】 In some embodiment, the rectangular shape of the body 102 has a size of about 30 mm to 200 mm in length, about 30 mm to 200 mm in width, and about 8 mm to 60 mm in depth. For example, the body 102 may have a length of about 60 mm to 150 mm, a width of about 60 mm to 150 mm, and a depth of about 15 mm to 45 mm. In one embodiment, the size of the body 102 is designed to be about 133 mm in length and width, and about 13 mm in depth. The inner volume 110 of the package 100 is able to contain at least 2 contact lenses, with each contact lens packaged in its own primary packaging. In one embodiment, the inner volume 110 of the package 100 is designed contain up to 90 contact lenses. In other embodiments, the inner volume 110 of the package 100 may be able to contain

about 5, 10, 20, 30, 45, or 60 contact lenses, with each contact lens packaged in its own primary packaging. In some embodiments, the package 100 is shaped to be fit into a mailbox of the user, such that the packaged plurality of contact lenses can be shipped and delivered through mail.

【 0022 】 The reclosable package 100 shown in Fig. 1 is a brand new package which has not been opened by any user. In the embodiment as shown, a removable section 112 is disposed between the main portion 104 of the body 102 and a cover 114 to tightly seal the inner volume 110 of the package 100. In some embodiments, the removable section 112 may have a different color, surface effect, texture, or finish from the main portion 104 of the body 102 and the cover 114. In some embodiments, the removable section 112 can be formed by different material from the main portion 104 of the body 102 and the cover 114.

【 0023 】 In one embodiment, the removable section 112 is a strip which can be easily peeled off by a user. Further, the strip may have perforated edges 120 being connected to the main portion 104 of the body 102 and the cover 114 to facilitate directing the directions to be peeled off by the user. In some embodiments, the strip may be disposed across the middle of the main portion 104, and have a width ranged between about 10 mm and about 35 mm, such that the strip can be easily located and peeled off by the user's fingers.

【 0024 】 With closer reference to Fig. 2, the reclosable package 100 is shown in an opened state with the removable section 112 being removed. In comparison with Fig. 1, it can be seen that the removable section 112 as well as a portion of the cover 114 overlap an area 122 of the main portion when the package 100 is being tightly sealed. As the removable section 112 is removed by the user, the area 122 of the main portion 104 is exposed and the cover 114 is lifted providing an opening for the user to access the inner volume 110 of the body 102. In the embodiment as

shown in Fig. 2, an indent is formed at the top of the area 122 of the main portion 104 adjacent to the opening, such that the user can easily identify or access the contents within the inner volume 110 of the body 102. In some embodiments, the area 122 to be exposed after removing the removable section 112 is made by different material from the package 100. In some embodiments, such area 122 may have a different color, surface effect, texture, or finish from the rest of main portion 104 or the removable section 112.

【 0025 】 The cover 114 of the package 100 may include a lid portion 116 with a first edge 124 fully connected to the bottom portion 106 of the body 102 and a second edge 126 opposing the first edge 124. In the embodiment shown in Fig. 2, at least one tab 118 is disposed on or affixed to the second edge 126 of the lid portion 116 to facilitate handling of the cover 114 when being opened by the user. Further, a groove 128 with a similar or corresponding shape to the at least one tab 118 can be disposed in the area 122 of the main portion 104. As such, the package 100 can be reclosed by fitting the at least one tab 118 into the groove 128, which will be described in more details with reference to Fig. 3.

【 0026 】 Fig. 3 illustrates the reclosable package 100 of Fig. 1, which is resealed by fitting the at least one tab 118 into the groove 128. As can be seen, although the cover 114 is resealed by overlapping the area 122 of the main portion 104, in the absence of the removable section 112, still a portion of the area 122 will be exposed. In the embodiments where either the removable section 112 or the area 122 has a different color, surface effect, texture, or finish, the user may easily identify whether the package 100 is brand new or has been opened and resealed again.

【 0027 】 The at least one tab 118 may extend from the second edge 126 of the lid portion 116 by about 2 mm to 5 mm. As such, the package 100 can be substantially resealed and is portable with anything contained within the inner

volume 110. In the embodiment as shown, the package 100 is substantially resealed by fitting the at least one tab 118 into the groove 128. However, in other embodiments, the package 100 can be resealed by fitting either the cover 114 or the at least one tab 118 into an indent, a cutout or the opening formed adjacent the main portion 104 of the body 102.

【 0028 】 In some embodiments, the package 100 can be made from art paper, corrugated paper, cardboard, plastic, laminate, cloth, plant fiber, metal, synthetic material, or any other suitable materials for containing contact lenses. In some embodiments, the package 100 is integrally formed by a material in one piece. In other embodiments, either the removable section 112 or at least a part of the main portion 104 is made from different materials from the body 102 or the cover 114.

【 0029 】 In some additional embodiments, the package 100 may have one or more segments or layers (not shown) disposed within the inner volume 110, so as to form multiple compartments. As such, the users can organize the spaces within the package 100 as desired.

【 0030 】 Fig. 4 illustrates a schematic perspective view of a reclosable package 400 in the opened state according to another embodiment of the present disclosure. In the embodiment as shown, the removable section (not shown) which has been peeled off may be a strip with a curved shape, and can extend from the main portion 404 to other sides of the package. Consequently, the area 422 including the main portion 404 and the side wall will be exposed in the absence of the removable section. In some other embodiments, the removable section may be angled, tapered, in a wave or zig-zag shape. Further, rather than extending across the main portion from wall to wall, the cover 414 and the opening can be disposed at one corner of the package 400.

【 0031 】 With reference to Fig. 4, at least one attaching element 432 is disposed adjacent an edge of the cover 414, and can be attached to a corresponding element 434 disposed on the main portion 404 of the package 400. As such, instead of the tab and groove closure, the package 400 can be reclosed by the attaching element 432. At least a portion of the area 422 remains exposed when the package 400 is reclosed. Further, the area 422 may have a different color, surface effect, texture, or finish. Therefore, the user may see the exposed area 422 from different directions and easily identify whether the package 400 is brand new or has been opened and resealed again.

【 0032 】 In one embodiment, the attaching element 432 and the corresponding element may be a Velcro. In other embodiments, the attaching element 432 may be one of an adhesive, a magnet, a clamp, or any other mechanism which is suitable for reclosing the package 400.

【 0033 】 Exemplary embodiments of the present disclosure have been described with reference to the drawings. It should be noted that the features described with respect to one embodiment can be advantageously applied to other embodiments unless being expressively limited. Further, it will be apparent to those skilled in the art that various modifications and alterations can be made to the present disclosure without departing from the scope and spirit as defined by the appended claims.

CLAIMS

What is claimed is:

1. A package for contact lenses, comprising:

a body including a main portion, a bottom portion, and walls connecting the main portion and the bottom portion, wherein the main portion, the bottom portion, and walls form an inner volume within the body and an opening for accessing the inner volume of the body;

a cover including a lid portion with a first edge fully connected to the bottom portion of the body and a second edge opposing the first edge, wherein the lid portion of the cover extends from the bottom portion of the body, over the opening, to the main portion of the body upon which it lies when closed;

at least one tab disposed on or affixed to the second edge of the lid portion; and

at least one removable section connected between the lid portion of the cover and the main portion of the body such that after its removal or in its absence the lid portion would be able to open and expose the inner volume of the body;

wherein each of the at least one tab of the cover matches a corresponding groove formed on the main portion of the body, such that the inner volume of the body can be substantially resealed after removing the at least one removable section by fitting each of the at least one tab of the cover into the corresponding groove.

2. The package of Claim 1, wherein the at least one removable section is a strip connected between the lid portion of the cover and any of the main portion of the body, one of the walls of the body, or the bottom portion of the body.

3. The package of Claim 2, wherein the strip has perforated edges being connected to the lid portion of the cover and the main portion of the body.

4. The package of Claim 2, wherein the strip has a width ranged between about 10 mm and about 35 mm.
5. The package of Claim 2, wherein the strip is straight, curved, angled, tapered, in a wave or zig-zag shape.
6. The package of Claim 1, wherein the package is made from at least one of art paper, corrugated paper, cardboard, plastic, laminate, cloth, plant fiber, metal, or synthetic material.
7. The package of Claim 1, wherein the removable section is made of a different material from the cover.
8. The package of Claim 1, wherein the at least one removable section overlaps an area of the main portion.
9. The package of Claim 8, wherein the area of the main portion under the at least one removable section can be exposed by removal of the at least one removable section, and has a different color or a different surface effect or texture or finish from the at least one removable section.
10. The package of Claim 1, wherein the walls of the body are connected to the main portion of the body by an angle of about 90 degrees, and the at least one removable section substantially extends across the main portion of the body from wall to wall.

11. The package of Claim 1, wherein the main portion of the body has an indent adjacent to the opening.
12. The package of Claim 1, wherein one or more of the main portion, the bottom portion, and walls of the body is curved.
13. The package of Claim 1, wherein the body, the cover, and the at least one removable section are integrally formed.
14. The package of Claim 1, further comprising one or more segments disposed between the main portion and the bottom portion of the body to form multiple compartments within the inner volume.
15. The package of Claim 1, wherein the at least one tab of the cover can be fit into the corresponding groove after removing the at least one removable section by a depth about 2 to 5 mm.
16. The package of Claim 1, wherein the cover or the at least one tab of the cover can be fit into an indent, a cutout, or the opening for substantially resealing the inner volume of the body.
17. The package of Claim 1, wherein the body substantially has a rectangular shape with a size of about 30 mm to 200 mm in length, about 30 mm to 200 mm in width, and about 8mm to 60 mm in depth.

18. The package of Claim 1, wherein the inner volume is able to contain at least 2 and up to 90 contact lenses, each contact lens packaged in its own primary packaging.

19. A package for contact lenses, comprising:

a body including a main portion, a bottom portion, and walls connecting the main portion and the bottom portion, wherein the main portion, the bottom portion, and walls form an inner volume within the body and an opening for accessing the inner volume of the body;

a cover including a lid portion with a first edge fully connected to the bottom portion of the body and a second edge opposing the first edge, wherein the lid portion of the cover extends from the bottom portion of the body, over the opening, to the main portion of the body upon which it lies when closed;

at least one removable section connected between the lid portion of the cover and the main portion of the body such that after its removal or in its absence the lid portion would be able to open and expose the inner volume of the body; and

wherein the lid portion of the cover includes at least one attaching element for substantially resealing the inner volume of the body after removal of the at least one removable section.

20. The package of Claim 19, wherein the at least one attaching element is at least one of an adhesive, a magnet, a Velcro, or a clamp.