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(54) **Packaging bag or lid with sticker**

(57) The present invention is primarily directed to a bag or lid (1) laminate material for making a closed package comprising:

by a layer of self-adhesive, said face material having at least one removable sticker portion, and
 (b) a packaging laminate portion (11),

(a) a sticker portion (10) comprising a face material (12) and a liner material (13) removably attached

wherein said layer of self-adhesive is a continuous layer.

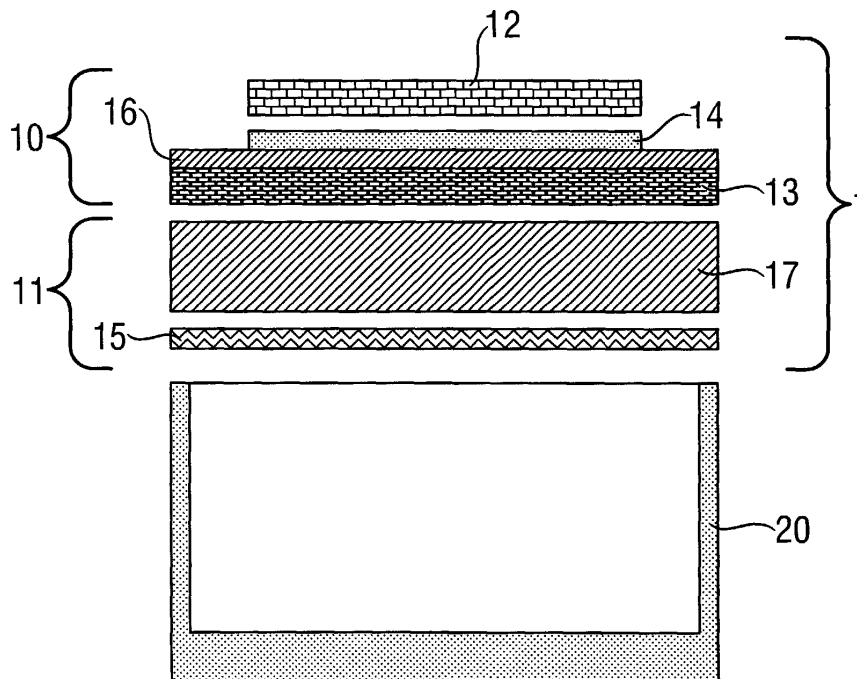


Fig. 2

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Description**TECHNICAL FIELD**

[0001] The present invention relates to a film-type packaging bag or lid made of a laminated material containing at least two layers of material.

BACKGROUND OF THE INVENTION

[0002] Packaging bags or lids made out of a laminate with a removable sticker portion for packaging food items are representative of the various bags or lids with a removable portion that contains a self-adhesive to which the present invention can apply. Typically, the laminate comprises at least two layers with at least one adhesive material separating said layers. It further can comprise one portion delimited with a precut into one of said at least two layers. It is thus possible to unstuck and remove the precut portion from the rest of the laminate. *EP 1 010 630 A2* is a European patent application to Sonoco Development that discloses a bag laminate with removable sticker portion. The packaging material is meant for manufacturing film-type or box-type packaging or a lidding material for containers, or providing a packaging material for manufacturing parts of packaging forms such as strips. The laminate is made of an inner layer, and an outer layer with printed indicia formed on it. The outer layer includes a fixed portion, which is attached to the inner layer with a permanent adhesive. The outer layer also includes a removable sticker portion, which is substantially coplanar with the fixed portion. The removable sticker portion is attached to the inner layer with a pressure sensitive adhesive.

While the invention disclosed in *EP 1 010 630 A2* provides valuable benefits, it still contains some disadvantages. The laminate disclosed therein requires specific lamination machines to apply two different adhesives in between the inner and outer layers, which causes the overall manufacturing process to be quite expensive. In addition, an essential component of the laminate of *EP 1 010 630 A2* is the need for at least two different adhesive materials: one permanent adhesive in contact with the inner layer, and a pressure-sensitive adhesive in contact with the outer layer. The presence of two different adhesives increases the manufacturing cost of the laminate, which is obviously undesirable.

[0003] It is therefore one main object of the present invention to provide a packaging bag or lid made out of a bag or lid laminate that comprises an integrated sticker portion, which is very cheap to manufacture and requires as few production steps as possible.

SUMMARY OF THE INVENTION

[0004] The present invention is primarily directed to a bag or lid laminate material for making a closed package comprising:

- (a) a sticker portion comprising a face material and a liner material removably attached by a layer of self-adhesive, said face material having at least one removable sticker portion, and
- (b) a packaging laminate portion,

wherein said layer of self-adhesive is a continuous layer.

[0005] The present invention is further directed to a process for making such a laminate packaging material, and to a process for closing a package, for instance a can, with such a laminate.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The invention will now be explained in detail with reference to the accompanying drawings, in which:

- Figure 1 is a schematic profile cut view of a packaging bag or lid (1) according to the present invention with the full top and adhesive layers of the lid or bag laminate.
- Figure 2 is a schematic profile cut view of a packaging bag or lid (1) according to the present invention with the top and adhesive layers of the lid or bag laminate partially cut away, in order to leave one central sticker portion (10) to be peeled off from the rest of the laminate.
- Figure 3 is a schematic profile cut view of a packaging bag or lid (1) according to the present invention with the top and adhesive layers of the bag or lid (1) laminate being precut, in order to leave one central sticker portion (10) to be peeled off from the rest of the laminate.

DETAILED DESCRIPTION OF THE INVENTION

[0007] As shown in the attached figures 1, 2, and 3, the present invention provides a packaging bag or lid (1) made out of a laminate material. In the following description, a detailed explanation of the structure of the laminate itself will be given. The laminate used in the context of the present invention comprises two portions that are joined to each other such that they form one single laminate material: a sticker portion (10) and a packaging laminate portion (11). Said sticker portion (10) comprises a face material (12) and a liner material (13) removably attached to each other by a self-adhesive layer (14) (14). The packaging laminate portion (11) comprises at least one layer of a moisture barrier and/or gas barrier material. Both portions will be described in more detail hereafter, especially having regard to their constitutive layers.

[0008] In a preferred embodiment of the present invention, the liner layer of said sticker portion (10) comprises a moisture and/or gas barrier material.

[0009] Furthermore, said packaging laminate portion (11) most preferably comprises a sealant layer (15) that allows to seal said laminate packaging material onto a

packaging surface or onto a can opening. Examples of materials suitable to be used as sealants will be described hereafter in detail.

Applications

[0010] One first aspect of the present invention is directed to a packaging bag; in that case, the laminate packaging material is folded onto itself and sealed so as to form a closed bag. The second aspect of the present invention is directed to a packaging lid. In that case, only one portion of the packaging laminate is used, which portion is used to seal the opening of packages, such as cans (20). Such cans (20) may contain for example foodstuff known for human or animal consumption e.g. apart from many other examples, sweet foodstuffs, yogurts, cheeses, soups, pastes, baby foods, jams, preserved fruits or creamy desserts, dehydrated food preparations, drinks such as mineral water, aerated drinks and lemonades, instantly soluble or ground coffees, ready-made soups, confectionery goods etc.

[0011] However, in one most preferred embodiment of the invention, the packaging laminate portion (11) comprises a sealant for sealing the open mouth of such packages as canisters (20), for example cans for snack food, such as Pringles™ chips.

[0012] In both aspects of our invention, would it be a packaging bag or a packaging lid, the laminate can be permanently or releasably sealed.

[0013] Furthermore, in a preferred embodiment, the present invention provides a packaging bag or lid (1) that is to be used for containing moisture or oxygen sensitive material, such as for example snack foods. For this reason, the bag or lid (1) packaging laminate used in the context of the present invention preferably comprises at least one layer of a moisture barrier and/or gas barrier material. By using the general wording "gas barrier", it is meant that skilled person will be able to select appropriately the right barrier material that is impermeable to the gas that must be kept away from the package contents. For instance, in the case of snack foods, the gas barrier material will be an oxygen barrier material. Preferably said moisture and/or gas barrier material is part of the liner material (13) of the sticker portion (10).

Sticker portion

[0014] The sticker portion (10) of the laminate packaging material used in the context of the present invention, comprises three layers: a liner layer that is in contact with the packaging laminate portion (11) of said laminate packaging material, a face material (12) that is typically to remain on top of the laminate once said laminate has been applied on a package, and a layer of adhesive that removably attaches said liner and face layers. It is highly preferred in the context of the present invention that a cured silicone layer (16) be present between the liner and the adhesive ensures that no residues remain

onto the liner material (13) when the sticker portion (10) (i.e. face material (12); and adhesive) is peeled off from said liner.

[0015] From the above, it will be understood that in normal conditions of use, and once said laminate packaging material has been applied onto a package, it will be possible for a consumer to peel off at least one portion of the face material (12) together with the underlying adhesive layer, from said liner, so as to reveal for instance a printed area of said liner that was normally hidden by said face layer, and/or an item that was printed in the internal side of said face material (12). Such printed area may disclose for example promotional messages, or other kind of information. In the following, it is taken as an example - that is not meant to be limiting - that the liner material (13) and or the internal side of the face material (12) is/are printed with an image.

[0016] The printed image may be a character or a series of characters such as figure-like or abstract graphic patterns, numbers and letters, figures, any form of writing or pattern. The printed image provides in particular initially hidden information for a competition, answer to a puzzle or the like. This information is exposed only after separating the face material (12) layer from the liner material (13) layer i.e. by peeling or raising one layer from the other.

[0017] The size of the printed image is selected with respect to the packaging unit such as a covering or box in such a manner that a complete printed image fits onto e.g. a top surface of the covering or a surface of the box, or in the case of a pouch preferably at least one side of the pouch. In the case of lids at least one complete printed image should be arranged within the limits of the seam between the lid and the container.

[0018] The printing machines may be those employed e.g. for typography, offset, flexography, screen, heliography, photogravure or copper photogravure printing, preferably those used for fixed or heliography-printing processes.

[0019] The face material (12) can be used for collectible stickers, promotional artwork, Instant Win mechanism with inside printing, tattoo stickers, holographic stickers,... Depending on the use of the face material (12), the face material (12) can be coated or non-coated paper, can be wet-strength or anti-mould treated, can be synthetic material such as polyethylene, polypropylene, polyester. The face material (12) will be typically printed, can be in multiple colours, can be printed on both sides, can have a varnish to protect the print for scratches or heat during the package making process. Any printing process can be used, including flexography, gravure, digital, ... In case of use as a canister membrane, typically, there is a registration mark printed to be able to accurately cut out the membrane for canister closure, or, the artwork can serve as registration mark for the cutting process. A kiss-cut can be applied to the laminate material, cutting through the face material (12) and the self-adhesive layer (14) (14), but not

cutting through the remainder of the laminate package or destroying the hermetic properties of the package, to give the face material (12) any shape you want to increase the appeal to the consumer. The web material can be removed to only keep a part of the face material (12), or can be kept in place.

[0020] The sticker portion (10) of the packaging laminate material used in the context of the present invention also contains an adhesive layer over the whole of the surface — the adhesive layer containing or being comprised of an adhesive.

[0021] It is an essential requirement of the present invention that said adhesive layer be a continuous layer of adhesive. Would it be a blend of several different types of adhesives or one single adhesive type, one nozzle applies the adhesive between the liner and face material (12)s in a continuous way. For this reason, the laminate packaging material is very cheap to manufacture since there are no gaps and no adjacent or superposed portions of adhesives to create that would be require a more complex and more expensive adhesive applying system, compared to processes that use one or more layers, or discontinuous layers of adhesive.

[0022] The adhesives may be e.g. starches, albumin, casein glues, cellulose ethers and cellulose esters such as methyl cellulose or nitrocellulose, natural caoutchouc, synthetic caoutchouc, polyethylene such as copolymers of ethylene-vinyl-acetate, polypropylene, polyvinylesters such as polyvinylacetates, homopolymers or copolymers of polyvinylchloride such as vinyl-chloride and vinylacetate or vinylchloride and methacrylic-acid-esters, polyvinylether, polyvinyl-pyrrolidone, polystyrene, polyamides, polyesters, polyurethanes, polyisocyanates, epoxy resins, phenolic resins, resorcinic resins such as resorcin-formaldehyde and resorcin-phenolformaldehyde resins, ureic resins, melaminic-formaldehyde resins and non-reactive resins such as colophoniuni resins, tall-resins, hydrocarbon resins, carbamide-acid-ester resins or cyclohexanon resins or contain these substances.

[0023] The adhesives may also contain softeners. The adhesives may be solvent-free or contain solvents such as benzine, toluol, xylol, methylenechloride, trichlorethylene, trichlorethane, asctic ester, acetone methylethylketone, methylisobutylketone or cyclohexanon. It is also possible to employ water-containing or water-soluble adhesives. The adhesives may also contain filler materials such as silicic acids, chalks, light or heavy gypsum or fibrous materials.

[0024] Other adhesives can be used that join without chemical reaction or solvent-free adhesive systems in the form of melting adhesive substances or adhesive plastisoles. It is also possible to employ adhesive solutions having solvents, which evaporate before bonding or contact adhesives. It is also possible to employ adhesives having solvents that vaporize during the bonding process, or aqueous starch and dextrin adhesives or other aqueous adhesive solutions. Mention must also

be made of aqueous dispersions of polymeric compounds such as dispersion adhesives. Use may also be made of reaction-type adhesives such as polymerization adhesives to which the two component polymerization adhesives and the single component adhesives belong. Further, use may be made of polyaddition type adhesives such as polyurethane adhesives, and finally polycondensation adhesives such as polymethylol compounds or polyamide. Further adhesives are starch and dextrin adhesives, polyvinylacetate dispersion adhesives, modified starch adhesives or copolymer-dispersions stabilized with casein or caoutchouc elastics or polyacrylester solutions or polyurethane adhesives.

[0025] The adhesive layer may also contain or comprise waxes, paraffins or hot-melts, or it may be an extruded layer of polymers such as polyolefins or polyesters.

[0026] Suitable adhesives are, but not limited to, as follows adhesive reference 151LC and 533RE by Samuel Jones Panoval or S2000 by Avery Denisson.

[0027] The adhesive in the adhesive layer is employed preferably in amounts of 1.4 to 20 g/m² especially preferred is an amount of 4 to 15 g/m².

[0028] The deposition of the adhesive may be performed by spraying, brushing, rolling, rakes or blades, or in a reverse roll coating system, using the curtain-coater principle or e.g. in the case of melting adhesives using nozzle deposition equipment.

[0029] Different alternatives for the adhesive are so-called Removable, Removable/Repositionable, Permanent, Permanent low odour, permanent wet-stick, semi-permanent, chill permanent self-adhesives. The self-adhesives can be acrylic emulsion or rubber based.

[0030] In combination with food packaging, an FDA (Food & Drug Administration) approved self-adhesive is preferred.

[0031] Initial tack of the adhesive is most preferably typically designed according the use of the face material (12), and is typically between 50 N/m and 500 N/m.

[0032] The 90 degree peel force of the face material (12) is also preferably typically designed according to the speed and design of the cutting operation, and is typically between 80 N/m and 500 N/m.

[0033] Also it is particularly preferable that the adhesives used in the context of the present invention be heat resistant. By heat resistant it is meant that the adhesive properties are not modified when the adhesive is heated for a short time during a sealing process especially for temperatures up to 300°C for less than 5 seconds, by heat resistant is also meant that the adhesive properties when heated for a long time for instance during transportation in hot countries do not change (environmental temperature in trailers typically up to 60deg during 12 hours a day). They should successfully meet the criteria of the following test procedure: heat at 300°C for 1 to 8, preferably 5 seconds. Peel force at 90° and initial tack are then measured, which should meet the requirements given above.

[0034] The other test that can be used to determine heat resistance of the adhesives suitable in the context of the present invention is as follows. The sticker laminate is heated in an oven in a cyclic manner between 20°C and 65°C, where the low and high temperatures are kept for 12 hours each time. In total, 30 cycles - each comprising 12 hours at 65°C and 12 hours at 20°C - are applied. Peel force at 90° and initial tack are then measured, which should meet the requirements given above.

Packaging laminate portion

[0035] The packaging laminate portion (11) according to the present invention is in the form of a laminate or composite (17) and is usefully manufactured in the form of sheets or as endless rolls or coils and the individual packaging materials made e.g. into boxes, pouches or sachets by cutting or stamping out etc. and sealing or adhesive bonding these together. The rolls of material may also be processed by cutting or stamping into wraps for small goods or for wrapping items such as cheese, or for boxes etc. The packaging laminate portion (11) may be in the form of endless strips or as rolls and by stamping or cutting out, the individual lids may be produced before sealing or bonding onto the container.

[0036] Said packaging laminate portion (11) comprises at least one layer (17), but is preferably a multilayer portion. Preferably, said packaging laminate portion (11) comprises a layer of paper, plastic, or metallic layer, or a combination thereof (17), and said layer (17) is preferably combined with a sealant layer (15).

[0037] The papers may be for example cellulose papers and printing papers made therefrom. It may also be newspaper material, papers for printing illustrations, writing paper, drawing paper, papers for labels and office papers. Preferred are printing papers. These are for example papers for relief printing, for printing books or newspapers, papers for surface printing and papers for photogravure printing. Useful are printing papers having a weight per unit area of 18 to 250 g/m². Preferred are papers having a weight per unit area of 18 to 120 g/m².

[0038] As a rule the papers are unlined papers. The papers may be white or colored. The coloring may be achieved e.g. by through-thickness coloring, by coloring the surface in the gluing press, immersion coloring or surface coloring by brushing. The coloring may be bright or multi-colored. The papers may also be environmentally favourable in their manufacture i.e. made without adding acids such as sulphuric acid, and/or chlorine-bleaching. It is also possible to use recycled paper. Apart from the papers mentioned it is also possible to use papers made from synthetic fibres. Security paper containing security chemicals or threads or fibres may also be used. If desired the papers may be coated and/or laminated e.g. by coating methods such as extrusion coating, dispersion coating and organic coating. The coating may be an organic coating, a wax, paraffin or a

hot-melt coating. A laminating process may be employed to join for instance a strip of paper to a pre-made plastic film. Other processes that may be used are methods of coating from the vapour phase in vacuum (chemical vapor deposition or physical deposition). Finally, the papers useful in the context of the present invention can be replaced by a film material made of plastic, for example a polyester film.

[0039] The monofilm of plastics or film composites suitable for inserting as a layer in the packaging laminate portion (11) may be made of or contain thermoplastics based on polyesters, polyamides, polyolefins, polystyrols, polyvinylchloride, polycarbonates or from viscose, etc...

[0040] Suitable polyesters are for example polyalkylene-terephthalates such as polyethylene-terephthalate, or the polyethylene-terephthalate known as A-PET, PETP, PETG or G-PET. Preferred thicknesses are 6 to 50 µm, in particular 10 to 36 µm or 12 µm.

[0041] Polyamides shall be comprised within, but not limited to, the list of: polyamide 6 and 6.6; polyamide 11; polyamide 12; polyamide 6.12 or polyamide 6-3-T, etc...

[0042] Polyolefins are for example polyethylenes such as polyethylenes of low, medium or high density, linear polyethylenes of low, medium or high density, such as amorphous, crystalline or highly crystalline polypropylene, oriented polypropylene or mixtures containing the above-mentioned polyolefins. Preferred thicknesses for polypropylenes are 6 to 50 µm, in particular 10 to 36 µm or 20 µm.

[0043] Examples of polystyrols are thermoplastic polystyrole, copolymers and polyblends of styrole 15 such as styrole/acrylonitrile-copolymers or styrole/butadiene-grafted polymers etc.

[0044] The above-mentioned films of thermoplastics are employed in thicknesses e.g. of 6 to 200 µm, usefully 10 to 100 µm and, in the absence of any other specification, preferably from 20 to 80 µm.

[0045] The films of the above mentioned thermoplastics may be non-stretched or axially or biaxially stretched. The films may also contain filler materials such as talcum, glass, quartz, mica, chalk, barium sulphate, zinc oxide, titanium oxide etc. in amounts of e.g. 2 to 60 wt. %.

[0046] By cellulose is understood e.g. regenerated cellulose, so called cellulose hydrate, also known as cellophane. The cellulose films are e.g. 8 to 200 µm thick.

[0047] The above mentioned thermoplastics may also be laminate coated in some cases with bonding agents and laminating adhesives or by co-extrusion etc. to form plastic film composites containing two, three or more monofilms. The plastic composites may be e.g. 16 to 200 µm thick.

[0048] The plastics may be transparent, translucent or opaque and non-coloured, have coloured surfaces or be coloured through.

[0049] The packaging laminate portion (11) may also comprise at least one metallic layer, alone but preferably

in combination or deposited onto another type of material layer. The metal foil is for instance an aluminium, iron or steel foil, aluminium foil being preferred. The aluminium foil may be of pure aluminium or of an AlFeMn aluminium alloy such as AlFe1.5Mn, AlFeSi or AlFeSiMn, for example having a purity of 99.7 % and higher, preferably 98.5% and higher. The metal foil may be e.g. 6 to 100 µm thick, preferably 6 to 60 µm.

[0050] For the layers of said packaging laminate portion (11), it is also possible to employ - independent of each other — multilayer composites containing the mentioned papers, plastic films, plastic composites, papers or plastic films or composites that are metallized on one or both sides, and/or metal foils.

[0051] The papers and plastics or multilayer composites made therefrom for those layers of said packaging laminate portion (11) may be metallized, i.e. exhibit metallic coatings. Metallizing may be performed e.g. by a vacuum thin layer deposition process or by sputtering etc., the layer deposited on the surface in question being e.g. 10 to 60 nm, preferably 10 to 30 nm (nanometer) thick. Suitable metals for deposition are e.g. aluminium, iron, steel, nickel, copper, silver etc.

[0052] Plastic composites and also papers may contain barrier layers to diffusion e.g. in the form of an ethylvinylalcohol film, a polyvinylidene film or a ceramic layer. The ceramic layer may be 5 to 500 nm (nanometer) thick layer deposited by a vacuum thin layer deposition process (chemical vapour deposition, physical vapour deposition), said layer being of oxides or nitrides or mixtures thereof; metals or semi-metals such as e.g. SiO_x or Al_yO_z, where x represents a number from 1.1 to 1.9, and y/z a factor of 0.2 to 1.5.

[0053] A sealing layer, or sealant, is preferably provided on the outward facing side of the packaging laminate portion (11). The sealant may be a sealing organic coating or a sealing film. The organic coatings or films contain as a rule polyolefins such as polyethylene, polypropylenes or ionomer resins. Instead of the sealing layer, the packaging or lidding materials may contain e.g. outer adhesive layers which, on contact or under the application of pressure and/or heat, form seams on boxes or pouches, or lid films are joined to the shoulder region of a container.

[0054] The sealing layers serve to form seams to make a box, pouch or sachet etc., or to seal closures on containers such as beakers, goblets, dishes, menu-dishes or glasses to the lid material.

Manufacturing process

[0055] The present invention is further directed to a process for making a laminate packaging material as described above. Such a process comprises the following steps:

- (i) coating a silicone layer onto a liner material (13) and curing it thereonto;

- (ii) laminating an adhesive on the coated liner and attach a sticker face material (12) thereonto so as to produce a sticker portion (10);

- (iii) printing said sticker portion (10);

- (iv) optionally laminating a polyester film onto the liner material (13);

- (v) additionally coating said liner material (13), or said polyester film with an aluminium film and a sealant layer (15);

- (vi) optionally slicing the laminate packaging material into a roll of laminate having a width compatible with a can-closing process;

- (vii) optionally applying a kiss-cut onto said laminate packaging material so as to cut the sticker portion (10) and the adhesive from the liner material (13) of the sticker portion (10), in a predetermined area;

- (viii) optionally remove the face material (12) web around the sticker portion (10);

- (ix) optionally die-cutting a membrane out of the laminate packaging roll, said membrane being suitable for closing the opening of a package;

- (x) optionally heat sealing said membrane onto the open mouth of a package.

[0056] While the above example of a process is preferred, other suitable process steps in order can be envisaged. For example, another suitable process comprises in order steps (i), (ii), (iii), (vii), (iv), (v), (vi), (viii), (ix) and then (x).

[0057] Figures 1 to 3 show different situations where the face layer of the sticker portion is uncut (figure 1), partially cut away (figure 2) or comprises a precut (figure 3).

[0058] Finally, it is reminded that all along the above description as well as in the claims, the wording "laminating" and "laminating" is meant to be understood as respectively "laminating or extrusion coating-laminating" and "laminating or extrusion-coating laminating", since either one or the other of the lamination or extrusion coating lamination can be used in the context of the present invention.

Examples

[0059] Some examples of laminates that can be used in the packaging bag or lid (1) of the present invention are given here below, which are not meant to be limitative in any way, having regard to the various possibilities of layers combinations. The materials are given in order, starting from the top layer (i.e. the face liner of the sticker portion (10)) to the lower layer (i.e. the sealant layer (15)).

Example I

[0060]

	Weight	Thickness
Paper	70 g/m ²	67 μm
151 LC	11 g/m ²	9 μm
Kraft paper	60 g/m ²	64 μm
Adhesive	3.5 g/m ²	3.5 μm
PET	17 g/m ²	12 μm
LDPE	16 g/m ²	17.4 μm
Aluminum	24.3 g/m ²	9 μm
Surlyn	24 g/m ²	24.6 μm

Example II

[0061]

	Weight	Thickness
Paper	83 g/m ²	67 μm
Adhesive S2000	11 g/m ²	9 μm
Glassine paper	60 g/m ²	64 μm
Adhesive	3.5 g/m ²	3.5 μm
PET	17 g/m ²	12 μm
LDPE	16 g/m ²	17.4 μm
Aluminum	20 g/m ²	7 μm
Surlyn	24 g/m ²	24.6 μm

Example III

[0062]

	Weight	Thickness
Paper	70 g/m ²	67 μm
Adhesive: 533 RE	11 g/m ²	9 μm
PET	32.2 g/m ²	23 μm
LDPE	16 g/m ²	17.4 μm
Aluminum	24.3 g/m ²	9 μm
Surlyn	24 g/m ²	24.6 μm

Claims

1. A packaging bag or lid (1) made of a laminate material comprising:

(a) a sticker portion (10) comprising a face ma-

terial (12) and a liner material (13) removably attached by a layer of self-adhesive, said face material having at least one removable sticker portion, and

5 (b) a packaging laminate portion (11),

characterized in that said layer of self-adhesive is a continuous layer.

10 2. A packaging bag or lid (1) according to claim 1, wherein a silicone layer (16) is present between the liner material (13) and the self-adhesive layer (14) of said sticker portion (10).

15 3. A packaging bag or lid (1) according to any of the preceding claims, wherein said adhesive layer comprises heat resistant adhesive having an initial tack comprised between 50 and 500 N/m.

20 4. A packaging bag or lid (1) according to any of the preceding claims, wherein said adhesive is such that the 90 degree peel force of the face material (12) is comprised within the range of 80 to 500 N/m.

25 5. A packaging bag or lid (1) according to any of the preceding claims, wherein said packaging laminate portion (11) is permanently or releasably sealed onto a packaging surface.

30 6. A packaging bag or lid (1) according to claim 5, wherein said material is releasably sealed as a removable lid onto the opening rim of a can.

35 7. A packaging bag or lid (1) according to claim 6, wherein said packaging laminate portion (11) further comprises a sealant base layer that allows to seal said laminate packaging material onto said packaging surface or can opening.

40 8. A packaging bag or lid (1) according to any of the preceding claims, wherein said packaging material comprises at least one layer of a moisture barrier and/or gas barrier material.

45 9. A packaging bag or lid (1) according to claim 1, wherein said moisture and/or gas barrier material is comprised within the liner layer of said sticker portion (10).

50 10. A can closed with a lid, made of a laminate packaging material, according to claims 1 to 9, in such a way that said can is gas and/or moisture impermeable.

55 11. A process for making a laminate packaging material used in a packaging bag or lid according to any of the claims 1 to 9, **characterized in that** it comprises the steps of:

(i) producing a sticker portion (10) by laminating a face material (12) to a liner material (13) with a self-adhesive in between, wherein said self-adhesive coating covers substantially the whole surface of said sticker portion (10), and; 5
(ii) manufacturing a sticker membrane by laminating a packaging laminate portion (11) to said liner of said sticker portion (10), wherein said packaging laminate portion (11) comprises at least one layer of a moisture barrier and/or gas barrier material. 10

12. A process according to claim 11, wherein said process further comprises the following steps: 15

(i) optionally laminating said liner of said sticker portion (10) with a polyester film,
(ii) coating said liner material (13), or said polyester film with an aluminium film, and then an additional sealant layer (15). 20

13. A process of closing a can with a laminate according to any of claims 1 to 9, **characterized in that** said process comprises the steps of: 25

(i) making a laminate packaging material with a process according to claim 8 or 9;
(ii) optionally slicing the laminate packaging material into a roll of laminate having a width compatible with a can-closing process 30
(iii) optionally applying a kiss-cut onto said laminate packaging material so as to cut the sticker portion (10) and the adhesive from the liner material (13) of said sticker portion (10), in a pre-determined area; 35
(iv) optionally remove the face material (12) web around the sticker portion (10);
(v) die-cutting a membrane out of the laminate packaging material roll, such that said membrane is suitable for closing the opening of said can; and 40
(vi) sealing said membrane onto the open mouth of said can, using heat, a high-frequency process, or the like. 45

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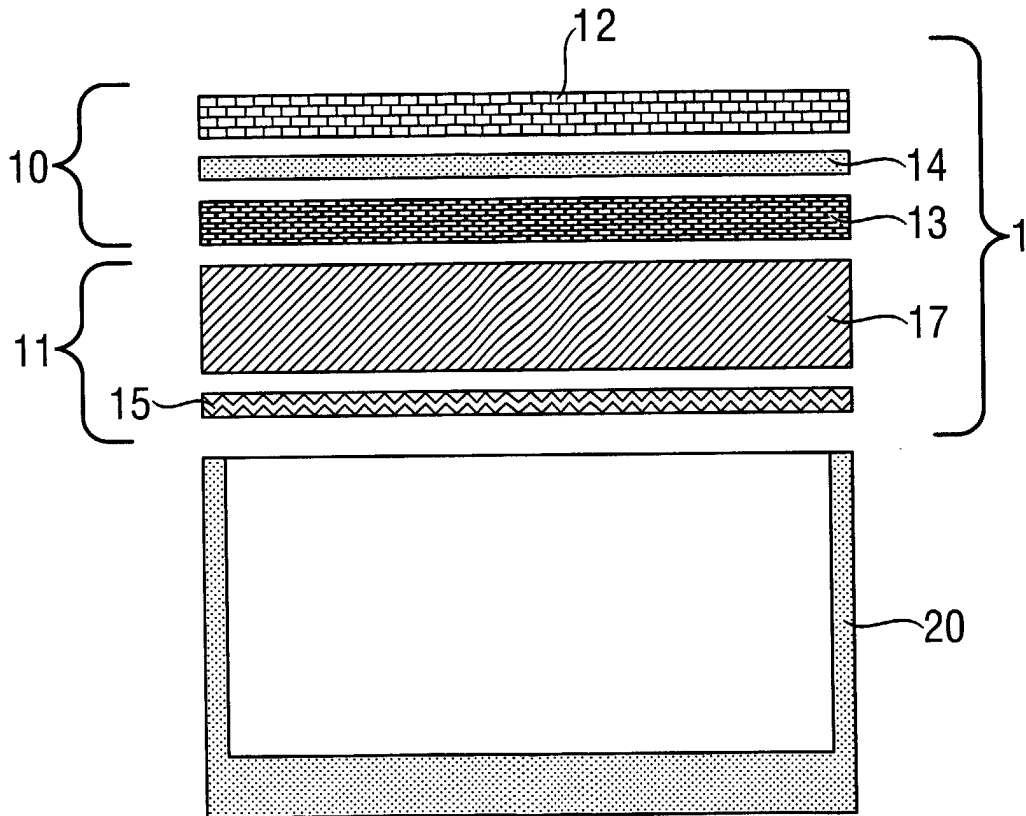


Fig. 1

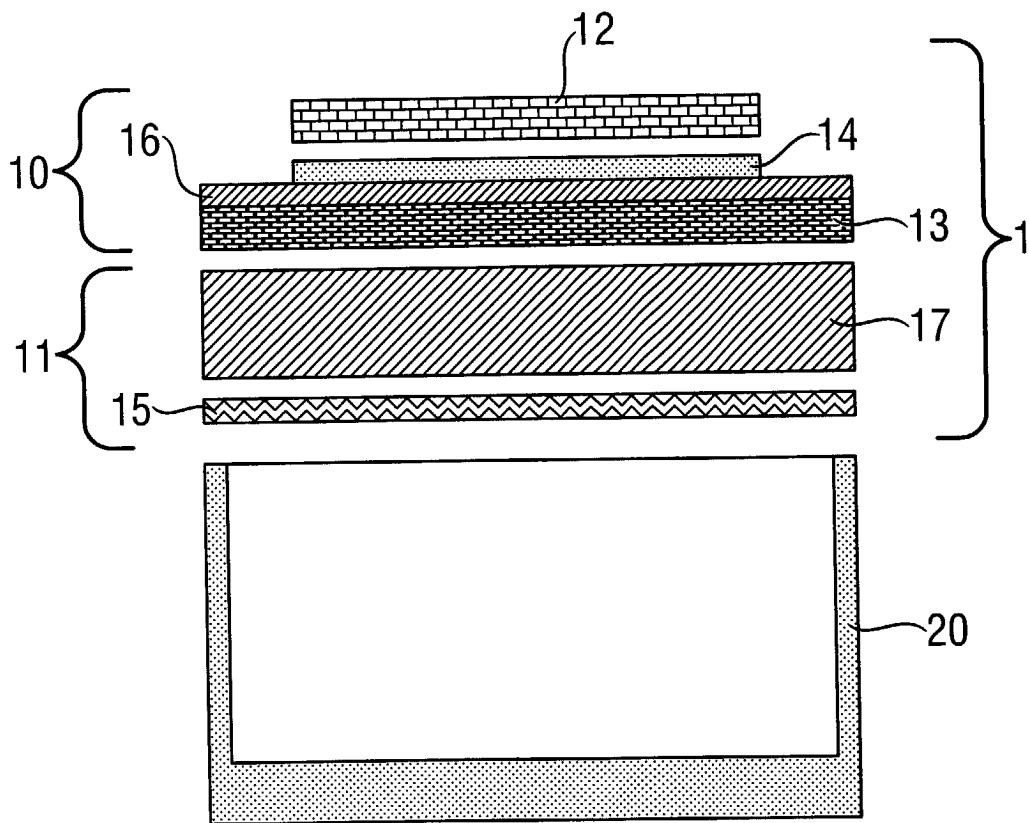


Fig. 2

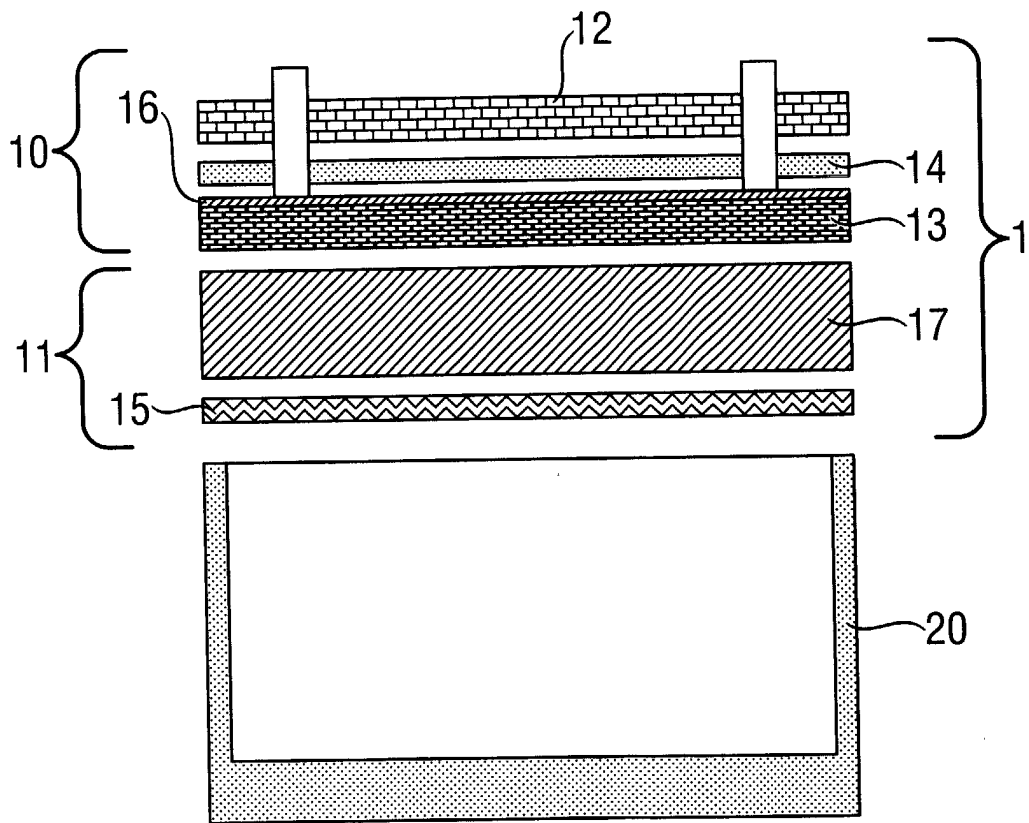


Fig. 3



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 87 0161

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 2001/001282 A1 (PARMENTIER RENE ET AL) 17 May 2001 (2001-05-17) * the whole document *	1-13	B65D33/00 B65D75/54 B65D77/20 G09F3/10
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 April 2002	Examiner Fournier, J
CATEGORY OF CITED DOCUMENTS 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		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	

EPO FORM 1503 09 92 (FOAC01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 01 87 0161

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	DE 31 27 205 A (HANKE JUERGEN) 27 January 1983 (1983-01-27) * claim 1; figures *	1	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search THE HAGUE		Date of completion of the search 4 April 2002	Examiner Fournier, J
<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</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03 82 (P04/C01)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-9, 10

Subject I (claims 1-9, 10) relates to a packaging lid comprising a sticker portion having a continuous layer of self-adhesive. Claim 10 relates to a can closed by this lid.

2. Claims: 1-9

Subject II (claim 1-9) relates to a packaging bag comprising a sticker portion having a continuous layer of self-adhesive.

3. Claims: 11-12

Subject III (claims 11-12) relates to a process for making a laminate packaging material used in a packaging bag. The bag comprises a sticker portion having a self-adhesive coating covering substantially the whole surface of the sticker portion.

4. Claims: 11-12, 13

Subject IV (claims 11-12, 13) relates to a process for making a laminate packaging material used in a packaging lid. The lid comprises a sticker portion having a self-adhesive coating covering substantially the whole surface of the sticker portion. Claim 13 relates to a process for a closing a can using this laminate packaging material.

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 01 87 0161

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82