

Inner liner perforations

The invention relates to a container for smoking articles such as cigarettes.

5 For the purpose of packaging, a predetermined collation of a plurality of smoking articles is wrapped into an inner liner to form a wrapped bundle. Typically, the wrapped bundle is then inserted into a rigid outer pack, for example a hinge lid pack, a slide and shell pack, a shoulder
10 box, or the like.

 For hinge lid packs, typically the entire top portion of the inner liner is removable to allow access to all the smoking articles. In the case of smoking articles having a filter, for example filter cigarettes, the top portion of the
15 inner liner covers the filter ends of the smoking articles. To facilitate removal of the top portion of the inner liner, typically a perforated line is provided on the inner liner. However, once the entire top portion of the inner liner has been removed, the inner liner can no longer be closed and the
20 protective function of the inner liner is reduced.

 During manufacture of the pack, the smoking articles are arranged in a predetermined collation inside the wrapped bundle. After a number of the smoking articles have been removed from the pack, the orderliness of smoking articles
25 inside the wrapped bundle is reduced. Typically, at least some of the remaining smoking articles tend to arrange themselves in a slanted position with respect to the side walls of the container. At this point, some of the top ends of these slanted smoking articles may be caught by the front
30 wall or a side wall of the lid of the pack as the pack is closed. This may lead to undesired mechanical damage of the top ends of the smoking articles.

There is a need for a container for smoking articles which provides improved protection from inadvertent physical damage, heat and loss of moisture after the wrapped bundle has been opened, resulting in a potential reduction of
5 quality of the smoking articles.

Herein disclosed is a container for smoking articles comprising a box part, a lid and a hinge, wherein the box part comprises a bottom wall, a front wall and a back wall, wherein the lid comprises a front wall,
10 a back wall and the entire top wall of the container. The lid may be pivoted about that hinge in order to open the container. The container further comprises an inner liner for wrapping around a number of smoking articles to form a wrapped bundle. The inner liner comprises a top panel and the
15 top panel comprises at least a part of a first top portion and a second top portion. The first top portion can be permanently removed from the rest of the inner liner to create an opening to allow access to the smoking articles.

According to an aspect of the present invention, there
20 is provided a container for smoking articles, with a box part, a lid and a hinge, wherein the box part comprises a bottom wall, a front wall and a back wall, wherein the lid comprises a front wall, a back wall and the entire top wall of the container, wherein the lid may be pivoted about that hinge in
25 order to open the container, wherein the container comprises an inner liner for wrapping around a number of smoking articles, wherein the inner liner comprises a top panel, wherein the top panel of the inner liner comprises at least a part of a first top portion and a second top portion, and wherein each of the
30 first top portion and the second top portion can be independently and permanently removed from the rest of the inner liner.

Throughout the specification the term "top" is used to refer to that end of the container or inner liner that covers the top end of the smoking articles that is removed first from the container. In normal use, the second top portion is not removed.

The remaining second top portion of the inner liner covers the ends of at least some of the smoking articles inside the container and significantly reduces the risk of inadvertent mechanical damage to the covered smoking articles. The remaining top portion of the inner liner forms a smooth surface for the lid walls while the lid is closed. This facilitates the closing of the hinge lid pack. Additionally, the remaining second top portion protects the covered smoking articles through its inherent barrier

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properties. Furthermore, the second top portion of the inner liner stabilizes the remaining smoking articles within the container. A further advantage is that the inner liner according to the invention may be handled during manufacture the same way as the inner liner of a conventional hinge lid pack. This ensures good machinability at high speed and low cost.

Preferably, the second top portion of the inner liner according to the container of the invention is removable from the inner liner as well, independently from the first top portion. In this embodiment of the invention, the top wall of the inner liner comprises two portions that are independently removable. This leaves to the consumer the choice, which portion of the top wall to remove to access the smoking articles.

Preferably, the first top portion and the rest of the inner liner are connected by at least one weakening line. The weakening line may be a creasing, scoring or perforation line. A perforation line is a preferred way to allow separation of the first top portion from the rest of the inner liner.

Preferably, the first top portion comprises parts of one, two or three additional panels of the inner liner other than the top panel. This improves the convenience of the consumer in accessing the smoking articles through the opening in the inner liner.

Preferably, the size of the part of the first top portion extending over the top panel has a size of at least one quarter of the size of the top panel. For example, it has a size of one quarter, one third, one half or two thirds of the size of the top panel of the inner liner, or it may have any another suitable size.

Preferably, the first top portion extends from the front panel over the top panel to the rear panel of the inner liner. This embodiment allows particularly convenient access to the smoking articles while still providing protection from mechanical forces, heat, loss of moisture and humidity to the smoking articles remaining in the inner liner. In a preferred embodiment, the first top portion additionally extends over the edge of a side panel so as to include a part of a side panel of the inner liner.

Preferably, the hinge of the hinge lid pack is located at the back wall of the pack and the second top portion covers the top panel of the inner liner adjacent to one of the side walls of the pack. This advantageously protects the smoking articles inside the container which have the highest risk to be affected by a side wall of the lid as such a hinge lid pack is closed.

Alternatively, in a side opening hinge lid pack the hinge is located at a side wall of the container. Preferably, in such a pack the second top portion of the inner liner covers the top panel adjacent to said side wall of the container that comprises the hinge. This advantageously protects the smoking articles inside the container which have the highest risk to be affected by the front wall or back wall of the lid as such a side opening hinge lid pack is closed.

Preferably, the container according to the invention comprises an inner frame. Inner frames are typically used to increase the structural strength of a container for smoking articles. More preferably, a part of the inner frame extends at least over a part of the top wall portion of the inner liner. This feature further increases the protection of the top ends of the covered smoking articles.

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Generally, the first top portion of the inner liner may have any suitable shape, for example it may be triangular, rectangular, hexagonal, semicircular, oval, or it may have a combination of such shapes or may have an irregular shape, for example that of a company logo. Also, the first top portion may have one particular shape on the front panel of the inner liner, for example a triangular shape, and may have another shape on the top panel, for example a semicircular or a rectangular shape.

10 In one particular embodiment of the container according to the invention, the shape of the first top portion is trapezoid when viewed from the side and extends over the front panel, the top panel, the rear panel and over the edge of a side panel so as to include a part of the side panel.

15 Through an appropriate choice of its dimensions, the container according to the invention may be designed to house separate bundles of different numbers of smoking articles. Alternatively or in addition, the container according to the invention may be designed to house separate bundles of smoking articles of different dimensions (for example cigarettes of different length or different circumference). The container according to the invention may, for example, be designed to house one or more bundles of short (approximately 20 between about 70 mm and 75 mm in length), regular size (approximately 80 mm in length), king size (about 84 mm in length), super king size, slim, super slim or wide cigarettes.

25 Through an appropriate choice of its dimensions the container may also be designed to hold a total of, for example, ten, fifteen sixteen, seventeen, eighteen, nineteen, 30 twenty, twenty-one or twenty-five smoking articles. These may

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be arranged in different collations, depending on the total number of smoking articles. For example, the smoking articles may be arranged in one row of six, seven, eight, nine or ten; two rows of five, six, seven, eight, nine or ten; two rows of
5 5-6, 6-7, 7-8; three rows of 5-5-5, 5-6-5, 6-5-6, 5-6-7, 6-7-6, 7-5-7, 7-6-7, 7-7-7, 8-9-8; four rows of four, five or six.

A wide variety of different types of cigarettes are produced and sold. For example, different types of tobacco
10 having unique characteristic tastes and aromas, such as Burley, Oriental and Virginia tobacco, are used alone or in varying amounts in tobacco blends to produce brands of cigarettes having different characteristic taste. In addition, both filterless cigarettes and cigarettes having
15 many different types of filter tips are manufactured, as well as cigarettes of differing length (for example regular size, king size or super king size), circumference (for example slim or super slim), strength of taste, resistance to draw and total particulate matter delivery. Furthermore,
20 cigarettes containing flavourings such as menthol are also available.

The container according to the invention may house one or more bundles of smoking articles of different tobacco blends or flavours. Alternatively, or in addition, a
25 container according to the invention may house one or more bundles of smoking articles of different sizes (different length, different circumferences or both different lengths and different circumferences).

Preferably, the container according to the invention
30 is substantially parallelepipedal. More preferably, the container according to the invention is substantially cuboid. Alternatively, the containers according to the invention may

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have a different cross section such as triangular, pentagonal, hexagonal, octagonal, semi-circular or semi-oval.

The container according to the invention may have one or more right-angled longitudinal edges, one or more right-angled transverse edges, one or more rounded longitudinal edges, one or more rounded transverse edges, one or more bevelled longitudinal edges, one or more bevelled transverse edges or any suitable combination thereof.

The container according to the invention may be a hinge lid pack, a shoulder box or a slide and shell type pack with a hinge. For example, the lid may be connected through the hinge to a flap that is slidably connected to the box part of the container.

Further advantageous aspects of the invention will become apparent from the following description of embodiments of the invention in which:

Fig. 1 shows a perspective view of an open container according to one embodiment of the invention with one slanted cigarette,

Fig. 2 shows a front view of a wrapped bundle according to one embodiment of the invention,

Fig. 3 shows a top view of an embodiment of the inner liner in its unfolded state, and

Fig. 4 shows a top view of the wrapped bundle according to the invention comprising the inner liner of Fig. 3 wrapped about a collation of nineteen cigarettes, with the removable portion of the inner liner removed.

Fig. 1 shows a container 20 according to an embodiment of the invention with most of the cigarettes 2 removed. The container comprises a box part 28 and a lid 29. The lid 29 may be pivoted around hinge 30 to open the container. The

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container 20 further comprises a front wall 22, a back wall 25 and two side walls 24. In Fig. 1 the removable first top portion 100 of the inner liner 10 is already missing and only the second top portion 110 is present. Through the opening a
5 slanted cigarette 2 is visible. Because the cigarette 2 is slanted, its top end protrudes over the side wall of the container. In this case, the side wall of the lid 29 may damage the cigarette 2 when the container 20 is closed. On the other hand, the second top portion 110 of the top panel
10 103 of the inner liner 10 prevents a slanted cigarette 2 protruding over the other side wall 24 or the front wall 22 of the container 20, thus protecting the cigarettes 2 inside the pack from mechanical damage.

Fig. 2 shows a front view of a wrapped bundle 1
15 according to one embodiment of the invention comprising an inner liner 10 wrapped about a collation of smoking articles (not visible). The first top portion 100 of inner liner 10 is connected through a perforation line 101 to the rest of inner liner 10. The first top portion 100 has not been separated
20 from the rest of inner liner 10. The first top portion 100 has a triangular shape on the front panel 102 of inner liner 10. On the rear panel of inner liner 10 the first top portion 100 has a similar triangular shape, although this is not visible in Fig. 2. The triangular portions on the front panel
25 and on the rear panel are connected through the perforation line 101. The perforation line 101 extends across the top panel 103 and across the side panel 104. At the upper end of the triangular portion on front panel 102, the perforation line 101 continues straight across top panel 103 towards the
30 upper end of triangular portion of the rear panel. At the lower end of the triangular portion on the front panel 102, perforation line 101 continues straight across side panel 104

towards the lower end of the triangular portion on the rear panel of the inner liner 10.

5 In order to access the smoking articles, the first top portion 100 is removed from the rest of inner liner 10, by separating it along perforation line 101 . Thus, the upper right corner of inner liner 10 is completely removed once the first top portion 100 has been separated from the rest of
10 inner liner 10 . Thus, an opening is created in the inner liner 10, through which the consumer can access the smoking articles in a convenient manner.

Fig. 3 shows an embodiment of an inner liner 10 in its unfolded state. Perforation line 101 is indicated in Fig. 3
15 by a dashed line and forms the boundary of removable first top portion 100. Also, various folding lines are shown forming the boundaries for the front panel 102, the rear panel 105, the side wall panels 104 and 106, and the bottom panel 107.

20 Inner liner 10 may be made from any suitable material for example from paper or aluminum foil, or from a combination of packaging materials, for example paper, aluminum foil and a plastic material.

Fig. 4 shows a wrapped bundle 1 of smoking articles 2
25 comprising nineteen filter cigarettes 2. The filters 20a of the filter cigarettes are arranged adjacent to top panel 103. The removable portion 100 has already been removed from the rest of the inner liner 10, so that only the second top portion 110 is left. The position 21 of the missing cigarette
30 2 in the nineteen cigarettes package is covered by the second top portion 110.

Claims

1. A container for smoking articles, with a box part, a lid and a hinge, wherein the box part comprises a bottom wall, a front wall and a back wall, wherein the lid comprises a front wall, a back wall and the entire top wall of the container, wherein the lid may be pivoted about that hinge in order to open the container,

wherein the container comprises an inner liner for wrapping around a number of smoking articles,

wherein the inner liner comprises a top panel,

wherein the top panel of the inner liner comprises at least a part of a first top portion and a second top portion, and

wherein each of the first top portion and the second top portion can be independently and permanently removed from the rest of the inner liner.

2. A container for smoking articles according to claim 1, wherein the first top portion and the rest of the inner liner are connected by at least one weakening line.

3. A container for smoking articles according to any one of the preceding claims, wherein the first top portion additionally extends over one, two or three additional panels of the inner liner other than the top panel.

4. A container for smoking articles according to claim 3, wherein the first top portion extends from the front panel over the top panel to the rear panel of the inner liner.

5. A container for smoking articles according to claim 3, wherein the first top portion additionally extends over the edge of a side panel of the inner liner.

6. A container for smoking articles according to any one of the preceding claims, wherein the hinge is located at the back wall of the container and wherein the second top portion covers the top panel of the inner liner adjacent to one of the side walls of the container.

7. A container for smoking articles according to any one of claims 1 to 5, wherein the hinge is located at a side wall of the container and wherein the second top portion of the inner liner covers the top panel adjacent to said side wall that comprises the hinge.

8. A container for smoking articles according to any one of the preceding claims, wherein the container further comprises an inner frame.

9. A container for smoking articles according to claim 8, wherein a part of the inner frame extends at least over a part of the top panel of the inner liner.