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### PARTIAL EASY-PEEL POUCH AND METHOD FOR MANUFACTURING SAME

#### Abstract

Provided is a partial easy-peel pouch, and more particularly, a packaging pouch having an easy-peel film sealed only to an area that requires opening. According to embodiments of the present disclosure, the partial easy-peel pouch includes a sealing portion provided on right and left edges of front and rear films, an opening portion having a designated area on top of the front and rear films, an easy-peel film heat-sealed to inner surfaces of the front and rear films on the opening portion, and an opening handle provided on both corners or top of the opening portion.

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## Background/Summary

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims priority to Korean Patent Application No. 10-2024-0024810, filed Feb. 21, 2024, which is incorporated herein by reference in its entirety.

### Technical Field

[0002] Exemplary embodiments of the present disclosure relate to a partial easy-peel pouch, and more particularly, to a packaging pouch having an easy-peel film sealed only to an area that requires opening, and a method for manufacturing the same.

### Background Art

[0003] In general, a packaging pouch is formed into an envelope shape by sealing three sides of the front and rear films. After placing a product inside the pouch, the top is sealed. The pouch may be cut either by using a notch formed on one side of the top or using scissors.

[0004] In the case of a pouch with a notch, when opening using the notch, there are issues where the thicker the film, the more force is required, and opening becomes difficult due to slipping when there is moisture, oil, or other substances on the hands. In the case of a pouch containing liquid, the contents may spill or splash around.

[0005] When a pouch with a notch is opened by cutting, the cut surface becomes irregular, making it difficult to discharge the contents. Furthermore, since the cutting separates the packaging into two portions, a user needs to discard the cut portion after opening and then discard the remaining packaging once again (twice in total) after consuming the product, which is inconvenient.

[0006] In the case of a zipper-equipped three-side seal and zip product, when the opening portion is cut, the area just above the zipper is cut, leaving insufficient grip to open the zipper, which makes it difficult to open and may potentially damage or detach the zipper.

[0007] To address the inconveniences described above, a packaging pouch (hereinafter referred to as an “easy-peel pouch”) using an easy-peel film is provided. This easy-peel pouch may maintain an appropriate heat-seal strength that allows for manual opening, thereby satisfying both the protective properties of the packaged product and the convenience of easy opening.

[0008] However, in conventional easy-peel pouches, as shown in FIG. 1, the easy-peel film is sealed to the top, bottom, left and right sides of the front and rear films, which results in high production costs. In the case of heavy products, the heat-seal strength may be weak, leading to issues such as bursting under impact load.

[0009] The related art of the easy-peel pouch is disclosed in Korean Patent No. 10-1194780 (published on Oct. 19, 2012).

### DISCLOSURE

#### Technical Problem

[0010] Various embodiments of the present disclosure are directed to providing an easy-peel pouch that includes an easy-peel film only in an area that requires opening, thereby enhancing economic efficiency and convenience.

#### Technical Solution

[0011] According to embodiments of the present disclosure, an easy-peel pouch includes a sealing portion provided on right and left edges of front and rear films, an opening portion having a designated area on top of the front and rear films, an easy-peel film heat-sealed to inner surfaces of the front and rear films on the opening portion, and an opening handle provided on both corners or top of the opening portion.

#### Advantageous Effects

[0012] The partial easy-peel pouch of the present disclosure is manufactured by heat-sealing an easy-peel film only to an area that requires opening, thereby reducing production costs. In addition,

this pouch may prevent bursting caused by impact loads applied to the product during packaging, resolve concerns about moisture splashing when opening a product containing moisture, and it is convenient as the pouch only needs to be discarded once after the product is used.

[0013] In addition, since the easy-peel pouch is opened by gripping the upper opening portion thereof, the original shape of the packaging is maintained, and it is convenient to reseal the easy-peel pouch as a bundle. In the case of an easy-peel pouch with a zipper, the gripping area is sufficient, allowing the zipper to be easily opened and closed, and there is less concern about damaging the zipper or contents.

[0014] This pouch also provides various forms of opening portions that allow a user to conveniently open the pouch, making it easy for the user to do so.

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## Description

### DESCRIPTION OF DRAWINGS

[0015] FIG. 1 is a view showing a conventional easy-peel pouch.

[0016] FIG. 2 is a view describing the concept of the easy-peel pouch of the present disclosure.

[0017] FIG. 3 is a view showing a composition of an easy-peel film of the present disclosure.

[0018] FIG. 4 is a view showing an easy-peel pouch using the easy-peel film of the present disclosure.

[0019] FIG. 5 is a view showing various embodiments of the easy-peel pouch of the present disclosure.

### MODE FOR DISCLOSURE

[0020] FIG. 1 is a view showing a conventional easy-peel pouch. FIG. 2 is a view describing the concept of the easy-peel pouch of the present disclosure. FIG. 3 is a view showing a composition of an easy-peel pouch of the present disclosure. FIG. 4 is a view showing an easy-peel pouch using the easy-peel film of the present disclosure. FIG. 5 is a view showing various embodiments of the easy-peel pouch of the present disclosure.

[0021] A configuration of a partial easy-peel pouch **100** according to a preferred embodiment of the present disclosure will be described hereinafter with reference to FIGS. 2 to 5.

[0022] The partial easy-peel pouch **100** of the present disclosure is a packaging pouch having an easy-peel film **130** sealed only to an area that requires opening. As shown in FIG. 2, this pouch includes a sealing portion **140** provided on the right and left edges of front and rear films **110** and **120**, an opening portion **100b** having a designated area on the top of the front and rear films **110** and **120**, the easy-peel film **130** heat-sealed to inner surfaces of the front and rear films **110** and **120** on the opening portion **100b**, and an opening handle **100a** provided on both corners or the top of the opening portion **100b**.

[0023] In addition, a zipper **150** may be provided below the easy-peel film **130**. In this case, the upper portion of the zipper does not need to be cut as in the conventional case, so a sufficiently wide opening handle is formed. Accordingly, a user may conveniently open and close the zipper **150** by gripping the sufficiently wide opening handle **100a**, without concern for damage to the zipper **150** or the contents.

[0024] As such, the easy-peel pouch **100** of the present disclosure may reduce production costs by sealing the easy-peel film **130** only to an area that requires opening, and prevent bursting caused by impact loads applied to the product during packaging. The pouch may also be easily opened, so there is no concern about moisture splashing when opening a product containing moisture, and it is convenient as the pouch only needs to be discarded once after the product is used.

[0025] Furthermore, since the easy-peel pouch **100** is opened by gripping the upper opening handle **100a**, the original shape of the packaging is maintained, and it is convenient to reseal the easy-peel pouch in a bundle. In the case of an easy-peel pouch with a zipper, the gripping area is sufficient,

allowing the zipper to be easily opened and closed, and there is less concern about damaging the zipper or contents.

[0026] In addition, the easy-peel pouch **100** may be provided in a suitable form depending on the application, such as a three-side seal pouch, a three-side seal zipper pouch, or a stand-up pouch. In addition to the form, the easy-peel pouch **100** may have additional functions such as a micro-hole airflow system and a complete insect-proof airflow system.

[0027] FIG. **3** is a view showing a composition of the easy-peel film **130** of the present disclosure.

[0028] As shown in FIG. **3**, the easy-peel film **130** of the present disclosure includes an easy-peel layer **130c** (EPL film layer), a strength reinforcement layer **130b** provided on an outer surface of the easy-peel layer **130c**, and a sealing layer **130a** provided on an outer surface of the strength reinforcement layer **130b**.

[0029] The easy-peel layer **130c** may be an easy-peelable film (EPL film) layer. The principle of easy peel involves adjusting the heat seal strength by blending special resins to enable easy opening. To achieve this, an incompatible resin may be micro-dispersed into a compatible resin to control the heat seal strength.

[0030] In addition, the strength reinforcement layer **130b** is a layer designed to reinforce the easy-peel film **130**, which may stretch due to tension during the pouch-making process and may be made of one of the following materials: polyamide (NY: nylon), polyethylene terephthalate (PET), or oriented polypropylene (OPP). This strength reinforcement layer **130b** is a film layer that has already been stretched and may not be stretched any further.

[0031] In addition, the sealing layer **130a** is a layer designed to be fully sealed to one side of the front or rear films **110** and **120**, and may be a polyethylene (PE) film, a polypropylene (PP) film, or a polyethylene (PE) coating layer. Specifically, the sealing layer **130a** may be a linear low density polyethylene (L-LDPE) film layer, a low density polyethylene (LDPE) coating layer, or a polypropylene (PP) film layer.

[0032] The easy peel film **130**, which includes the easy peel layer **130c**, the strength reinforcement layer **130b**, and the sealing layer **130a**, may be made in the form of a tape. The width and thickness thereof may be adjusted depending on the shape of the opening portion **100b** of the easy-peel pouch **100**, and the peel strength may be maintained to protect the contents from being damaged.

[0033] FIG. **4** is a view showing the easy-peel pouch **100** using the easy-peel film **130** of the present disclosure.

[0034] The easy-peel pouch **100** of the present disclosure may have the easy-peel film **130** sealed to an inner surface of one of the front and rear films **110** and **120** facing each other, or the easy-peel film **130** sealed to both inner surfaces of the front and rear films **110** and **120**.

[0035] After the left and right sides of the front film **110** and the rear film **120** are sealed by the sealing portion **140**, and the front film **110** and the rear film **120** are bonded by the easy-peel film strip, the end portion of the front film **110** and the end portion of the rear film **120** become the opening handle **100a**. That is, the opening handle **100a** is composed of a front handle and a rear handle. Specifically, the front handle is formed by the end portion of the front film **110**, and the rear handle is formed by the end portion of the rear film **120**.

[0036] When the user grips the opening handle **100a** of the easy-peel pouch **100**, which is sealed as described, and pulls the pouch apart to both sides, the easy-peel layer **130a** of the easy-peel film **130** is peeled off, thus opening the pouch by the size of the opening portion **100b**.

[0037] FIG. **5 (a)** to FIG. **5 (c)** show various forms of the opening portion **100b** of the partial easy-peel pouch **100** according to an embodiment of the present disclosure.

[0038] The easy-peel pouch **100** according to the embodiment of the present disclosure, as shown in FIG. **5 (a)**, has the left and right sides of the front film **110** and rear film **120** sealed by the sealing portion **140**, with the easy-peel film **130** having rounded corners sealed to the upper opening portion **100b**, which allows for packaging or retrieving a product. As a result, the corner areas of the front and rear films **110** and **120** naturally separate, thus forming the opening handle

**100a** on both corners of the opening portion **100b**.

[0039] In this case, as shown in FIG. 5 (a), cutting the corner of a front handle **110a** of the opening handle **100a** may result in the formation of a triangular lip-shaped rear handle **120a**.

[0040] In another embodiment of the present disclosure, as shown in FIG. 5 (b), the rear handle **120a** may be formed higher (approximately 10-15 mm higher) than the front handle **110a**.

Accordingly, the rear handle **120a** functions as a lip, allowing the user to grip the sufficiently wide lip and open the pouch. The rear handle (**120a**) and the front handle (**110a**) can be configured with different heights, and/or the size of the rear handle (**120a**) and the front handle (**110a**) can also be made different.

[0041] In yet another embodiment of the present disclosure, FIG. 5 (c) shows a different form of the opening handle **100a**. In FIG. 5 (c), the width of the opening handle **100a** is formed narrower than the width of the easy-peel pouch **100**. In addition, the rear handle **120a** is formed higher (approximately 1-3 mm higher) than the front handle **110a**, so that the rear handle **120a** functions as a lip. The user may grip the front and rear handles **110a** and **120a** with both hands and pull them apart to open the easy-peel pouch **100**.

[0042] The easy-peel pouch **100** is opened by gripping the opening handle **100a**, allowing the original shape of the packaging to be maintained. The structure allows the packaged product to be **10** easily resealed, and the opening handle **100a** is formed wide enough for the user to grip, providing the advantages of reduced contamination and improved preservation of the packaged product.

[0043] This easy-peel pouch **100** of the present disclosure may be used for various products such as refrigerated foods (e.g., Vienna sausages, imitation crab meat, dairy products like butter and margarine), frozen foods, dessert products (e.g., jelly, cream, yogurt, jam), and snacks (e.g., chocolates, ice cream, sandwiches, sweet red bean jelly, etc.).

[0044] The manufacturing process of the partial easy-peel pouch according to the present disclosure now is described below.

[0045] First, the left and right edges of the front and rear films are sealed. This step is referred to as the “Sealing Step (S1).”

[0046] Next, the inner surface of the sealed film undergoes a process where the easy-peel film is taped and heat is applied to form the pouch. This step is referred to as the “Pouch Processing Step (S2).” In the pouch processing step (S2), when taping the easy-peel film to the inner surface of the sealed film, the easy-peel film may be taped at a certain distance from the top of the sealed film.

[0047] After the pouch processing step (S2), opening handles are formed on both corners or the top of the upper part of the film. This step is referred to as the “Opening Handle Cutting Step (S3).” In the “Opening Handle Cutting Step (S3),” the opening handles may be cut into various shapes suitable for handles, such as rectangular, rounded rectangular, triangular, circular, or elliptical shapes. Furthermore, it is preferable that the front handle and rear handle comprising the opening handles are cut to have different sizes and/or heights.

[0048] The present disclosure described above with reference to the accompanying drawings may be changed and modified in various ways by those skilled in the art, and these changes and modifications, not limited by the claims, should be construed as falling within the scope of the present disclosure.

## Claims

1. A partial easy-peel pouch **100**, comprising: a sealing portion **140** provided on right and left edges of front and rear films; an opening portion **100b** having a designated area on top of the front and rear films; an easy-peel film **130** heat-sealed to inner surfaces of the front and rear films on the opening portion; and an opening handle **100a** provided on both corners or top of the opening portion.

2. The partial easy-peel pouch **100** of claim 1, wherein the partial easy-peel pouch **100** is provided in one of a three-side seal pouch, a three-side seal zipper pouch, and a stand-up pouch.
  3. The partial easy-peel pouch **100** of claim 1, wherein the easy-peel film **130** comprises: an easy-peel layer (EPL film layer) **130c**; a strength reinforcement layer **130b** provided on an outer surface of the easy-peel layer; and a sealing layer **130a** provided on an outer surface of the strength reinforcement layer.
  4. The partial easy-peel pouch **100** of claim 3, wherein the strength reinforcement layer **130b** is made of one of polyamide (NY: nylon), polyethylene terephthalate (PET), or oriented polypropylene (OPP), and the sealing layer **130a** is one of a polyethylene (PE) film, a polypropylene (PP) film, and a polyethylene (PE) coating layer.
  5. The partial easy-peel pouch of claim 1, wherein the opening handle **100a** has front and rear handles **110a** and **120a** of different sizes and/or heights.
  6. A method for manufacturing a partial easy-peel pouch, the method comprising: a sealing step (S1) of sealing right and left edges of front and rear films; a pouch processing step (S2) of taping an easy-peel film on an inner surface of the sealed film and applying heat thereto; and an opening handle cutting step (S3) of forming opening handles on both corners or top of an upper portion of the film.
  7. The method of claim 6, wherein the easy-peel film is to be taped at regular intervals along the upper portion of the film; wherein the opening handle is cut into a shape such as a square, a square with rounded corners, a triangle, a circle, or an oval; and wherein the opening handle **100a** has front and rear handles **110a** and **120a** of different sizes and/or heights.
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