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(54) **A package for food products and a method for manufacturing it**

(57) An envelope-like package for food products is characterised in that it comprises:

- a sheet of corrugated cardboard (2) that defines a first outer face (2a) of the package;
- a first film (3) of plastic material suitable for food, applied internally to the sheet of corrugated cardboard (2) to define an inner surface for housing the food product;

- a second film (4) of plastic material suitable for food, applied to the first film (3) and defining with its own two surfaces an inner surface (4) for containing the food product and an outer surface (4b) of the package.

The package (1) is sufficiently rigid, it prevents the crushing of the food product and it strongly limits use of polluting or hard-to-recycle materials.

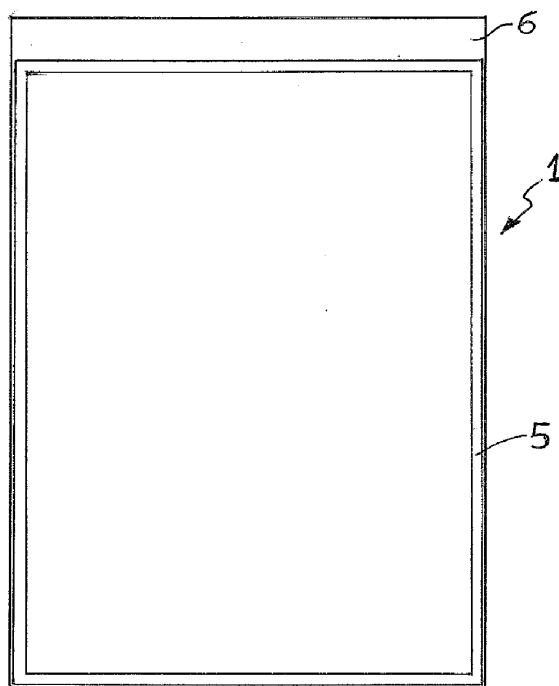


FIG. 1

Description

[0001] The present invention relates to an envelope-like package for food products, in particular cold cuts, and a method for manufacturing it.

[0002] In the field of packages of food products to be exhibited on supermarket shelves, known packages have box shape and are made of plastic, closed by a clear film, and they have the advantage of being sufficiently stiff and capacious.

[0003] However, said packages have the drawback of using plastic material that, when the package is used and discarded in the rubbish, gives rise to a high degree of environmental pollution and its disposal is difficult.

[0004] Packages are also known in which the clear film, instead of closing a plastic container closes a sheet of paper. In this case, environmental pollution is reduced, but there is no sufficient stiffness, which is often essential for a correct packaging and handling of the package.

[0005] The Applicant, particularly focused on environmental issues, then set itself the goal of eliminating the aforesaid drawbacks and to make available a package for food products, in particular for cold cuts, that is envelope shaped, can be sufficiently rigid, causes little environmental pollution once it is used, and is particularly simple and economical to produce.

[0006] An additional object is to prevent the crushing of the food product housed in the package.

[0007] Another object is also aesthetic pleasantness and ease of handling by the user.

[0008] Said objects are fully achieved by the package of the present invention, which is characterised by the content of the appended claims and in particular in that it comprises:

- a sheet of corrugated cardboard that defines a first outer face of the package;
- a first film of plastic material suitable for food, applied internally to the sheet of corrugated cardboard to define an inner surface for housing the food product;
- a second film of plastic material suitable for food, applied to the first film and defining with its own two surfaces an inner surface for containing the food product and an outer surface of the package.

[0009] An object of the present invention is also a method that comprises the following steps:

- applying a first plastic film suitable for food to a corrugated cardboard;
- positioning a food product on the first plastic film suitable for food;
- heat sealing a second plastic film suitable for food along the edges of the first plastic film suitable for food, obtaining the envelope-like package, possibly after modifying the atmosphere therein by injecting a gas mixture.

[0010] This and other characteristics shall become more readily apparent from the following description of a preferred embodiment, illustrated purely by way of non limiting example in the accompanying drawing tables, in which:

- figure 1 shows a plan view of the package;
- figure 2 shows an exploded section of the various components of the package.

[0011] With reference to the Figures, the number 1 indicates in its entirety an envelope-shaped package typically intended to house food products, particularly cold cuts.

[0012] The package 1 is originally manufactured starting from a corrugated cardboard 2 whereon is applied a first plastic film 3 suitable for food.

[0013] The corrugated cardboard has thickness of about 1 mm and it weighs about 300 g/m², whilst the first film 3 is preferably clear and made of polythene (which can be in various colours).

[0014] The first film 3 is preferably glued on the corrugated cardboard 2 in such a way as to obtain a strip of corrugated cardboard covered by film which is wound in coils.

[0015] The corrugated cardboard defines an outer surface 2a for the package, whilst the other face of the cardboard is covered by the first film 3 which defines with its own free face an inner surface of the package, whereon the food product to be packaged can be laid.

[0016] The purpose of the first film 3 is to provide an adequate surface for receiving the food product, avoiding contact between the food product and the cardboard.

[0017] According to an embodiment variant, not shown, the corrugated cardboard 2 can be of the type having a corrugated outer face and a flat inner face obtained by applying a sheet of paper or flat cardboard to the corrugated cardboard to facilitate coupling with the first film 3.

[0018] The corrugated cardboard 2 can be in various colours and it preferably has 3-6 longitudinal corrugations per cm, 4-5 in the optimal solution.

[0019] At the time of packaging, the strip unwinds from the reel and is fed continuously through a conveyor on a working counter where a food product, not shown, is positioned on the first film 3.

[0020] A second plastic film 4 suitable for food, also of the type wound on a reel, unwinds continuously and is applied on the first film by heat sealing.

[0021] Heat sealing (or also high frequency sealing) is achieved by means of an element (or electrode) with quadrangular shape that originally has sharp edges or right angles (at least the outer ones) and attaches the second film 4 on the first film 3, leaving a sealing impression indicated with the number 5 in figure 1, having a width of about 2-4 mm and preferably 3 mm.

[0022] The second film 4 is preferably made of polyester (about 20%) and clear polythene (about 80%).

[0023] Heat sealing substantially closes the package, but before closure it is possible to introduce a gas mixture to obtain a modified atmosphere within the package, according to a known technique, in such a way as to "inflate" the package and prevent the crushing of the product (e.g. slices) inserted therein.

[0024] The reference number 6 designates an edge of the second film 4 that remains free and detached relative to the first film 1 in such a way as to enable the user to grip it to obtain a tear-off opening of the package, according to a substantially known procedure.

[0025] The second film 4, which is preferably a clear film, defines with its own two surfaces an inner surface 4a for containing the food product and an outer surface 4b of the package.

[0026] The package has rectangular shape with dimensions of 16-20 cm x 21-27 cm and preferably of 18 cm x 22-25 cm.

[0027] The package of the present invention strongly limits the use of polluting or hard-to-recycle materials (reducing use of plastic by about 50% relative to traditional packages) while achieving excellent stiffness and functionality.

[0028] The outer surface made of corrugated cardboard, in addition to its tactile pleasantness (with respect to the prior art, in which packages are completely smooth and sometimes slippery to the touch), provides the package with a "home-made" appearance that is preferred by consumers over the typical appearance of "industrial" packages.

[0029] The exterior appearance of the present package and the sensation to touch provided by the corrugated cardboard make the package particularly suitable for containing food products of very high quality.

Claims

1. A package (1) for food products, **characterised in that** it comprises:

- a sheet of corrugated cardboard (2) that defines a first outer face (2a) of the package (1);
- a first film (3) of plastic material suitable for food, applied internally to the sheet of corrugated cardboard (2) to define an inner surface for housing the food product;
- a second film (4) of plastic material suitable for food, applied to the first film (3) and defining with its own two surfaces an inner surface (4) for containing the food product and an outer surface (4b) of the package (1).

2. Package as claimed in claim 1, wherein between the sheet of corrugated cardboard (2) and the first film (3) made of plastic material suitable for food is applied a sheet of flat cardboard.

3. Package as claimed in claim 1, wherein the first film (3) made of plastic material suitable for food is constituted by a polythene film.

4. Package as claimed in claim 1, wherein the second film (4) made of plastic material suitable for food is constituted by a polyester and polythene film.

5. Package as claimed in claim 1, wherein the sheet of corrugated cardboard (2) has 3-6 longitudinal corrugations per cm.

6. Package as claimed in claim 1, wherein the second film (4) is applied to the first film (3) by heat sealing with sealing impression (5) having right angles.

7. Package as claimed in claim 1, wherein the package (1) has rectangular shape with dimensions of 16-20 cm x 21-27 cm and preferably of 18 cm x 22-25 cm.

8. Package as claimed in claim 6, wherein the width of the heat seal is 2-4 mm and preferably 3 mm.

9. Package as claimed in claim 4, wherein the second film (4) is constituted by a 20% of polyester and 80% of clear polythene.

10. Package as claimed in claim 1, wherein the corrugated cardboard has thickness of about 1 mm and mass of about 300 g/m².

11. A method for manufacturing a package for food products, **characterised in that** it comprises the following steps:

- applying a first plastic film suitable for food to a corrugated cardboard;
- positioning a food product on the first plastic film suitable for food;
- heat sealing a second plastic film suitable for food along the edges of the first plastic film suitable for food, obtaining the envelope-like package, possibly after modifying the atmosphere therein by injecting a gas mixture.

12. Method as claimed in claim 11, wherein after the application of the first film, the cardboard wound in reels is fed by means of a conveyor on a work counter where it receives the food product.

13. Method as claimed in claim 11, wherein the second film is sealed onto the first film by means of an element with sharp outer edges or right angles.

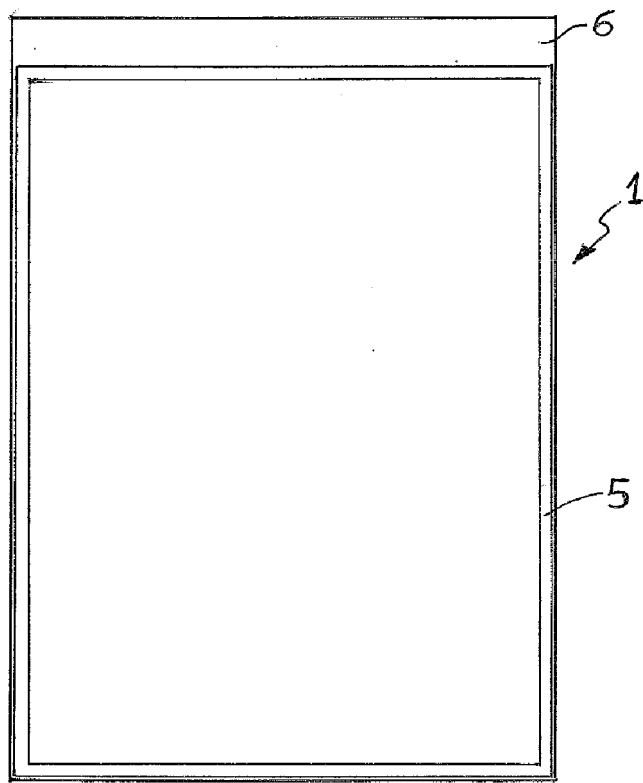


FIG. 1

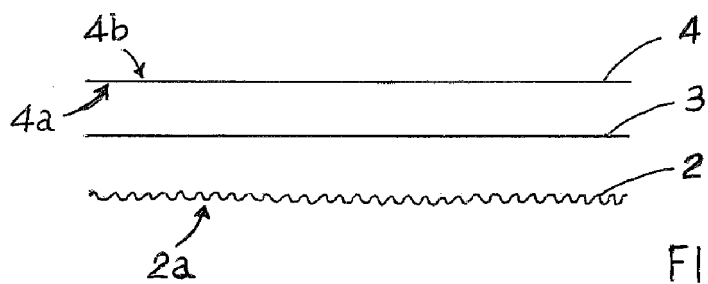


FIG. 2



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Application Number
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Place of search Munich		Date of completion of the search 7 March 2008	Examiner Visentin, Mauro
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EUROPEAN SEARCH REPORT

Application Number
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Place of search Munich		Date of completion of the search 7 March 2008	Examiner Visentin, Mauro
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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