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EP 4 269 263 B1

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DescriptionField of invention

[0001] The invention relates to a blank configured to be erected to form a package.

Technical Background

[0002] When designing a package, the designer typically takes a plurality of design criteria in consideration. The package should often be designed such that it makes efficient use of material, is easy to manufacture, is easy to transport to the point of use, is easy to prepare for use, provides a strong structure and also use a minimum of adhesive.

[0003] When designing a package, it is often desirable that it is strong during handling, easy to stack and stable when transported in the erected state.

[0004] Other desirable design criteria that the designer often takes in consideration are that the lid of the package should be easy to close and lock when the item is packaged and that the package should protect the item that is transported from scratches as well as from mechanical impact.

[0005] When designing a package, it is typically desirable to consider other aspects as well, such as that it should be easy to open up and easy to see if it has been opened before. Often it is also desirable to be able to reclose the package.

[0006] Packages made from paper-based material, such as cardboard, are beneficial since they do not take up much space before they are erected, during for example transport from the production site to the site of use. There exist numerous attempts to address the above design criteria in connection to designing a box of paper-based material.

[0007] US7611042 for instance discloses a package with a bottom panel, side walls, top and bottom end walls and an extra lid that the lid is glued thereupon. The extra lid and the lid are pre-glued in a semi-flat state and then erected and loaded through the end walls. To close the package the top and side end walls may be glued to the bottom end wall. The document further discloses a tear off opening at the lid.

[0008] US394993 discloses a package with a triple side wall construction and a main lid being locked in place by auxiliary flaps extending downwardly on the outside of and through openings in the side walls.

[0009] However, it may be noted that the prior art documents do not adequately address the set of design criteria that the box should give protection from mechanical impact and be stable in erected state both when carried and while in a stack of other packages during transport, it should also use a minimum of adhesive. The prior art document do neither adequately address the set of design criteria that it is easy to transport unfolded, easy to fold, easy to open.

[0010] In DE19951806 there is disclosed a carton for bottles of wine containing an insert with opposite edges folded over two or more times in same direction.

[0011] In US2014305944 there is disclosed a resealable box including: a bottom panel foldably attached with a pair of opposing end panels and a pair of opposing side panels, where the pair of opposing end panels each include a pair of opposing corner tucks foldably attached therewith, where the pair of opposing side panels each include a side tuck foldably attached along a side panel edge opposite the bottom panel; a top panel foldably attached with one of the opposing end panels; and a sealing flap foldably attached with the top panel and configured for sealing with the other of the opposing end panels, where the sealing flap includes at least two sealing strips and a zipper strip disposed between and generally parallel with the sealing strips.

[0012] In CN105015883 there is disclosed an anti-theft environment-friendly package free of adhesive tape.

[0013] WO2021250623 may also be mentioned as an example of a package with double-walled walls and a lid formed from a single blank.

[0014] Thus, there is still a need for a package adequately addressing at least some of the design criteria mentioned above.

Summary of invention

[0015] It is an object of the invention to provide a solution that addresses at least some of the design criteria described above, namely, to provide a package which is be stable, easy to stack during transport and give protection from mechanical impact. Preferably, the package should be easy to open, and the use of adhesive should be kept at a minimum.

[0016] This object has been achieved by a blank according to claim 1 configured to be erected to form a package. The blank comprises:

a bottom panel,
 a first side wall panel and a second side wall panel being oppositely arranged on a respective one of two oppositely arranged transversely extending sides of the bottom panel and being configured to form side walls of the package,
 two end wall panels being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides of the bottom panel and being configured to form end walls of the package,
 a first lid panel connected to the first side wall panel along a transversely extending side of the first side wall panel being opposite the bottom panel,
 a second lid panel connected to the second side wall panel along a transversely extending side of the second side wall panel being opposite the bottom panel,
 wherein the first lid panel and the second lid panel together have, as seen in a flat-laid state of the blank,

a longitudinal extension being greater than a longitudinal extension of the bottom panel such that, when the blank is erected into a package and the first and second lid panels are folded towards each other to form a lid, the first lid panel is configured to longitudinally overlap and extend on top of at least a portion of the second lid panel, the blank further comprising

two support panels being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides of the second lid panel, wherein each support panel has, as seen in a flat-laid state of the blank, a transversal extension being equal to a transversal extension of the respective one of the end wall panels, such that a transversely outer edge of the respective support panel, as seen in a flat-laid state of the blank, is capable of extending to and abut an inner major surface of the bottom panel when the blank is erected to form the package.

[0017] By such a blank, the support panels provide improved stability for the end walls by providing an extra layer of material to the end walls. The support panels also provide improved stability for the second lid panel which in its turn give improved stability for the first lid panel by the support panels connected to the second lid panel being capable of abutting the inner major surface of the bottom panel when the blank is erected to form the package. The extra stability provided by the support panels connected to the second lid panel gives extra protection from mechanical impact both against the end walls as well as against the lid. The stability of the lid also makes the package suitable for stacking and resistant to pressure against the lid. This inherently strong construction makes it possible to limit usage of adhesive.

[0018] The first side wall panel is foldably connected to a first transversely extending side of the bottom panel and the second side wall panel is foldably connected to a second transversely extending side of the bottom panel, wherein the first and second transversely extending sides of the bottom panel are opposite to each other; opposite as in on opposite sides of the bottom panel.

[0019] A first of the two end wall panels is foldably connected to a first longitudinally extending side of the bottom panel and a second of the two end wall panels is foldably connected to a second longitudinally extending side of the bottom panel, wherein the first and second longitudinally extending sides of the bottom panel are opposite to each other; opposite as in on opposite sides of the bottom panel.

[0020] The first side wall panel is foldably connected to the bottom panel along a first transversely extending side of the first side wall panel and the first lid panel is foldably connected to the first side wall panel along a second transversely extending side of the first side wall panel, wherein the first and second transversely extending sides of the first side wall panel are opposite to each

other; opposite as in on opposite sides of the first side wall panel.

[0021] The second side wall panel is foldably connected to the bottom panel along a first transversely extending side of the second side wall panel and the second lid panel is foldably connected to the second side wall panel along a second transversely extending side of the second side wall panel, wherein the first and second transversely extending sides of the second side wall panel are opposite to each other; opposite as in on opposite sides of the second side wall panel.

[0022] A first of the two support panels is foldably connected to the second lid panel along a first longitudinally extending side of the second lid panel and a second of the two support panels is foldably connected to a second longitudinally extending side of the second lid panel, wherein the first and second longitudinally extending sides of the second lid panel are opposite to each other; opposite as in on opposite sides of the second lid panel.

[0023] Preferred embodiments appear in the dependent claims and in the description.

[0024] Each support panel may be configured to be situated at an inside of the end wall formed by the end wall panels when the blank is erected to form the package, such that the respective support panel extends with an outer major surface thereof along an inner major surface of the respective end wall panel.

[0025] With each support panel being situated inside of the end wall, the end walls will aid in keeping the respective the support panel in its intended position and will thereby stabilize the second lid. With the second lid being stabilized, the support from the second lid to the first lid is improved.

[0026] The first lid panel may be configured to be adhesively connected to the second lid panel when the blank is erected to form the package, preferably by the blank being provided with one or more adhesive strips configured to adhesively connect the first lid panel to the second lid panel.

[0027] The first lid panel may e.g., be adhesively connected to the second lid panel by providing a glue, such as a hot melt glue, between the first and second lid panels. However, preferably the adhesive connection is performed with the use of one or more adhesive strips. The respective adhesive strip is preferably preinstalled on a respective one of the panels and is preferably protected by a cover strip which covers the adhesive surface of the adhesive strip until the user intends to close the package, whereby the user removes the cover strip and exposes the adhesive surface such that the first and second lid panels may be adhesively connected to each other.

[0028] The blank may be provided with a single adhesive strip, preferably a single preinstalled adhesive strip, positioned on an inside surface of the first lid panel or on an outside surface of the second lid panel. The blank may be provided with a plurality of adhesive strips, preferably

a plurality of preinstalled adhesive strips. The adhesive strips may be positioned on only an inside surface of the first lid panel or alternatively only on an outside surface of the second lid panel, or yet alternatively some on the inside surface of the first lid panel and some on the outside surface of the second lid panel.

[0029] With one or more adhesive strips on the first lid panel and/or the second lid panel, the first lid panel may easily and securely be attached to the second lid which creates an easy solution for locking the package in the closed position simply by pressing the first lid panel towards the second lid panel and thereby pressing the adhesive strips on the first lid panel and/or second lid panel against the other lid panel. While pressing the first lid panel against the second lid panel, the support panels connected to the second lid panel provides support and counteracts the second lid panel being pushed downwardly into the interior of the package. While piled up during transportation the lid will not come off because of the adhesive and the pressure from the other packages on the adhesive.

[0030] The first lid panel may be provided with a tear line extending transversely across the first lid panel.

[0031] Extending across is in this context intended to refer to an extension across the full width of the first lid panel. The tearing of the first lid panel along the tear line may be facilitated by the provision of a local weakening of the material, such as by the provision of a perforation or at least a tear initiating cut, and/or by the provision of a local strengthening, such as by the provision of a tear string. It may be noted that the local weakening and/or local strengthening need not extend across the full width of the first lid panel. However, preferably the local weakening and/or local strengthening extends at least along a major part of the transversal extension of the first lid panel.

[0032] In a preferred embodiment, the first lid panel is adhesively connected to the second lid panel at a first position on the first lid panel, as seen along the longitudinal direction, and the tear line is provided at a second position on the first lid panel, as seen along the longitudinal direction, wherein the first position is, compared to the second position, closer to a free transversely extending edge of the first lid panel such that tearing of the first lid panel along the tear line separates an end portion of the first lid panel being adhesive connected to the second lid panel from the remaining portion of the first lid panel still being connected to the first side wall panel such that the package is easily opened.

[0033] In a preferred embodiment, the first and/or the second lid panel is provided with a second adhesive strip, preferably a second preinstalled adhesive strip, which preferably still is protected by a cover strip, wherein the second adhesive strip is, as seen along the longitudinal direction, positioned where there still is an overlap between the first and second lid panels even though the first lid panel has been reduced in length by being torn along the tear line. This second adhesive strip may e.g., be

used for reclosing the package. This may e.g., be useful in case the package is used of commercial applications where some of the goods often is returned to the original sender.

5 **[0034]** With a tear line opening, the closed package may be opened easily. Moreover, it is also apparent if someone has opened the package earlier.

[0035] The blank may further comprise two additional support panels being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides of the first lid panel,

10 wherein each additional support panel has, as seen in a flat-laid state of the blank, a transversal extension being equal to a transversal extension of the respective one of the end wall panels, such that a transversely outer edge of the respective additional support panel as seen in a flat-laid state of the blank, is capable of extending to and about the inner major surface of the bottom panel when the blank is erected to form the package.

15 **[0036]** With the two additional support panels being capable of abutting the inner major surface of the bottom panel the package will get further improved stability both during transportation and when stacked.

[0037] A first of the two additional support panels is foldably connected to the first lid panel along a first longitudinally extending side of the first lid panel and the second of the two additional support panels is foldable connected to the first lid panel along a second longitudinally extending side of the first lid panel, wherein the first and second longitudinally extending side of the first lid panel are opposite to each other; opposite as in on opposite sides of the first lid panel.

25 **[0038]** The respective support panel and the associated additional support panel may each be positioned and may each have an extension as seen along the longitudinal direction, such that there is no overlap of respective support panel and the associated additional support panel when the blank is erected to form the package.

30 **[0039]** With each additional support panel not overlapping their respective support panel there will be no risk of these panels colliding with each other. Therefore, the blank will be easy to erect to form the package. By securing that there is no overlap, it is possible that both the support panels and the additional support panels extend truly vertically from the respective lid panel to the inner major surface of the bottom panel, whereby it is possible to provide a package in which both the support panels and the additional support panels are in the best positions to be able to carry vertical load applied when the package is stacked and during the action of closing the package.

35 **[0040]** The additional support panels may each be configured to be situated at the inside of the end walls formed by the end wall panels when the blank is erected to form the package, such that the respective additional support panel extends with an outer major surface thereof along an inner major surface of the respective end wall

panel.

[0041] With each additional support panel being situated inside of the respective end wall, the end walls will aid in keeping the support panels in its intended position and thereby further stabilize the first lid.

[0042] A longitudinal extension of the first lid panel is preferably at least 60% of a longitudinal extension of the bottom panel, and more preferably 100%.

[0043] With the longitudinal extension of the first lid panel being at least 60% of the longitudinal extension of the bottom panel, it is facilitated to provide an overlap of the first and second lid panels, whereby the first lid panel will get support from the second lid. If an overlap of the first lid panel over the second lid panel would be too small, the support from the second lid would be too weak.

[0044] With a longitudinal extension of the first lid panel being 100% of the longitudinal extension of the bottom panel the first lid will create a smooth top surface of the package which facilitate the stability for the package during the transport of the stacked packages. It may be noted that 100% may in practice be a few millimetres shorter such that it is secured that the first lid panel does not extend past the plane of outer major surface of the second end wall.

[0045] A longitudinal extension of the second lid panel is preferably between 10% and 50% of the longitudinal extension of the bottom panel, and more preferably between 20% and 40%.

[0046] With the second lid covering less than half of the bottom panel an efficient use of material is secured, and the second lid covering at least 10% is considered a practical lower limit where there still is provided a distinct improved stability from the second lid for the first lid. In the preferred interval a good balance between stability and usage of material is reached.

[0047] The longitudinal extension of the second lid panel is preferably greater than a longitudinal extension of the second side wall panel, more preferably between 120% and 200%.

[0048] With the longitudinal extension of the second lid panel being greater than the longitudinal extension of the side wall panel, it is secured that the second lid panel cannot accidentally be folded to be aligned with the second side wall panel and in a sense act as an additional inner side wall panel. By securing that such a kind of folding is not possible it is made easier to fold the blank in the intended manner in which the support panels are capable of abutting the inner major surface of the bottom panel.

[0049] The longitudinal extension of the first lid panel is preferably greater than the longitudinal extension of the second lid panel, more preferably between 200% and 600%. By having the second lid panel being significantly shorter than the first lid panel, it is made possible to provide a package by which the overlap, which is intended for the interconnection between the first and second lid panels, becomes positioned fairly close to the connection between the second lid panel and the

second side wall panel. Thereby, the connection between the second lid panel and the second side wall panel will aid in keeping the second lid panel flat, also for the central portion of the second lid panel close to the free end, with the attribute central in "central portion" referring to central as seen along the transversal direction.

[0050] A longitudinal extension of the support panels is preferably at least 50% of the longitudinal extension of the second lid panel, and more preferably at least 90%, wherein preferably the transversely outer edge of the respective support panel which is configured to abut the inner major surface of the bottom panel has a longitudinal extension being about 40-80% of the longitudinal extension of the second lid panel.

[0051] It may in this context be noted that the transversely outer edge of the respective support panel need not have the full longitudinal extension of the support panel. In a preferred embodiment the support panels extend along the full longitudinal extension of the second lid panel, at least as seen along the connection between the support panels and the second lid panel. In a preferred embodiment the corner between the transversely outer and longitudinally extending edge and the transversely extending edge closest to the second side wall panel is rounded or chamfered, whereby the transversely outer and longitudinally extending edge of the respective support panel abuts the inner major surface of the bottom panel along a length being about 40-80% of the longitudinal extension of the first lid panel. Preferably, the respective support panel abuts the inner major surface of the bottom panel directly beneath the position of the intended adhesive connection between the first and second lid panels.

[0052] When the longitudinal extension of the support panels is at least 40% of the longitudinal extension of the second lid panel, the support panels are considered able to securely assist the stability of the second lid.

[0053] A longitudinal extension of the additional support panels may be between 40% and 80% of the longitudinal extension of the first lid panel, at least along the connection between the first lid and the respective additional support panel. This is considered to provide a strong supportive effect. Preferably the transversely outer edge of the respective additional support panel configured to abut the inner major surface of the bottom panel has a longitudinal extension being about 30-70% of the longitudinal extension of the first lid panel. The fact that the longitudinal extension of the abutment may be slightly shorter than the longitudinal extension of the additional support panels along the first lid panel allows for rounded or chamfered edges at the respective end of the longitudinally extending free edge of the respective additional support panel.

[0054] It may in this context be noted that the transversely outer edge of the respective additional support panel need not have the full longitudinal extension of the additional support panel. In a preferred embodiment the additional support panels extend along the full longitu-

dinal extension of the first lid panel, at least as seen along the connection between the additional support panels and the first lid panel. In a preferred embodiment the corner between the transversely outer and longitudinally extending edge and the transversely extending edge closest to the second side wall panel is rounded or chamfered, whereby the transversely outer and longitudinally extending edge of the respective support panel abuts the inner major surface of the bottom panel along a length being about 30-70%.

[0055] The blank may further comprise four corner panels, each corner panel being arranged on and extending transversely from a respective longitudinally extending side of the respective side wall panel.

[0056] The four corner panels may be used to connect the side walls with their respective end wall by folding the corner panels to the respective end wall. This further enhances the stability of the package.

[0057] The blank may further comprise two outer end wall panels each connected to the end wall panels along a respective longitudinally extending side of the respective end wall panels being opposite the bottom panel, wherein the respective end wall panel and the associated outer end wall panel is configured to form a respective double-walled end wall when the blank is erected to form the package.

[0058] Each outer end wall panel is foldably connected to the respective end wall panel along a second longitudinally extending side of the respective end wall panel and the bottom panel is foldably connected to the first longitudinally extending side of each end wall panel, wherein the first and second extending sides of the end wall panels are opposite to each other; opposite as in on opposite sides of the respective end wall panel.

[0059] With the outer end wall panel creating the double-walled end wall the package gets further protection from mechanical impact against the end wall sides.

[0060] Preferably, the respective outer end wall panel is arranged to form an inside of the respective double-walled end wall. This allows for the outer end wall panels to be locked in position with the use of recesses and tabs.

[0061] The corner connection panels may be arranged to be located between the respective end wall panel and the associated outer end wall panel forming the respective double-walled end wall when the blank is erected to form the package.

[0062] With the connection panels arranged inside each double end wall panel this part of the package can be formed without adhesive which further reduces the use of any adhesive. With the connection panels locked inside the double-walled end walls, the mutual orientation of the end walls and side walls is firmly kept.

[0063] The respective outer end wall panel may be arranged to form an inside of the respective double-walled end wall, and

wherein the bottom panel may be provided with at least two recesses, at least one at each longitudinal extending side and wherein each outer end wall panel has at least

one tab, wherein the respective recess and the respective tab are mutually positioned as seen along the longitudinal direction such that the tabs are configured to be received in the recesses when the blank is erected to form the package.

[0064] With the recesses, at least two and preferably four recesses, and the respective tabs, the respective outer end wall panel of the double-walled end wall may be secured in the bottom panel, thereby aiding in keeping the double-walled end walls in the closed double-folded position. With double-walled end wall kept in position, the corner connection panels will be kept in position between the end wall panel and the outer end wall panel which makes both the side wall and the end wall to stay in the intended orthogonal position relative to the bottom panel and relative to each other, when the blank is erected to form a package.

[0065] It may be noted that the use of first, second, third, fourth, fifth, etc. are mainly to be seen as labels facilitating reading and that it does not necessarily mean that there need to be all the intervening numbers of portions present. It may e.g., be noted that it is contemplated to have a design where there is a first portion, a second portion, a third portion and a fifth portion, with the fourth portion being omitted. However, to facilitate reading, we have consistently used the numbering first, second, third, fourth, etc., as labels, and in a sense based on an embodiment including all conceivable portions.

[0066] It may also be noted that panel names such as top, floor and wall are intended meant to be read as labels, not necessarily defining the orientation of the panel. As an example, the package does not need to be oriented such that the first lid panel actually forms the top of the package. The package may be oriented such that the panel labelled first lid panel actually forms a side wall or even forms a bottom of the package. However, in the preferred embodiment, the package will be oriented so that the bottom panel faces downward, the lid panels face upward, and the end wall panels and side wall panels faces outwards from an axis between lid and bottom.

[0067] Generally, all terms used in the claims are to be interpreted according to their ordinary meaning in the technical field, unless explicitly defined otherwise herein. All references to "a/an/the [element, device, component, means, step, etc]" are to be interpreted openly as referring to at least one instance of said element, device, component, means, step, etc., unless explicitly stated otherwise. The steps of any method disclosed herein do not have to be performed in the exact order disclosed, unless explicitly stated.

[0068] The invention may also in short be said to relate to a blank configured to be erected to form a package, the blank comprising a bottom panel, a first side wall panel and a second side wall panel, two end wall panels, a first lid panel connected to the first side wall panel, a second lid panel connected to the second side wall panel, two support panels being oppositely arranged on a respec-

tive one of two oppositely arranged longitudinally extending sides of the second lid panel, wherein each support panel has, as seen in a flat-laid state of the blank, a transversal extension being equal to a transversal extension of the respective one of the end wall panels, such that a transversely outer edge of the respective support panel, as seen in a flat-laid state of the blank, is capable of extending to and abut an inner major surface of the bottom panel when the blank is erected to form the package.

Brief description of the drawings

[0069] The invention will by way of example be described in more detail with reference to the appended schematic drawings, which shows a presently preferred embodiment of the invention.

Figure 1 discloses a blank for forming a package.

Figure 2 discloses a package half closed.

Figure 3 discloses a package almost closed.

Figure 4 discloses a closed package.

Detailed description of preferred embodiments

[0070] The present invention will now be described more fully hereinafter with reference to the accompanying drawings, in which currently preferred embodiments of the invention are

[0071] Figure 1 shows a blank 1. The blank 1 is configured to be erected into a package 200 as shown in Figures 2-4.

[0072] The blank 100 comprises a bottom panel 10, a first side wall panel 21 and a second side wall panel 22 being oppositely arranged on a respective one of two oppositely arranged transversely extending sides 10a, 10b of the bottom panel 10 and being configured to form side walls 221, 222 of the package 200. With oppositely arranged means that the first side wall panel 21 is foldably connected to a first transversely extending side 10a of the bottom panel 10 and the second side wall panel 22 is foldably connected to a second transversely extending side 10b of the bottom panel 10, wherein the first and second transversely extending sides 10a, 10b of the bottom panel 10 are opposite to each other.

[0073] The blank 100 further comprises two end wall panels 30a, 30b being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides 10c, 10d of the bottom panel 10 and being configured to form end walls 230a, 230b of the package 200. With oppositely arranged means that the first end wall panel 30a is foldably connected to a first longitudinally extending side 10c of the bottom panel and the second of the two end wall panel 30b is foldably connected to a second longitudinally extending side 10d of the bottom panel 10, wherein the first and second longitudinally extending sides 10c, 10d of the bottom panel 10 are opposite to each other.

[0074] In the preferred embodiment the blank further comprises two outer end wall panels 90a, 90b each connected to the end wall panels 30a, 30b along a respective longitudinally extending side 30ac, 30bd of the respective end wall panels 30a, 30b being opposite the bottom panel 10. With opposite the bottom panel 10 means that each outer end wall panel 90a, 90b is foldably connected to the respectively end wall panel 30a, 30b along a longitudinally extending side 30ac, 30ad of the respective end wall panel 30a, 30b being opposite to the longitudinally extending side that foldably connects the bottom panel 10 and the end wall panels 30a, 30b. The respective end wall panel 30a, 30b and the associated outer end wall panel 90a, 90b is configured to form a respective double-walled end wall 290a, 290b when the blank is erected to form the package 200.

[0075] In the preferred embodiment, the bottom panel is provided with four recesses 11a, 11b, 11c, 11d, two at each longitudinal extending side and wherein each outer end wall panel 90a, 90b has two tabs 90a1, 90a2, 90b1, 90b2, i.e., in total four tabs, wherein the recesses 11a, 11b, 11c, 11d and tabs 90a1, 90a2, 90b1, 90b2 are mutually positioned as seen along the longitudinal direction such that the tabs 90a1, 90a2, 90b1, 90b2 are configured to be received in the recesses 11a, 11b, 11c, 11d when the blank is erected to form the package 200. In other embodiments there may be fewer or more tabs and recesses providing the same function. In another embodiment there may as an example only be one recess at each longitudinal extending side of the bottom panel and only one tab at each outer end wall panel.

[0076] The blank further comprises a first lid panel 40 connected to the first side wall panel 21 along a second transversely extending side 21b of the first side wall panel 21 being opposite the bottom panel 10. With being opposite the bottom panel means that the first side wall panel 21 is foldably connected to the bottom panel 10 along a first transversely extending side 10a of the first side wall panel and the first lid panel is foldably connected to the first side wall panel along the second transversely extending side 21b of the first side wall panel, wherein the first and second transversely extending sides of the first side wall panel are opposite to each other.

[0077] The blank further comprises a second lid panel 50 connected to the second side wall panel 22 along a transversely extending side 22a of the second side wall panel 22 being opposite the bottom panel 10. In such way that the second side wall panel 22 is foldably connected to the bottom panel 10 along a first transversely extending side 10b of the second side wall panel and the second lid panel 50 is foldably connected to the second side wall panel 22 along a second transversely extending side 22a of the second side wall panel 22, wherein the first and second transversely extending sides of the first side wall panel are opposite to each other.

[0078] The first lid panel 40 and the second lid panel 50 together have, as seen in a flat-laid state of the blank 1, a longitudinal extension being greater than a longitudinal

extension of the bottom panel 10 such that, when the blank 1 is erected into a package 200 and the first and second lid panels 40, 50 are folded towards each other to form a lid, the first lid panel 40 is configured to longitudinally overlap and extend on top of at least a portion of the second lid panel 50.

[0079] In the embodiment of Figure 1, the first lid panel 40 is configured to be adhesively connected to the second lid panel 50 when the blank is erected to form the package 200. Preferably, the blank 1 is provided with one or more adhesive strips 43 configured to adhesively connect the first lid panel 40 to the second lid panel 50. The blank 1 is in the disclosed embodiment provided with two preinstalled adhesive strips 43. The adhesive strips 43 may be positioned on only an inside surface of the first lid panel 40 or only on an outside surface of the second lid panel 50 or some on the inside surface of the first lid panel 40 and some on the outside surface of the second lid panel 50. The number of preinstalled adhesive strips may in other embodiments be fewer or more. The first lid panel may alternatively e.g., be adhesively connected to the second lid panel by providing a glue, such as a hot melt glue, between the first and second lid panels. However, preferably the adhesive connection is performed with the use of one or more adhesive strips. The respective adhesive strip is preferably preinstalled on a respective one of the panels and is preferably protected by a cover strip which covers the adhesive surface of the adhesive strip until the user intends to close the package, whereby the user removes the cover strip and exposes the adhesive surface such that the first and second lid panels may be adhesively connected to each other. With one or more adhesive strips 43 the first lid panel 40 may be easily attached to the second lid panel 50 which creates an easy solution for locking the package 200 by pressing the adhesive strips 43 of the first lid panel 40 against the second lid panel 50.

[0080] The first lid panel 40 of the preferred embodiment further is provided with a tear line 44 extending transversely across the first lid panel 40. Extend across is in this context intended to refer to an extension across the full width of the first lid panel 40 along the transverse direction. The tear tearing of the first lid panel 40 along the tear line 44 may be facilitated by the provision of a local weakening of the material, such as by the provision of a perforation or at least a tear initiating cut, and/or by the provision of a local strengthening, such as by the provision of a tear string. It may be noted that the local weakening and/or local strengthening need not extend across the full width of the first lid panel 40. However, preferably the local weakening and/or local strengthening extends at least along a major part of the transversal extension of the first lid panel. It is preferred that the local weakening and/or strengthening extends across the full width of the first lid panel.

[0081] In a preferred embodiment, the first lid panel 40 is adhesively connected to the second lid panel 50 at a first position 41 on the first lid panel 40, as seen along the

longitudinal direction L, and the tear line 44 is provided at a second position 42 on the first lid panel 40, as seen along the longitudinal direction, wherein the first position 41 is, compared to the second position 42, closer to a free transversely extending edge 45 of the first lid panel 40 such that tearing of the first lid panel 40 along the tear line 44 separates an end portion of the first lid panel 40 being adhesively connected to the second lid 50 panel from the remaining portion of the first lid panel 40 still being connected to the first side wall panel 21 such that the package is easily opened.

[0082] In a preferred embodiment, the first and/or the second lid panel 40, 50 is provided with a second preinstalled adhesive strip 43, which preferably still is protected by a cover strip, wherein the second adhesive strip 43 is, as seen along the longitudinal direction L, positioned where there still is an overlap between the first and second lid panels 40, 50 even though the first lid panel 40 has been reduced in length by being torn along the tear line 44. This second preinstalled adhesive strip 43 may e.g., be used for reclosing the package 200. This may e.g., be useful in case the package 200 is used for commercial applications where some of the goods often is returned to the original sender.

[0083] The blank further comprises two support panels 60a, 60b being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides 50c, 50d of the second lid panel 50. One of the two support panels 60a is foldably connected to the second lid panel 50 along a first longitudinally extending side 50c of the second lid panel 50 and the second of the two support panels 60b is foldably connected to a second longitudinally extending side 50d of the second lid panel 50, wherein the first and second longitudinally extending sides of the second lid panel are opposite to each other.

[0084] Each support panel 60a, 60b has, as seen in a flat-laid state of the blank 1, a transversal extension being equal to a transversal extension of the respective one of the end wall panels 30a, 30b, such that a transversely outer edge 60a1, 60b1 of the respective support panel 60a, 60b, as seen in a flat-laid state of the blank 1, is capable of extending to and abut an inner major surface 11 of the bottom panel 10 when the blank is erected to form the package 200.

[0085] The support panels 60a, 60b provide improved stability for the end walls 230a, 230b by providing an extra layer of material to the end walls. The support panels also provide improved stability for the second lid panel which in its turn give improved stability for the first lid panel by the support panels 60a, 60b abutting the inner major surface 11 of the bottom panel 10 when the blank is erected to form the package 200. The extra stability provided by the support panels gives extra protection from mechanical impact both against the end walls as well as against the lid. The stability of the lid also makes the package suitable for stacking and resistant to pressure against the lid.

[0086] The blank 1 of figure 1 further comprises two

additional support panels 70a, 70b being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides 40c, 40d of the first lid panel 40. One of the two additional support panels is foldably connected to the first lid panel along a first longitudinally extending side of the first lid panel and the other one of the two additional support panels is foldable connected to the first lid panel along a second longitudinally extending side of the first lid panel, wherein the first and second longitudinally extending side of the first lid panel are opposite to each other.

[0087] Each additional support panel 70a, 70b has, as seen in a flat-laid state of the blank 1, a transversal extension being equal to a transversal extension of the respective one of the end wall panels 30a, 30b, such that a transversely outer edge 70a1, 70b1 of the respective additional support panel 70a, 70b as seen in a flat-laid state of the blank 1, is capable of extending to and abut the inner major surface 11 of the bottom panel 10 when the blank is erected to form the package 200. With the two additional support panels abutting the inner major surface of the bottom panel 40 the package 200 will get further improved stability both during transportation and when stacked.

[0088] The blank of the preferred embodiment further comprises four corner panels 80a, 80b, 80c, 80d, each corner panel 80a, 80b, 80c, 80d being arranged on and extending transversely from a respective longitudinally extending side 21c, 21d, 22c, 22d of the respective side wall panel 21, 22.

[0089] Turning to Figures 2-4, different positions of the package 200 being erected from the blank 1 are disclosed. In figure 2, an embodiment of the package 200 in an open position is disclosed. In figure 3, the embodiment of the package 200 in a partly closed position is disclosed. In figure 4, the embodiment of the package 200 in a closed position is disclosed.

[0090] In the embodiment disclosed in the Figures, the panels of the blank 1 have been folded to form different parts of the package 200. The double-walled end walls 290a, 290b is formed by folding the end wall panel 30a, 30b and then folding the outer end wall panel 90a, 90b in such a way that the four tabs 90a1, 90a2, 90b1, 90b2 are received in the four recesses 11a, 11b, 11c, 11d of the bottom panel 10. By this each outer end wall panel 90a, 90b of the respective double-walled end wall 290a, 290b is secured in the bottom panel 10 and kept in its position without the use of any adhesive. When folding the double-walled end wall 290a, 290b the corner connection panels 80a, 80b, 80c, 80d may be arranged to be located between the respective end wall panel 30a, 30b and the associated outer end wall panel 90a, 90b. With the four recesses 11a, 11b, 11c, 11d and their respective tabs 90a1, 90a2, 90b1, 90b2 the double end wall 290a, 290b can be secured in the bottom panel 10, thereby aiding in keeping the double-walled end walls 290a, 290b in the closed double-folded position. With double-walled end wall 290a, 290b kept in position the corner connection

panels 80a, 80b, 80c, 80d will be locked between the end wall panel 30a, 30b and the outer end wall panel 90a, 90b which makes both the side wall 222, 223 and the double-walled end wall 290a, 290b to stay in the intended orthogonal position relative to the bottom panel 10 and relative to each other. The folded position of the end wall and the side wall is best disclosed in figure 2.

[0091] In the embodiment disclosed in the Figures, the second lid panel 50 is folded first to create a support for the first lid panel 40 which in turn creates the visual lid as show in in Figure 4. The support is secured by that, when the blank is erected to form the package 200, each support panel 60a, 60b is folded to be situated at an inside of the double end wall 290a, 290b formed by the end wall panels 30a, 30b and the outer end wall panels 90a, 90b, such that the respective support panel 60a, 60b extends with an outer major surface 60a2, 60b2 thereof along an inner major surface 30a1, 30b1 of the respective end wall panel 30a, 30b. This fold can be best seen in figure 2.

[0092] In the preferred embodiment, the additional support panels 70a, 70b is folded to be situated at the inside of the end walls 230a, 230b formed by the end wall panels 30a, 30b when the blank is erected to form the package 200, such that the respective additional support panel 70a, 70b extends with an outer major surface 70a2, 70b2 thereof along an inner major surface 30a1, 30b1 of the respective end wall panel 30a, 30b. This fold can be best seen in Figure 3.

[0093] With each support panel 60a, 60b and each additional support panel 70a, 70b situated inside of the end walls 290a, 290b the support panels and the additional support panel will be fixed in its position and stabilizing the first lid 40 and the second lid 50.

[0094] Figure 2 and figure 3 discloses that the respective support panel 60a, 60b and the associated additional support panel 70a, 70b may each be positioned, and may each have an extension as seen along the longitudinal direction, such that there is no overlap of respective support panel 60a, 60b and the associated additional support panel 70a, 70b when the blank 1 is erected to form the package 200. With each additional support panel 70a, 70b not overlapping their respective support panel 60a, 60b there will be no risk of these colliding with each other. Therefore, the blank 1 will be easy to erect to form the package. By securing that there is no overlap, it is possible that both the support panels 60a, 60b and the additional support panels 70a, 70b extend truly vertically from the respective lid panel 40, 50 to the inner major surface of the bottom panel 10, whereby it is possible to provide a package 200 in which both the support panels 60a, 60b and the additional support panels 70a, 70b are in the best position to be able to carry vertical load applied when the package 200 is stacked and when during the action of closing the package 200.

[0095] To secure that the support panels 60a, 60b are sufficiently strong, the longitudinal extension of the support panels 60a, 60b may be at least 50% of the long-

itudinal extension of the second lid panel 50, and preferably at least 90%. To achieve that there is no overlap of the support panels 60a, 60b and the additional support panels 70a, 70b the transversely outer edge 60a1, 60b1 of the respective support panel 60a, 60b configured to abut the inner major surface of the bottom panel 10 has preferably a longitudinal extension being about 40-80% of the longitudinal extension of the second lid panel 50.

[0096] It may in this context be noted that the transversely outer edge of the respective support panel 60a, 60b need not have the full longitudinal extension of the support panel 60a, 60b. In a preferred embodiment the support panels 60a, 60b extend along the full longitudinal extension of the second lid panel 50, at least as seen along the connection between the support panels 60a, 60b and the second lid panel 50. In a preferred embodiment the corner between the transversely outer and longitudinally extending edge and the transversely extending edge closest to the second side wall panel 22 is rounded or chamfered, whereby the transversely outer and longitudinally extending edge of the respective support panel abuts the inner major surface of the bottom panel along a length being about 40-80%

[0097] To further achieve that there is provided strong additional support panels 70a, 70b while still securing that there is no overlap of the support panels 60a, 60b and the additional support panels 70a, 70b, the longitudinal extension of the additional support panels 70a, 70b may be between 40% and 80% of the longitudinal extension of the first lid panel 40, and wherein preferably the transversely outer edge 70a1, 70b1 of the respective additional support panel 70a, 70b configured to abut the inner major surface of the bottom panel 10 has a longitudinal extension being about 30-70% of the longitudinal extension of the first lid panel 50.

[0098] It may in this context be noted that the transversely outer edge of the respective additional support panel 70a, 70b need not have the full longitudinal extension of the additional support panel 70a, 70b. In a preferred embodiment the additional support panels 70a, 70b extend along the full longitudinal extension of the first lid panel 40, at least as seen along the connection between the additional support panels 70a, 70b and the first lid panel 40. In a preferred embodiment the corner between the transversely outer and longitudinally extending edge and the transversely extending edge closest to the second side wall panel 22 is rounded or chamfered, whereby the transversely outer and longitudinally extending edge of the respective support panel abuts the inner major surface of the bottom panel along a length being about 30-70%.

[0099] In Figures 2 and 3, it is disclosed that the longitudinal extension of the second lid panel 50 is under 50% of the longitudinal extension of the bottom panel 10. To achieve both an efficient use of material as well as the support described above the longitudinal extension of the second lid panel 50 may be between 10% and 50% of the longitudinal extension of the bottom panel 10, and pre-

ferably between 20% and 40%. In the preferred interval a good balance between stability and usage of material is reached.

[0100] To make the package 200 easier to fold the longitudinal extension of the second lid panel 50 may be greater than a longitudinal extension of the second side wall panel 22, preferably between 120% and 200% of the longitudinal extension of the second side wall panel 22. By this there are no risk that the second lid panel 22 accidentally gets folded to be aligned with the second side wall panel 22.

[0101] It may be noted that preferably the first and the second side wall panels 21, 22 preferably have the same, or alternatively expressed corresponding, longitudinal extensions, such that the distance between the bottom panel 10 and the lid panels 40, 50, i.e., the height of the package 200, is the same along the longitudinal direction. In this context, it may also be noted that the end wall panels 30a, 30b preferably have the same, or alternatively expressed corresponding, transversal extensions, such that the distance between the bottom 10 and the lid panels 40, 50, i.e., the height of the package 200, is the same along the transversal direction.

[0102] The longitudinal extension of the first lid panel 40 may be greater than the longitudinal extension of the second lid panel 50, preferably between 200% and 600% in such way that the first lid panel 40 covers the second lid panel 50 at least partly when the blank 1 is folded to the package 200. The longitudinal extension of the first lid panel 40 may be at least 60% of a longitudinal extension of the bottom panel 10, and preferably 100%, or at least close to 100%, which is best disclosed in Figure 4.

[0103] It may be noted that 100% may in practice be a few millimetres shorter such that it is secured that the first lid panel does not extend past the plane of outer major surface of the second end wall.

[0104] With the longitudinal extension of the first lid panel being at least 60% of the longitudinal extension of the bottom panel the first lid panel will get support from the second lid. If an overlap of the first lid panel over the second lid panel would be too small, the support from the second lid will be too weak. With a longitudinal extension of the first lid panel being 100% of the longitudinal extension of the bottom panel the first lid will create a smooth top surface of the package which facilitate the stability for the package during the transport of the stacked packages.

[0105] Even though it is preferred that the blank 1 configured to be erected into a package 200 is designed in accordance with the disclosure in the detailed disclosure of preferred embodiments and the appended drawings, it should be noted that a specific preferred embodiment of a specific component does not necessarily have to be combined with a specific embodiment of another component. Thus, advantages associated with a specific embodiment, including one or more features, of a specific component may be accomplished even though the other components are designed in accordance with the more

general disclosure under the summary of the invention rather than being defined in accordance with the specific embodiment disclosed in the detailed description.

[0106] The blank 1 configured to be erected into a package 200 may, as an example, be designed without the additional support panels 70a, 70b or without the outer end wall panels 90a, 90b and without both of them. The blank 1 may include extra tear lines and optionally also include extra adhesive strips.

[0107] It is contemplated that there are numerous modifications of the embodiments described herein, which are still within the scope of the invention as defined by the appended claims.

[0108] Additionally, variations to the disclosed embodiments can be understood and effected by the skilled person in practicing the claimed invention, from a study of the drawings, the disclosure, and the appended claims. In the claims, the word "comprising" does not exclude other elements or steps, and the indefinite article "a" or "an" does not exclude a plurality. The mere fact that certain measures are recited in mutually different dependent claims does not indicate that a combination of these measured cannot be used to advantage.

Claims

1. A blank (1) configured to be erected to form a package (200), the blank (1) comprising

a bottom panel (10),
 a first side wall panel (21) and a second side wall panel (22) being oppositely arranged on a respective one of two oppositely arranged transversely extending sides (10a, 10b) of the bottom panel (10) and being configured to form side walls (221, 222) of the package (200),
 two end wall panels (30a, 30b) being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides (10c, 10d) of the bottom panel (10) and being configured to form end walls (230a, 230b) of the package (200),
 a first lid panel (40) connected to the first side wall panel (21) along a transversely extending side (21a) of the first side wall panel (21) being opposite the bottom panel (10),
 a second lid panel (50) connected to the second side wall panel (22) along a transversely extending side (22a) of the second side wall panel (22) being opposite the bottom panel (10),
 wherein the first lid panel (40) and the second lid panel (50) together have, as seen in a flat-laid state of the blank (1), a longitudinal extension being greater than a longitudinal extension of the bottom panel (10) such that, when the blank (1) is erected into a package (200) and the first and second lid panels (40, 50) are folded to-

wards each other to form a lid, the first lid panel (40) is configured to longitudinally overlap and extend on top of at least a portion of the second lid panel (50), **characterised in that** the blank is further comprising

two support panels (60a, 60b) being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides (50c, 50d) of the second lid panel (50),

wherein each support panel (60a, 60b) has, as seen in a flat-laid state of the blank (1), a transversal extension being equal to a transversal extension of the respective one of the end wall panels (30a, 30b), such that a transversely outer edge (60a1, 60b1) of the respective support panel (60a, 60b), as seen in a flat-laid state of the blank (1), is capable of extending to and abut an inner major surface (11) of the bottom panel (10) when the blank is erected to form the package (200).

2. The blank (1) according to claim 1, wherein each support panel (60a, 60b) is configured to be situated at an inside of the end wall (230a, 230b) formed by the end wall panels (30a, 30b) when the blank is erected to form the package (200), such that the respective support panel (60a, 60b) extends with an outer major surface (60a2, 60b2) thereof along an inner major surface (30a1, 30b1) of the respective end wall panel (30a, 30b).
3. The blank (1) according to claim 1 or 2, wherein the first lid panel (40) is configured to be adhesively connected to the second lid panel (50) when the blank is erected to form the package (200), preferably by the blank (1) being provided with one or more adhesive strips (43) configured to adhesively connect the first lid panel (40) to the second lid panel (50).
4. The blank (1) according to any one of the preceding claims, wherein the first lid panel (40) is provided with a tear line (44) extending transversely across the first lid panel (40).
5. The blank (1) according to any one of the preceding claims, further comprising

two additional support panels (70a, 70b) being oppositely arranged on a respective one of two oppositely arranged longitudinally extending sides (40c, 40d) of the first lid panel (40), wherein each additional support panel (70a, 70b) has, as seen in a flat-laid state of the blank (1), a transversal extension being equal to a transversal extension of the respective one of the end wall panels (30a, 30b), such that a transversely outer edge (70a1, 70b1) of the

- respective additional support panel (70a, 70b) as seen in a flat-laid state of the blank (1), is capable of extending to and about the inner major surface (11) of the bottom panel (10) when the blank is erected to form the package (200). 5
6. The blank (1) according to claim 5, wherein the respective support panel (60a, 60b) and the associated additional support panel (70a, 70b) are each positioned and have each an extension as seen along the longitudinal direction such that there is no overlap of respective support panel (60a, 60b) and the associated additional support panel (70a, 70b) when the blank (1) is erected to form the package (200). 10
7. The blank (1) according to claim 5 or 6, wherein the additional support panels (70a, 70b) are each configured to be situated at the inside of the end walls (230a, 230b) formed by the end wall panels (30a, 30b) when the blank is erected to form the package (200), such that the respective additional support panel (70a, 70b) extends with an outer major surface (70a2, 70b2) thereof along an inner major surface (30a1, 30b1) of the respective end wall panel (30a, 30b). 20
8. The blank (1) according to any of the preceding claims, wherein a longitudinal extension of the first lid panel (40) is at least 60% of a longitudinal extension of the bottom panel (10), and preferably 100%. 30
9. The blank (1) according to any of the preceding claims, wherein a longitudinal extension of the second lid panel (50) is between 10% and 50% of the longitudinal extension of the bottom panel (10), and preferably between 20% and 40%. 35
10. The blank (1) according to any of the preceding claims, wherein the longitudinal extension of the second lid panel (50) is greater than a longitudinal extension of the second side wall panel (22), preferably between 120% and 200%. 40
11. The blank (1) according to any one of the preceding claims, wherein the longitudinal extension of the first lid panel (40) is greater than the longitudinal extension of the second lid panel (50), preferably between 200% and 600%. 45
12. The blank (1) according to any one of the preceding claims, wherein a longitudinal extension of the support panels (60a, 60b) is at least 50% of the longitudinal extension of the second lid panel (50), and preferably at least 90%, wherein preferably the transversely outer edge (60a1, 60b1) of the respective support panel (60a, 60b) configured to abut the inner major surface of the bottom panel (10) has a longitudinal extension being about 40-80% of the longitudinal extension of the second lid panel (50). 50
13. The blank (1) according to any one of claims 6-12 when dependent upon claim 5, wherein a longitudinal extension of the additional support panels (70a, 70b) is between 40% and 80% of the longitudinal extension of the first lid panel (40), and wherein preferably the transversely outer edge (70a1, 70b1) of the respective additional support panel (70a, 70b) configured to abut the inner major surface of the bottom panel (10) has a longitudinal extension being about 30-70% of the longitudinal extension of the first lid panel (50). 55
14. The blank according to any one of the preceding claims, the blank further comprising four corner panels (80a, 80b, 80c, 80d), each corner panel (80a, 80b, 80c, 80d) being arranged on and extending transversely from a respective longitudinally extending side (21c, 21d, 22c, 22d) of the respective side wall panel (21, 22).
15. The blank according to any of the preceding claims, the blank further comprising two outer end wall panels (90a, 90b) each connected to the end wall panels (30a, 30b) along a respective longitudinally extending side (30ac, 30bd) of the respective end wall panels (30a, 30b) being opposite the bottom panel (10), wherein the respective end wall panel (30a, 30b) and the associated outer end wall panel (90a, 90b) is configured to form a respective double-walled end wall (290a, 290b) when the blank is erected to form the package (200), wherein preferably the respective outer end wall panel (90a, 90b) is arranged to form an inside of the respective double-walled end wall (290a, 290b).
16. The blank according to claims 14 and 15, wherein the corner connection panels (80a, 80b, 80c, 80d) are arranged to be located between the respective end wall panel (30a, 30b) and the associated outer end wall panel (90a, 90b) forming the respective double-walled end wall (290a, 290b) when the blank is erected to form the package (200).
17. The blank according to claim 15 or 16, wherein the respective outer end wall panel (90a, 90b) is arranged to form an inside of the respective double-walled end wall (290a, 290b), and wherein the bottom panel is provided with at least two recesses (11a, 11b, 11c, 11d), at least

one at each longitudinal extending side and wherein each outer end wall panel (90a, 90b) has at least one tab (90a1, 90a2, 90b1, 90b2), wherein the respective recess (11a, 11b, 11c, 11d) and the respective tab (90a1, 90a2, 90b1, 90b2) are mutually positioned as seen along the longitudinal direction such that the tabs (90a1, 90a2, 90b1, 90b2) are configured to be received in the recesses (11a, 11b, 11c, 11d) when the blank is erected to form the package (200).

Patentansprüche

1. Zuschnitt (1), der dazu eingerichtet ist, aufgerichtet zu werden, um eine Verpackung (200) zu bilden, der Zuschnitt (1) umfassend

eine Bodenplatte (10),
 eine erste Seitenwandplatte (21) und eine zweite Seitenwandplatte (22), die gegenüberliegend an einer entsprechenden einen von zwei gegenüberliegend angeordneten, sich quer erstreckenden Seiten (10a, 10b) der Bodenplatte (10) angeordnet und dazu eingerichtet sind, Seitenwände (221, 222) der Verpackung (200) zu bilden,
 zwei Stirnwandplatten (30a, 30b), die gegenüberliegend an einer entsprechenden einen von zwei gegenüberliegend angeordneten, sich längs erstreckenden Seiten (10c, 10d) der Bodenplatte (10) angeordnet und dazu eingerichtet sind, Stirnwände (230a, 230b) der Verpackung (200) zu bilden,
 eine erste Deckelplatte (40), die mit der ersten Seitenwandplatte (21) entlang einer sich quer erstreckenden Seite (21a) der ersten Seitenwandplatte (21), die der Bodenplatte (10) gegenüberliegt, verbunden ist,
 eine zweite Deckelplatte (50), die mit der zweiten Seitenwandplatte (22) entlang einer sich quer erstreckenden Seite (22a) der zweiten Seitenwandplatte (22), die der Bodenplatte (10) gegenüberliegt, verbunden ist,
 wobei die erste Deckelplatte (40) und die zweite Deckelplatte (50) zusammen, gesehen in einem flachliegenden Zustand des Zuschnitts (1), eine Längserstreckung aufweisen, die größer ist als eine Längserstreckung der Bodenplatte (10), sodass, wenn der Zuschnitt (1) zu einer Verpackung (200) aufgerichtet wird und die erste und zweite Deckelplatte (40, 50) zueinander gefaltet werden, um einen Deckel zu bilden, die erste Deckelplatte (40) dazu eingerichtet ist, zumindest einen Abschnitt der zweiten Deckelplatte (50) in Längsrichtung zu überlappen und sich über diesen zu erstrecken, **dadurch gekennzeichnet, dass** der Zuschnitt ferner um-

fasst

zwei Stützplatten (60a, 60b), die einander gegenüberliegend an einer entsprechenden einen von zwei einander gegenüberliegenden, sich längs erstreckenden Seiten (50c, 50d) der zweiten Deckelplatte (50) angeordnet sind, wobei jede Stützplatte (60a, 60b), gesehen in einem flachliegenden Zustand des Zuschnitts (1), eine Quererstreckung aufweist, die gleich einer Quererstreckung der entsprechenden einen der Stirnwandplatten (30a, 30b) ist, sodass eine querverlaufende Außenkante (60a1, 60b1) der entsprechenden Stützplatte (60a, 60b), gesehen in einem flachliegenden Zustand des Zuschnitts (1), in der Lage ist, sich zu einer inneren Hauptfläche (11) der Bodenplatte (10) zu erstrecken und daran anzuliegen, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden.

2. Zuschnitt (1) nach Anspruch 1, wobei jede Stützplatte (60a, 60b) dazu eingerichtet ist, sich an einer Innenseite der Stirnwand (230a, 230b) zu befinden, die durch die Stirnwandplatten (30a, 30b) gebildet wird, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden, sodass sich die entsprechende Stützplatte (60a, 60b) mit einer äußeren Hauptfläche (60a2, 60b2) davon entlang einer inneren Hauptfläche (30a1, 30b1) der entsprechenden Stirnwandplatte (30a, 30b) erstreckt.
3. Zuschnitt (1) nach Anspruch 1 oder 2, wobei die erste Deckelplatte (40) dazu eingerichtet ist mit der zweiten Deckelplatte (50) klebend verbunden zu werden, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden, bevorzugt dadurch, dass Zuschnitt (1) mit einem oder mehreren Klebestreifen (43) versehen ist, die dazu eingerichtet sind, die erste Deckelplatte (40) mit der zweiten Deckelplatte (50) klebend zu verbinden.
4. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei die erste Deckelplatte (40) mit einer sich quer über die erste Deckelplatte (40) erstreckenden Aufreißlinie (44) versehen ist.
5. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, ferner umfassend

zwei zusätzliche Stützplatten (70a, 70b), die gegenüberliegend an einer entsprechenden einen von zwei gegenüberliegend angeordneten, sich längs erstreckenden Seiten (40c, 40d) der ersten Deckelplatte (40) angeordnet sind, wobei jede zusätzliche Stützplatte (70a, 70b), gesehen in einem flachliegenden Zustand des Zuschnitts (1), eine Quererstreckung aufweist, die gleich einer Quererstreckung der entsprech-

- enden einen der Stirnwandplatten (30a, 30b) ist, sodass eine querverlaufende Außenkante (70a1, 70b1) der entsprechenden zusätzlichen Stützplatte (70a, 70b), gesehen in einem flachliegenden Zustand des Zuschnitts (1), in der Lage ist, sich zu der inneren Hauptfläche (11) der Bodenplatte (10) zu erstrecken und daran anzuliegen, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden.
- 5
- 10
6. Zuschnitt (1) nach Anspruch 5, wobei die entsprechende Stützplatte (60a, 60b) und die zugehörige zusätzliche Stützplatte (70a, 70b) jeweils positioniert sind und jeweils eine Erstreckung gesehen entlang der Längsrichtung aufweisen, sodass es keine Überlappung der entsprechenden Stützplatte (60a, 60b) und der zugehörigen zusätzlichen Stützplatte (70a, 70b) gibt, wenn der Zuschnitt (1) aufgerichtet wird, um die Verpackung (200) zu bilden.
- 15
- 20
7. Zuschnitt (1) nach Anspruch 5 oder 6, wobei die zusätzlichen Stützplatten (70a, 70b) jeweils dazu eingerichtet sind, sich an der Innenseite der Stirnwände (230a, 230b) zu befinden, die durch die Stirn- wandplatten (30a, 30b) gebildet werden, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden, sodass sich die entsprechende zusätzliche Stützplatte (70a, 70b) mit einer äußeren Hauptfläche (70a2, 70b2) davon entlang einer inneren Hauptfläche (30a1, 30b1) der entsprechenden Stirn- wandplatte (30a, 30b) erstreckt.
- 25
- 30
8. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei eine Längserstreckung der ersten Deckelplatte (40) mindestens 60 %, bevorzugt 100 %, einer Längserstreckung der Bodenplatte (10) beträgt.
- 35
9. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei eine Längserstreckung der zweiten Deckelplatte (50) zwischen 10 % und 50 % der Längserstreckung der Bodenplatte (10), bevorzugt zwischen 20 % und 40 %, beträgt.
- 40
10. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei die Längserstreckung der zweiten Deckelplatte (50) größer ist als eine Längserstreckung der zweiten Seitenwandplatte (22), bevorzugt zwischen 120 % und 200 %.
- 45
- 50
11. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei die Längserstreckung der ersten Deckelplatte (40) größer ist als die Längserstreckung der zweiten Deckelplatte (50), bevorzugt zwischen 200 % und 600 %.
- 55
12. Zuschnitt (1) nach einem der vorhergehenden Ansprüche, wobei eine Längserstreckung der Stütz-
platten (60a, 60b) mindestens 50 % der Längser-
streckung der zweiten Deckelplatte (50) und bevor-
zugt mindestens 90 % beträgt, wobei bevorzugt die
querverlaufende Außenkante (60a1, 60b1) der ent-
sprechenden Stützplatte (60a, 60b), die dazu einge-
richtet ist, an der inneren Hauptfläche der Boden-
platte (10) anzuliegen, eine Längserstreckung auf-
weist, die etwa 40-80 % der Längserstreckung der
zweiten Deckelplatte (50) beträgt.
13. Zuschnitt (1) nach einem der Ansprüche 6-12 in
Abhängigkeit von Anspruch 5, wobei eine Längser-
streckung der zusätzlichen Stützplatten (70a, 70b)
zwischen 40 % und 80 % der Längserstreckung der
ersten Deckelplatte (40) beträgt und wobei bevor-
zugt die querverlaufende Außenkante (70a1, 70b1)
der entsprechenden zusätzlichen Stützplatte (70a,
70b), die dazu eingerichtet ist, an der inneren Haupt-
fläche der Bodenplatte (10) anzuliegen, eine Längs-
erstreckung von etwa 30-70 % der Längserstre-
ckung der ersten Deckelplatte (50) aufweist.
14. Zuschnitt nach einem beliebigen der vorhergehenden
Ansprüche, der Zuschnitt ferner umfassend
vier Eckplatten (80a, 80b, 80c, 80d), wobei jede
Eckplatte (80a, 80b, 80c, 80d) an einer entsprechen-
den sich längs erstreckenden Seite (21c, 21d,
22c, 22d) der entsprechenden Seitenwandplatte
(21, 22) angeordnet ist und sich querverlaufend
von dieser erstreckt.
15. Zuschnitt nach einem der vorhergehenden Ansprü-
che, der Zuschnitt ferner umfassend
zwei äußere Stirnwandplatten (90a, 90b), die
jeweils mit den Stirnwandplatten (30a, 30b) ent-
lang einer entsprechenden sich längs erstreck-
enden Seite (30ac, 30bd) der entsprechenden
Stirnwandplatten (30a, 30b) verbunden sind, die
der Bodenplatte (10) gegenüberliegt,
wobei die entsprechende Stirnwandplatte (30a,
30b) und die zugehörige äußere Stirnwandplat-
te (90a, 90b) dazu eingerichtet sind, eine ent-
sprechende doppelwandige Stirnwand (290a,
290b) zu bilden, wenn der Zuschnitt aufgerichtet
wird, um die Verpackung (200) zu bilden,
wobei bevorzugt die entsprechende äußere
Stirnwandplatte (90a, 90b) angeordnet ist, um
eine Innenseite der entsprechenden doppel-
wandigen Stirnwand (290a, 290b) zu bilden.
16. Zuschnitt nach Anspruch 14 und 15, wobei die Eck-
verbindungsplatten (80a, 80b, 80c, 80d) angeordnet
sind, um zwischen der entsprechenden Stirn-
wandplatte (30a, 30b) und der zugehörigen äußeren Stirn-
wandplatte (90a, 90b), die die entsprechende dop-
pelwandige Stirnwand (290a, 290b) bilden, ange-
ordnet zu sein, wenn der Zuschnitt aufgerichtet wird,

um die Verpackung (200) zu bilden.

17. Zuschnitt nach Anspruch 15 oder 16, wobei die entsprechende äußere Stirnwandplatte (90a, 90b) angeordnet ist, um eine Innenseite der entsprechenden doppelwandigen Stirnwand (290a, 290b) zu bilden, und

wobei die Bodenplatte mit mindestens zwei Aussparungen (11a, 11b, 11c, 11d), zumindest einer an jeder sich längs erstreckenden Seite, versehen ist und wobei jede äußere Stirnwandplatte (90a, 90b) mindestens eine Lasche (90a1, 90a2, 90b1, 90b2) aufweist,

wobei die entsprechende Aussparung (11a, 11b, 11c, 11d) und die entsprechende Lasche (90a1, 90a2, 90b1, 90b2) entlang der Längsrichtung gesehen gemeinsam positioniert sind, sodass die Laschen (90a1, 90a2, 90b1, 90b2) dazu eingerichtet sind, in den Aussparungen (11a, 11b, 11c, 11d) aufgenommen zu werden, wenn der Zuschnitt aufgerichtet wird, um die Verpackung (200) zu bilden.

Revendications

1. Ébauche (1) configurée pour être montée de manière à former un emballage (200), l'ébauche (1) comprenant

un panneau inférieur (10),

un premier panneau de paroi latérale (21) et un deuxième panneau de paroi latérale (22) étant agencés de manière opposée sur un respectif parmi deux côtés agencés de manière opposée s'étendant transversalement (10a, 10b) du panneau inférieur (10) et étant configurés pour former des parois latérales (221, 222) de l'emballage (200),

deux panneaux de paroi d'extrémité (30a, 30b) étant agencés de manière opposée sur un respectif parmi deux côtés agencés de manière opposée s'étendant longitudinalement (10c, 10d) du panneau inférieur (10) et étant configurés pour former des parois d'extrémité (230a, 230b) de l'emballage (200),

un premier panneau de couvercle (40) relié au premier panneau de paroi latérale (21) le long d'un côté s'étendant transversalement (21a) du premier panneau de paroi latérale (21) étant opposé au panneau inférieur (10),

un deuxième panneau de couvercle (50) relié au deuxième panneau de paroi latérale (22) le long d'un côté s'étendant transversalement (22a) du deuxième panneau de paroi latérale (22) étant opposé au panneau inférieur (10),

dans laquelle le premier panneau de couvercle

(40) et le deuxième panneau de couvercle (50) ensemble ont, vus dans un état plat de l'ébauche (1), une extension longitudinale qui est supérieure à une extension longitudinale du panneau inférieur (10) de telle sorte que, lorsque l'ébauche (1) est montée en un emballage (200) et les premier et deuxième panneaux de couvercle (40, 50) sont pliés l'un vers l'autre pour former un couvercle, le premier panneau de couvercle (40) est configuré pour chevaucher longitudinalement et s'étendre sur au moins une portion du deuxième panneau de couvercle (50), **caractérisé en ce que** l'ébauche comprend en outre

deux panneaux de support (60a, 60b) étant agencés de manière opposée sur un respectif parmi deux côtés agencés de manière opposée s'étendant longitudinalement (50c, 50d) du deuxième panneau de couvercle (50), dans laquelle chaque panneau de support (60a, 60b) a, vu dans un état plat de l'ébauche (1), une extension transversale qui est égale à une extension transversale du respectif parmi les deux panneaux de paroi d'extrémité (30a, 30b), de telle sorte qu'un bord extérieur (60a1, 60b1) du panneau de support (60a, 60b) respectif, vu dans un état plat de l'ébauche (1), est capable de s'étendre vers une surface principale intérieure (11) du panneau inférieur (10), et de buter contre celle-ci, lorsque l'ébauche est montée de manière à former l'emballage (200).

2. Ébauche (1) selon la revendication 1, dans laquelle chaque panneau de support (60a, 60b) est configuré pour être situé au niveau d'un intérieur de la paroi d'extrémité (230a, 230b) formée par les panneaux de paroi d'extrémité (30a, 30b) lorsque l'ébauche est montée pour former l'emballage (200), de sorte que le panneau de support (60a, 60b) respectif s'étend avec une surface principale extérieure (60a2, 60b2) de celui-ci le long d'une surface principale intérieure (30a1, 30b1) du panneau de paroi d'extrémité (30a, 30b) respectif.

3. Ébauche (1) selon la revendication 1 ou 2, dans laquelle le premier panneau de couvercle (40) est configuré pour être relié de manière adhésive au deuxième panneau de couvercle (50) lorsque l'ébauche est montée de manière à former l'emballage (200), de préférence par le fait que l'ébauche (1) est munie d'une ou plusieurs bandes adhésives (43) configurées pour relier de manière adhésive le premier panneau de couvercle (40) au deuxième panneau de couvercle (50).

4. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle le premier panneau de couvercle (40) est muni d'une ligne de déchirure

- (44) s'étendant transversalement d'un bout à l'autre du premier panneau de couvercle (40).
5. Ébauche (1) selon l'une quelconque des revendications précédentes, comprenant en outre
- deux panneaux de support supplémentaires (70a, 70b) étant agencés de manière opposée sur un respectif parmi deux côtés agencés de manière opposée s'étendant longitudinalement (40c, 40d) du premier panneau de couvercle (40), dans laquelle chaque panneau de support supplémentaire (70a, 70b) a, vu dans un état plat de l'ébauche (1), une extension transversale qui est égale à une extension transversale du respectif parmi les deux panneaux de paroi d'extrémité (30a, 30b), de telle sorte qu'un bord extérieur (70a1, 70b1) du panneau de support supplémentaire (70a, 70b) respectif, vu dans un état plat de l'ébauche (1), est capable de s'étendre vers la surface principale intérieure (11) du panneau inférieur (10), et de buter contre celle-ci, lorsque l'ébauche est montée de manière à former l'emballage (200).
6. Ébauche (1) selon la revendication 5, dans laquelle le panneau de support (60a, 60b) respectif et le panneau de support supplémentaire (70a, 70b) associé sont chacun positionnés et ont chacun une extension, vue le long de la direction longitudinale, de telle sorte qu'il n'y a pas de chevauchement du panneau de support (60a, 60b) respectif et du panneau de support supplémentaire (70a, 70b) associé lorsque l'ébauche (1) est montée de manière à former l'emballage (200).
7. Ébauche (1) selon la revendication 5 ou 6, dans laquelle les panneaux de support supplémentaires (70a, 70b) sont chacun configurés pour être situés à l'intérieur des parois d'extrémité (230a, 230b) formées par les panneaux de paroi d'extrémité (30a, 30b) lorsque l'ébauche est montée de manière à former l'emballage (200), de sorte que le panneau de support supplémentaire (70a, 70b) respectif s'étend avec une surface principale extérieure (70a2, 70b2) de celui-ci le long d'une surface principale intérieure (30a1, 30b1) du panneau de paroi d'extrémité (30a, 30b) respectif.
8. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle une extension longitudinale du premier panneau de couvercle (40) représente au moins 60 % d'une extension longitudinale du panneau inférieur (10), et de préférence 100 %.
9. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle une extension longitudinale du deuxième panneau de couvercle (50) représente entre 10 % et 50 % de l'extension longitudinale du panneau inférieur (10), et de préférence entre 20 % et 40 %.
10. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle l'extension longitudinale du deuxième panneau de couvercle (50) est supérieure à une extension longitudinale du deuxième panneau de paroi latérale (22), de préférence entre 120 % et 200 %.
11. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle l'extension longitudinale du premier panneau de couvercle (40) est supérieure à l'extension longitudinale du deuxième panneau de couvercle (50), de préférence entre 200 % et 600 %.
12. Ébauche (1) selon l'une quelconque des revendications précédentes, dans laquelle une extension longitudinale des panneaux de support (60a, 60b) représente au moins 50 % de l'extension longitudinale du deuxième panneau de couvercle (50), et de préférence au moins 90 %, dans laquelle de préférence le bord transversalement extérieur (60a1, 60b1) du panneau de support (60a, 60b) respectif configuré pour venir en butée contre la surface principale intérieure du panneau inférieur (10) présente une extension longitudinale représentant environ 40 à 80 % de l'extension longitudinale du deuxième panneau de couvercle (50).
13. Ébauche (1) selon l'une quelconque des revendications 6 à 12 lorsqu'elles dépendent de la revendication 5, dans laquelle une extension longitudinale des panneaux de support supplémentaires (70a, 70b) représente entre 40 % et 80 % de l'extension longitudinale du premier panneau de couvercle (40), et dans laquelle, de préférence, le bord transversalement extérieur (70a1, 70b1) du panneau de support supplémentaire (70a, 70b) respectif configuré pour venir en butée contre la surface principale intérieure du panneau inférieur (10) présente une extension longitudinale représentant environ 30 à 70 % de l'extension longitudinale du premier panneau de couvercle (50).
14. Ébauche selon l'une quelconque des revendications précédentes, l'ébauche comprenant en outre quatre panneaux de coin (80a, 80b, 80c, 80d), chaque panneau de coin (80a, 80b, 80c, 80d) étant agencé sur un côté s'étendant longitudinalement (21c, 21d, 22c, 22d) respectif du panneau de paroi latérale (21, 22) respectif, et s'étendant transversalement depuis celui-ci.

15. Ébauche selon l'une quelconque des revendications précédentes, l'ébauche comprenant en outre

deux panneaux de paroi d'extrémité extérieurs (90a, 90b) reliés chacun aux panneaux de paroi d'extrémité (30a, 30b) le long d'un côté s'étendant longitudinalement (30ac, 30bd) respectif des panneaux de paroi d'extrémité (30a, 30b) respectifs qui sont opposés au panneau inférieur (10),
 dans laquelle le panneau de paroi d'extrémité (30a, 30b) respectif et le panneau de paroi d'extrémité extérieur (90a, 90b) associé sont configurés pour former une paroi d'extrémité à double paroi (290a, 290b) respective lorsque l'ébauche est montée de manière à former l'emballage (200),
 dans laquelle de préférence le panneau de paroi d'extrémité extérieur (90a, 90b) respectif est agencé pour former un intérieur de la paroi d'extrémité à double paroi (290a, 290b) respective.

16. Ébauche selon les revendications 14 et 15, dans laquelle les panneaux de liaison de coin (80a, 80b, 80c, 80d) sont agencés pour être situés entre le panneau de paroi d'extrémité (30a, 30b) respectif et le panneau de paroi d'extrémité extérieur (90a, 90b) respectif formant la paroi d'extrémité à double paroi (290a, 290b) respective lorsque l'ébauche est montée de manière à former l'emballage (200).

17. Ébauche selon la revendication 15 ou 16, dans laquelle le panneau de paroi d'extrémité extérieur (90a, 90b) respectif est agencé pour former un intérieur de la paroi d'extrémité à double paroi (290a, 290b) respective, et

dans laquelle le panneau inférieur est muni d'au moins deux évidements (11a, 11b, 11c, 11d), au moins un sur chaque côté s'étendant longitudinalement et dans laquelle chaque panneau de paroi d'extrémité extérieur (90a, 90b) a au moins une languette (90a1, 90a2, 90b1, 90b2),
 dans laquelle l'évidement (11a, 11b, 11c, 11d) respectif et la languette (90a1, 90a2, 90b1, 90b2) respective sont mutuellement positionnés, vus le long de la direction longitudinale, de sorte que les languettes (90a1, 90a2, 90b1, 90b2) sont configurées pour être reçues dans les évidements (11a, 11b, 11c, 11d) lorsque l'ébauche est montée de manière à former l'emballage (200).

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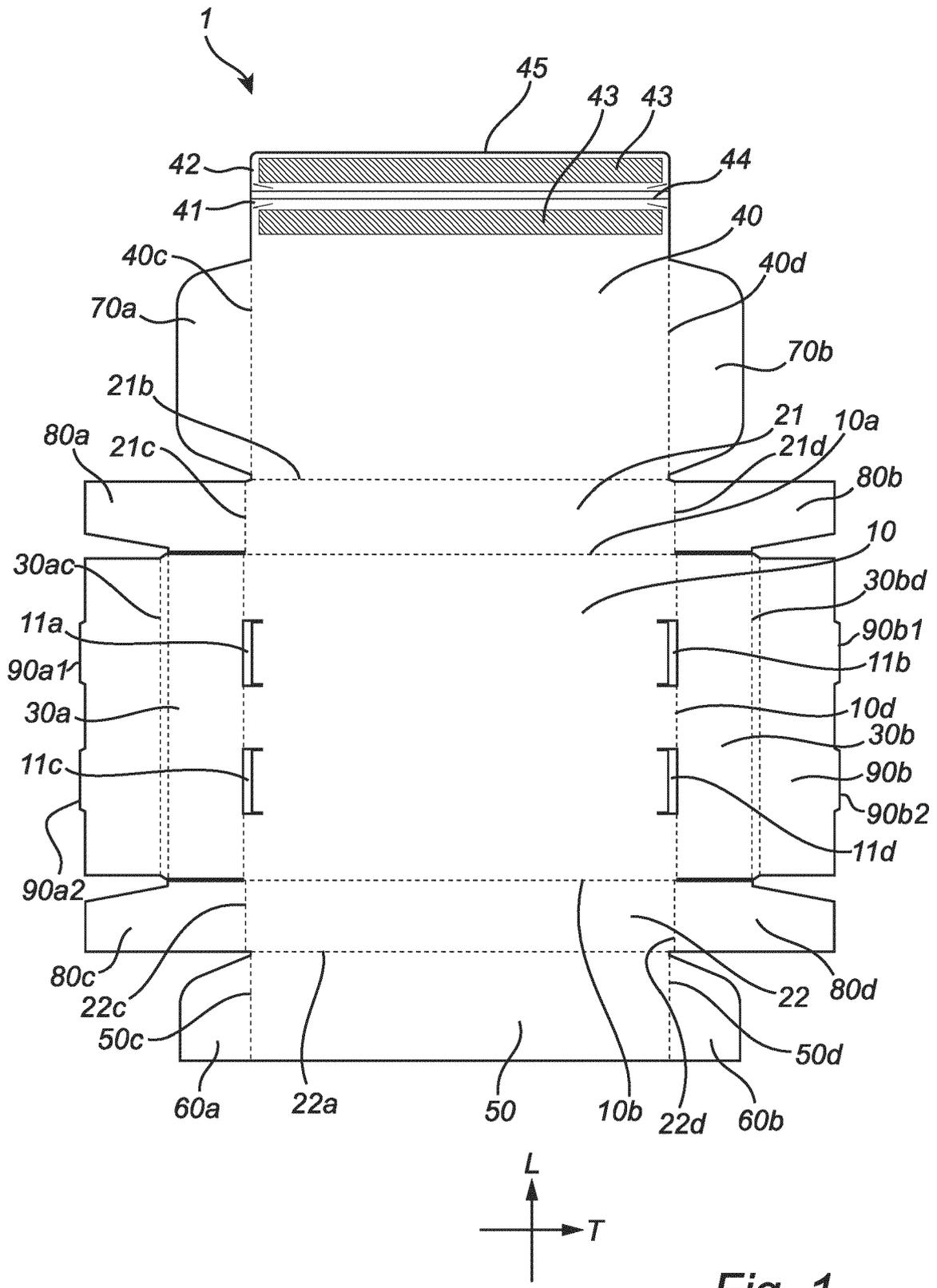
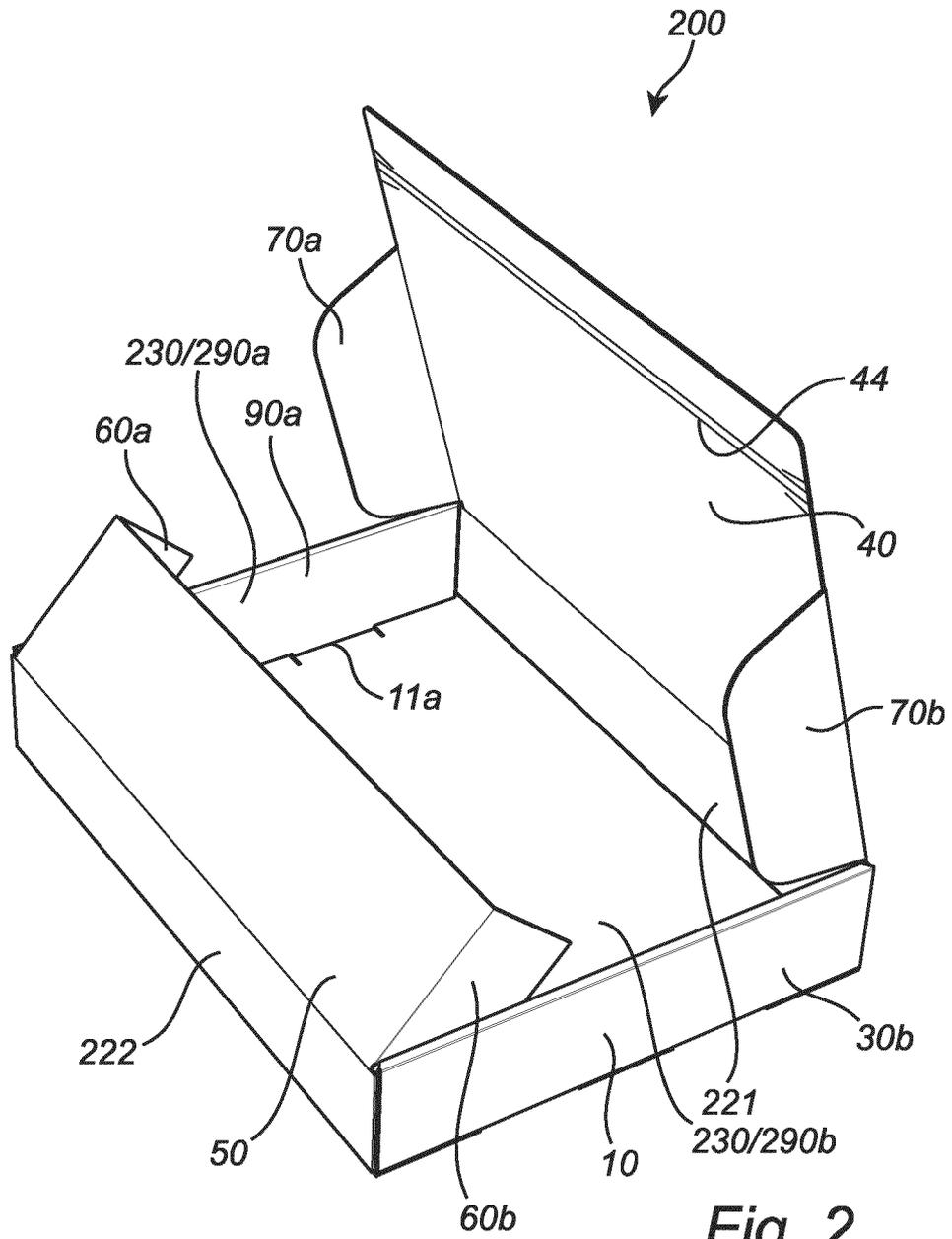


Fig. 1



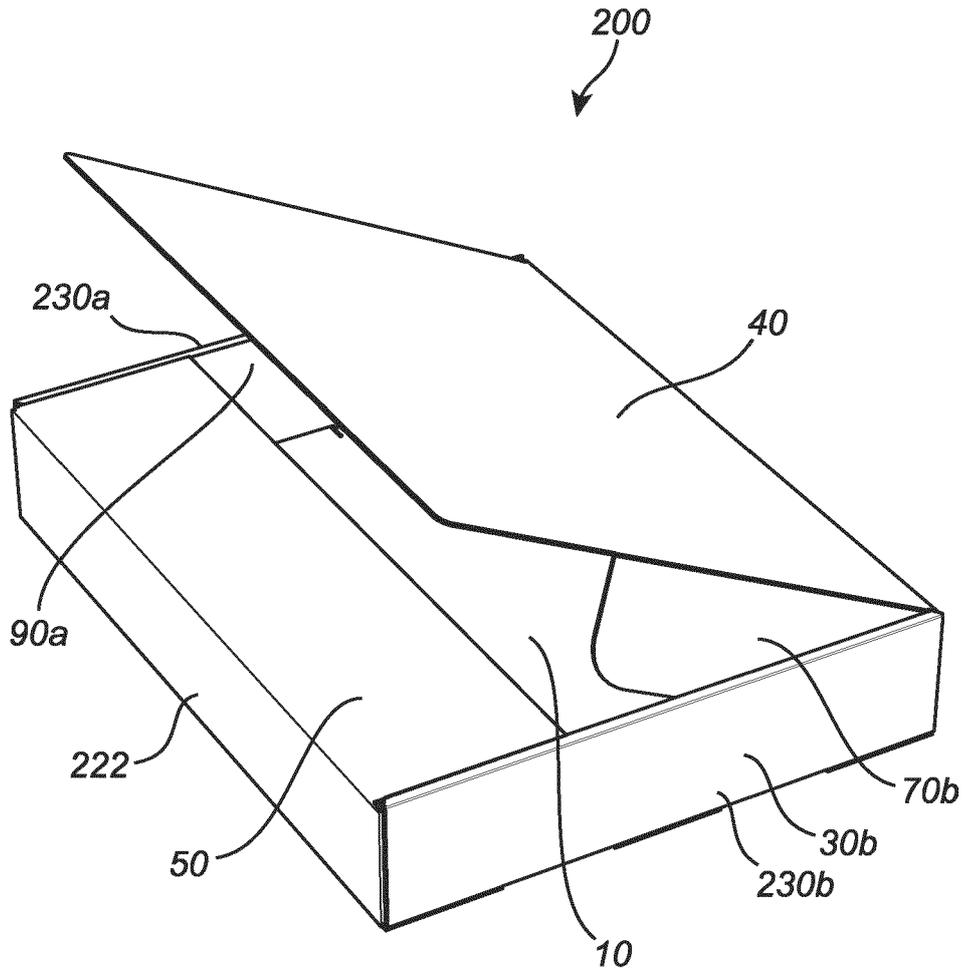


Fig. 3

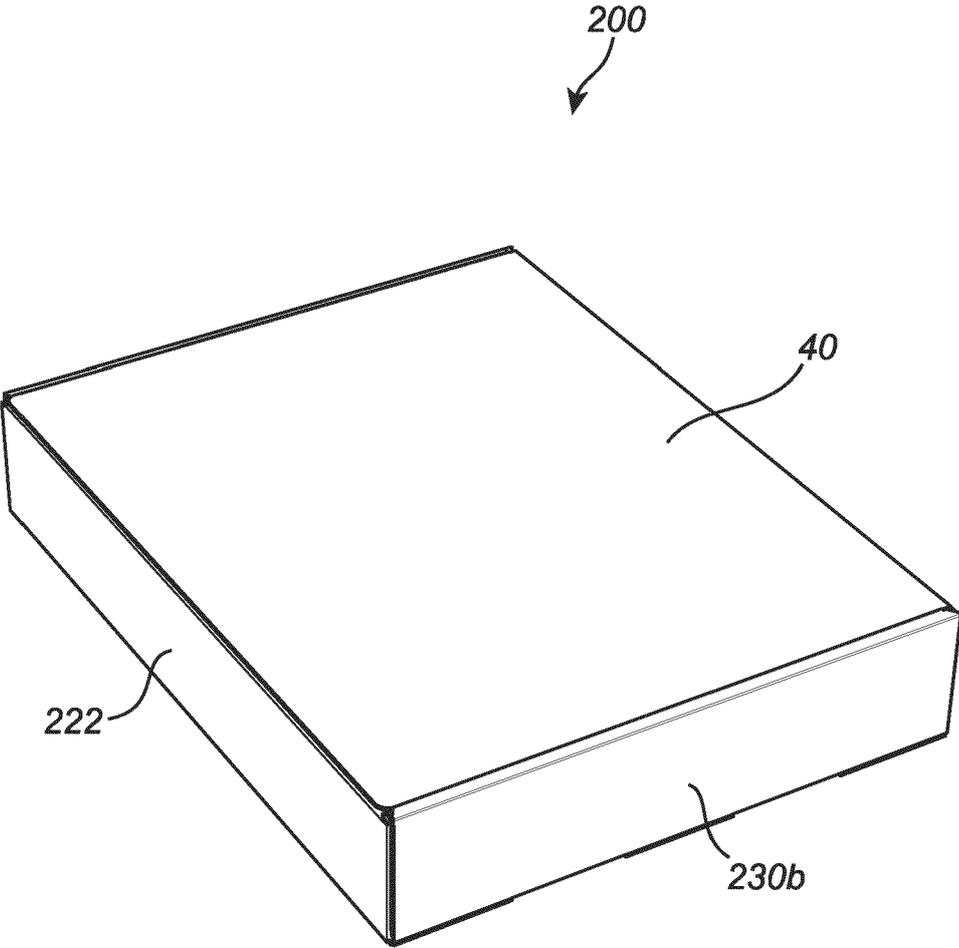


Fig. 4

REFERENCES CITED IN THE DESCRIPTION

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