

DESCRIPTION

“PACKAGING FOR READY-TO-USE COMPOUND PRODUCTS WITH A DEVICE FOR SEQUENTIAL AND SUITABLY DEFERRABLE INTEGRATION OF COMPONENTS”

Technical field of invention

The present invention regards the field of packagings for containing products composed of at least three components to be kept separately up to the moment of usage and, particularly the sector of packagings for containing food products.

For demonstration scopes, the invention may be used to realise the coating of meat, fish or vegetables with bread crumbs or flour mixture for further cooking.

The state of the art

As far as the food products is concerned, different types of packagings are known nowadays. Mostly, these packagings contain bags with mix for bread crumbs and shaker bags in which the products to be coated with bread crumbs and the mix mentioned before are introduced and shaken together.

The disadvantages connected to the use of such packagings are numerous: it is necessary to get and use an additional fluid ingredient (oil, eggs ecc.), which is often necessary to veil preventively the product in order to realize a better adherence of the bread coating; while opening the bags mentioned before it is possible to pour out occasionally its content; as the bag is flexible, its walls, humidified by contact with a food product and/or with the said additional fluid, may tend to adhere making the

bread coating introduction more difficult; it is necessary to assure an adequate closure of the bag to avoid the leak of product and bread coating, especially in the shaking phase; it is necessary to preview, furtherly to the avoiding of exceeding bread coating and before the baking, an operation which like all the previous operations conducts to getting dirty hands, dishes and different utensiles without increasing much the praticity of cooking.

So, the object of the present invention is to make available a packaging which allows mainly to:

- keep opportunely separated the components of the product up to the moment of their usage;
- mix the different components of the product in a practical, hygenic and efficient manner, as well as in sequential and suitably deferrable mode;
- keep in a special bay the excess of some components.

Brief description of the figures

- Fig. 1 a view of one embodiment of the packaging in absonometrical section;
- Fig. 2 vertical section of the container (1) of fig. 1 with dispenser (11) and element (21) present and closed inner compartments (18, 23, 24);
- Fig. 3a vertical section of packaging of fig. 1, with the mobile base (12) pushed inside up to the stop point, with the activation of the sufficiently stable hook between clutches (19, 22) and with the related opening of the windows (14) of the lateral wall (13) of the dispenser (11);

Fig. 3b vertical section of the packaging embodiment, in which the horns (30) acted to interfere with the edges (31) of the windows of the lateral wall (13) of the dispenser (11) are present on the element (21).

Fig. 4 vertical section of the container (1) of fig. 1 with the mobile base (12) described in the initial position with related pulling of the element (21) towards the bottom of the container (1), which is possible because of sufficiently stable hook between clutches (19, 22), and consequent opening of the windows (15) of the lateral wall (13) of the dispenser (11).

Detailed description of the figures

With reference to figure 1, the packaging is constituted by a container (1), provided with a lateral wall (2) which terminates with an edge (3), and by a base (4), partially holed and closed in the bottom by a film (5), generally of plastic material, joined by means of thermowelding or some other available technique to the flat surface (6) of inferior relieved edge (7). Said inferior relieved edge (7) and said film (5) concur to delimit, on the part of the base surface (4) opposite to the opening of the container (1), a bay (8) in correspondence of the holed part and a further separated bay (9) in correspondence of the solid part, in which different accessories, not shown here, can be located (absorbing paper, pliers for baked products, ecc.) and in which the filming that closes said bay (9) keeping said accessories, can be uncoupled without removing the part of the film which closes the bay (8) corresponding to the holed portion.

In the base surface (4) of said container (1) a hole (10) is made. On said hole the dispenser (11), constituted by a lateral wall (13) in which the windows (14, 15) are opening is introduced. The lateral wall (13) terminates with a flanged edge (16) on which, at the end of the packaging, the same upper-sealing film (17) which closes the container (1) in correspondence of its flanged edge (3) is made adhere.

The container (1) and the dispenser (11) define the main compartment (18).

In the dispenser (11) a mobile base (12) is present. On its inner concave part a clutch (19) is placed and in its correspondence, on the convex side, a button-handle (20) is placed, which function will be explained later.

Inside the dispenser (11) the element (21) is placed. From its base a clutch (22), complementary to the clutch (19) starts. Said clutch is placed on the mobile base (12) of the dispenser (11), to which it joints in a particular phase of packaging usage, as it will be clear below.

After the introduction of the element (21) in the dispenser (11) in this latter a compartment (23) is defined in which the component, normally fluid, is placed which is first to be united with the product present in the main compartment (18).

The element (21) defines, on its turn, a compartment (24) which should contain, for instance, the bread crumbs.

In figure 2 a section of the packaging, in which, going up from the bottom, the following pieces are represented:

- the sealing film (5);

- the external bay (9), in which it is possible to place different accessories (absorbing paper, pliers for baked products, ecc.) and in which corresponds the sealing film (5) is removable;
- the external bay (8), permanently closed by the resting part of the sealing film (5), in which, through the holes of the base surface (4) of the container (1), it is possible to collect the bread crumbs in excess;
- the main compartment (18), containing the product to be coated with bread crumbs;
- the dispenser (11) keyed in the hole (10) and in the relative compartment (23) containing the fluid component;
- the element (21) and the correspondent compartment (24) containing the bread crumbs;
- the superior sealing film (17) which closes the compartments (18) and (24) adhering respectively to the flanged edges (3) and (16).

In a packaging phase, the dispenser (11) is inserted, by means of a sealed joint, into the hole (10) of the base surface (4) of the container (1), while in other embodiments of the invention it is still possible to realize the dispenser (11) directly in a unique block with the container (1), or insert it into the container (1), in phase of usage, by means of a coupling hole (10).

Furtherly a component (normally fluid) for the compartment (23) is introduced and after that it passes to place the element (21) pushing it, as necessary, inside the dispenser (11). The ribs (25, 26), present on the lateral wall of the element (21),

interfering with the corresponding horns (27, 28) opportunely realized inside the lateral wall (13) of the dispenser (11), stabilize inside the dispenser (11), the position of the element (21), isolating, in addition, each of the compartments (23, 24) defined in said dispenser.

So, the compartment (24) is filled and finally the container (1) is sealed by the film (17) adhered in the same time, by means of thermowelding or other known technique, to the flanged edge (3) of the container (1) and to the flanged edge (16) of the dispenser (11).

In figure 3a the section of the packaging according to one particular application, when, in the usage phase the mobile base (12) together with the element (21) is completely pushed by the user inside the packaging, discovering, without opening before the packaging itself, the windows (14) of the lateral wall (13) of the dispenser (11), capable to make communicate the compartments (23) and (18) is shown. The use previews that in this phase the packaging should be put upside down on a rigid plain to assure that when the pressure applied by the user to the mobile base (12) is transmitted to the sliding element (21) this latter can not move over some certain position which in this case is the position in which the superior edge (29) of the compartment (24) meets the said rigid plain. This is to assure that in this phase the clutch (19) couples in a sufficiently stable way with the complementary clutch (22).

Said coupling can also be realized as it is shown in figure 3b.

In this embodiment, the horns (30), present on the lateral wall of the sliding element

(21), interfere with the edge (31) of the windows (15) of the lateral wall (13) of the dispenser (11), assuring (for the same scope as described in the embodiment shown in fig. 3a) that said sliding element (21) can not move over the position delimited by this interference.

So, the usage of the packaging previews that the same is shaken to allow that the component leaked out of the compartment (23) mixes with the product contained in the compartment (18).

Figure 4 shows how, using the hooking between the complementary clutches (19, 22), is possible, pulling the button-handle (20) placed on the mobile base (12), to push in the same direction the element (21) too. Acting so, the opening of the windows (15) of the lateral wall (13) of the dispenser (11) is determined, so that by overturning and shaking the packaging, the component of the compartment (24) may pass into the compartment (18) and complete the product preparation.

Putting upside down and shaking another bit the packaging, the bread crumbs in excess will pass into the bay (8) through the holed part of the base surface (4).

Once the container (1) is open, it will be possible to pour out the product, for example, in a pot, from the side (32) specifically previewed. During this operation the band (33) of the base surface (4) will obstacle the excess of bread crumbs in the bay (8) to pass out of the said bay when the container will be inclined enough to allow to pour out the product.

The absorbing paper, present in the bay (9) and not shown here, can be opportunely

conformed to be supported by the emptied container (1), in order to be able to use it for dripping the fried product, using also, for a better result, the presence of the holed portion of the base surface (4).

Other embodiments may preview that the mobile base (12) inside the dispenser (11) is also sliding.

In one of these further embodiments the mobile base (12) and the element (21) can be joined forming a piston which moves inside the dispenser (11).

In this embodiment the mobile base (12) is inserted, the compartment (23) is filled, the element (21) is inserted, the compartment (24) is filled. This latter is provided not only by the superior opening, in this case closed by a proper autonomous closure element, but also by lateral openings, temporarily closed by the portions of the wall (13) of the dispenser (11) with which said lateral openings contact.

In the usage phase the mobile base (12) is pushed and, opening the windows (14), the compartment (23) communicates with the compartment (18), to proceed to the scattering of the liquid content into the compartment (23) on the product contained in the compartment (18). After that, by pressing on the autonomous closure element up to making coincide said lateral openings of the compartment (24) with the openings (15) of the dispenser (11), the compartment (24) communicates with the compartment (18), to proceed to the definitive coating of the product with bread crumbs.

The invention, certainly, is not limited, to the representation of the figures, but can receive perfections and modifications from men skilled in the art, without going out

of the patent frames.

Present invention permits numerous advantages and, particularly, allows to overcome the difficulties that could not be surmounted using the systems that are actually in commerce.

CLAIMS

1. A packaging for ready-to-use compound products, with device for sequential and suitably deferrable integration of the components, constituted by a container (1) open in the upper part, provided with a base (4) and with a lateral wall (2) which terminates with an edge (3), and by a dispenser (11), provided with a lateral wall (13) too which terminates with an edge (16) and with a mobile base (12), which define the first inner compartment (18) to contain the first component of the product, **characterized by the fact** that
 - said edge (3) of said container (1) and said edge (16) of said dispenser (11) are acted to associate themselves to the superior closure element,
 - that said lateral wall (13) of said dispenser (11) is provided with windows (14, 15),
 - that one element (21) is inserted in a sliding mode inside said dispenser (11) defining both an inner compartment (23) for a second component of the product, together with the mobile base (12) of said dispenser (11), and one or more than one further inner compartments (24) for one or more than one further components of the product,
 - that said base (12) and said element (21) are manoeuvrable from the outside,
 - that, opportunely acting on the mobile base (12) and on the element (21), this latter can be moved along a determined direction inside the dispenser (11) up

to open one or more than one said windows (14, 15) of said lateral wall (13) of the dispenser (11), allowing, so, the passage into the compartment (18) itself of the component/s of the inner compartment/s communicating with the same said inner compartment (18) by means of said window/s opened in this phase,

- that the element (21) can, moreover, be moved in the opposite direction inside the dispenser (11) up to open the windows remained closed in the previous phase, allowing the passage into the compartment (18) itself, of the component/s of the inner compartment/s communicating with the same said inner compartment (18) by means of said window/s opened in this phase.
2. A packaging for ready-to-use compound products, according to the claim 1, characterized by the fact that said mobile base (12) and said element (21) have, respectively, a clutch (19) and a complementary clutch (22) acted to couple in a stable mode.
 3. A packaging for ready-to-use products compound, according to the claims 1 or 2, characterized by the fact that said mobile base (12) is provided with a button-handle (20) to press or pull.

4. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said container (1) and said dispenser (11) are realised as a unique piece.
5. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said container (1) and said dispenser (11) are realized as separated and subsequently assemblable pieces and that said container (1) presents a hole (10) on its said base (4), acted to allow a stable clutch of the dispenser (11).
6. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that the element (21) presents the horns (30) acted to interfere with the edges (31) of the windows, in order to assure that the element (21) can not move over the position defined by such interferences.
7. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that ribs (25, 26), opportunely placed on the element (21), interfere with the corresponding horns (27, 28) present inside the lateral wall (13) of the dispenser (11), stabilizing inside the dispenser (11), the position of the element (21), isolating, in addition, each of the compartments (23, 24) defined in said dispenser.

8. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said base (4) of said container (1) presents a hole in its entire surface or only in its part.
9. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said base (4) of said container (1) presents a relieved edge (7), on the opposite side inside the packaging which define one or more than one external compartments (8, 9).
10. A packaging for ready-to-use compound products, according to the claim 9, characterized by the fact that in said external compartments (8, 9) the accessories for usage or preparation of the product can be placed.
11. A packaging for ready-to-use compound products, according to the claim 9, characterized by the fact that said relieved edge (7) is acted to associate itself to an inferior closure element (5).
12. A packaging for ready-to-use compound products, according to the claim 11, characterized by the fact that said inferior closure element (5) can be removed only in correspondence of the external compartment/s to the hole (10) and,

anyway, to the non-holed part of the base (4).

13. A packaging for ready-to-use compound products, according to the claim 9, characterized by the fact that the external compartment (8) corresponding to the holed portion of the base (4) of the container (1) is acted to keep inside an excess of components of the product, resulting from the preparation of said product in said packaging and that the band (33) of the base surface (4) obstacles the excess of components in the bay (8), to pass out of the said bay (8), when the container (1) will be inclined enough to allow to pour out the product.
14. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said element (21) is provided with an autonomous superior closure element compared to the superior closure element (17) of the container (1).
15. A packaging for ready-to-use compound products, according to any previous claim, characterized by the fact that said elements of superior closure of the container (1) and of the element (21), as well as those of inferior closure (5) of the external compartments (8, 9), are constituted by a film of plastic material.