

BAKING MIX FOR THE PRODUCTION OF VEGAN BAKERY PRODUCTS

The present invention relates to a baking mix for the production of vegan bakery products containing at least one premix consisting of a flour substitute, a binder, a leavening agent and at least one seasoning and optionally a sugar substitute and/or a sweetener, and additives comprising at least one fat component.

Baking mixtures for the production of sweet bakery products or also white or black bread have been known on the market for a long time and are sold and used in a wide variety of compositions. In particular, premixes for the production of cakes and a wide variety of breads have gained great popularity, since it is only necessary for the user to add liquid and possibly fat to the baking mixture, in order to proceed as it is stated on the various packs how to get a loaf of bread, white bread, rolls or even a cake. A disadvantage of these baking mixes is that they are usually made with conventional gluten-containing products, which on the one hand are not well tolerated by many people and on the other hand contradict the spirit of the times, according to which attempts are made to eat as little gluten as possible.

All of these baking mixes have in common that they contain binding agents such as egg powder, whole egg powder or the like, which makes them unsuitable for people who follow a vegan diet and, in particular, do not meet the requirement of eating a gluten-free and vegan diet at the same time can in no way suffice.

Furthermore, a number of baking mixes or premixes have recently been described which are suitable for the production of low-gluten or low-carbohydrate bakery products and pasta, these mixtures, in addition to the fact that they contain egg as a binder, have the disadvantage that their taste differs greatly from products containing conventional wheat or rye flour or the like. If consumers try to eat carbohydrate-free or low-carbohydrate food in accordance with the spirit of the times and also want to do without eggs, these people often have the need, to keep the effort, especially the time investment for the production of appropriate vegan and gluten-free nutrition as low as possible and would like to consume tasty products at the same time, so that they have to resort to the provision of ready-made products or corresponding premixes. In addition to the least possible amount of time available for the production of corresponding low-carbohydrate or vegan products, a consumer naturally wants vegan products to taste as identical as possible to conventional products, such as for example, wholemeal bread bought from the bakery, cakes from the confectioner or the like.

Flour or carbohydrate substitutes are known, the provision of a selection of such substitutes, which are almost identical in taste to conventional baking mixes containing or consisting of cereal flours and the like, not being known to date. In addition, there is the problem with vegan baking mixes that the egg powder contained in conventional baking mixes or whole egg to be added later must be replaced by vegetable alternatives, which means that one of the baking mixes is bound dough to be made is reduced and a bread with organoleptic properties equal to that of a bread made from a cereal flour is not available.

The present invention therefore aims to provide a baking mix which is suitable for the production of vegan bakery products which are also gluten-free or low in carbohydrates, with which baking mix it is possible to produce easily digestible pastries that is both well bound and also well risen and thus corresponds to conventional baked goods.

To solve this problem, the baking mix according to the invention is essentially characterized in that the premix of at least one flour substitute is selected from almond dust, coconut flour, bean flour, pumpkin seed flour, walnut flour, dietary fibers or roughage fibers such as bamboo fibers, potato fibers, oat fibers, citrus fibers, apple fibers or mixtures of two or more thereof, a binder is selected from linseed flour, psyllium husk powder, locust bean gum, chia seed flour, xanthan gum, arrowroot flour, baking powder as a leavening agent, at least one seasoning and optionally the at least one sugar substitute and/or sweetener and that a mixture containing additives separately packaged from the premix is provided, which mixture comprises at least one vegetable fat and/or oil, water and optionally at least one sugar substitute and/or at least one sweetener. By preparing the baking mix in such a way that it consists of a premix that contains at least one flour substitute, a binder, a leavening agent and, if appropriate, seasonings and a sugar substitute and/or or sweetener and has a second mixture packaged separately from the premix, which contains at least one of a vegetable fat and/or oil, water and optionally at least one sugar substitute and/or at least one sweetener, it is possible to provide a long-lasting baking mixture, since liquid or semi-solid components are stored separately from the solid components and caking or possibly premature rising of the premix containing propellant is prevented. By specifically selecting the premix, which contains at least one flour substitute or a mixture of two or more thereof, a binder or a mixture of two or more thereof, it is possible to provide a premix, which essentially corresponds in taste to conventional flour, regardless of whether it is wheat flour, rye flour or spelled flour. This taste identity or similarity of the premix with mixtures containing classic flour makes it possible to provide a tasty bakery product which is produced without the addition of egg or dry egg or egg components and is suitable for a well-bound and equal flavour to provide fluffy and well-risen bakery product in a

timely manner. Through the use of sugar substitutes and/or at least one sweetener, which can be contained both in the premix and/or in the second mix, it is also possible to set the baking mix in such a way that it is suitable for the production of sweets is suitable or can also be used for bread and also for diabetics. Moreover the fat content of the products is significantly higher than with conventional products so that the bakery mixes can be used in the ketogenic diet.

The food fibers or dietary fibers that may be contained in the baking mixture as a flour substitute, such as bamboo fibres, potato fibres, oat fibres, citrus fibres, apple fibers, not only give the baking mixture the necessary volume, but are also easily digestible and particularly digestible for people, since they have almost no nutritional value and instead have a digestive effect.

The mixture packaged separately from the premix can either be present in a package that contains all the ingredients required for the production of a baked good, or only the premix can be provided and information about the respective items still to be added ingredients and their quantity enclosed with the premix. Such a procedure is particularly useful if the premix is sold in household quantities, since other ingredients such as mineral water, vegetable margarine, olive oil, certain grains, fruits or herbs are in each household present and on the other hand, for example grains, fruits, spices and the like, can be individually dosed.

Furthermore, it is possible with such a baking mix to essentially replace carbohydrates almost completely and, moreover, to provide a baking mix that is completely gluten-free. This is favourable insofar as carbohydrates and in particular gluten do not represent an essential part of human nutrition and, moreover, are not particularly beneficial for the digestion of the human body due to the low percentage of roughage contained in white flour.

A baking mix according to the present invention thus contains both substances that have a high roughage content and are also low in carbohydrates and finally contain almost no gluten at all. Substances such as nut flour, pumpkin seed flour, bean flour and the like not only have a relatively high dietary fiber content but also represent plant proteins in particular or contain large amounts of them, which are essential for human nutrition, so that a baking mix according to the present invention not only satisfies the nutritional trend low in carbohydrates, gluten-free and vegan, but also can be processed into extremely digestible and health-promoting products whose taste corresponds essentially to conventional products.

According to a development of the invention, the baking mixture is essentially designed in such a way that the at least one sugar substitute and/or the at least one sweetener can be provided

in each of the mixtures to be used or also separately from them. By providing the sugar substitutes and/or the at least one sweetener in this way, the degree of sweetening of the bakery products to be produced can be adjusted, particularly when the sweetener is separated from both the premix and the second mixture to be added. If the sweetener is provided in the mixture containing fat and/or oil, an intimate mixture of the fat and the sweetener can be formed before mixing with the premix, so that, in particular, the specifications of conventional cake baking, in which substances containing fat, sugar and, if necessary, binders are usually mixed first, can be followed during the manufacturing process.

In a baking mix according to the invention, the procedure can be such that the at least one sugar substitute and/or the at least one sweetener is selected from maltitol, erythritol, sorbitol, mannitol, isomaltitol, lactitol, xylitol, allulose, stevia, monk fruit or mixtures of two or more of them is chosen. By choosing from a large number of sugar substitutes or sweeteners, it is possible to neutralize the inherent taste of these sweeteners or sugar substitutes to such an extent that the consumer has the feeling as if they were conventional sugar, especially beet sugar contained in the baking mix.

According to a development of the invention, the fat component of the baking mixture is selected from vegetable oils such as olive oil, rapeseed oil, linseed oil, walnut oil, sunflower oil and/or vegetable margarine from sunflower, rapeseed and/or coconut fat or mixtures of two or more elected from it. A certain flavour can be given to a baking mix by selecting the fat to be used, for example by using olive oil, the consumer can be given the impression of Mediterranean bakery products such as focaccia, ciabatta or the like. The use of walnut oil in combination with, for example, a baking mix that contains bread baking spices or also nuts or the like can, for example, suggest the flavour of nut bread. In any case a high fat content is chosen compared to conventional baking mixes or conventional products. Biscuit according to the present invention contain for example about 28 to 32 % by weight fat whereas conventional biscuits, containing wheat flour, sugar and eggs contain about 6 % by weight fat.

In addition, by selecting the fat component and in particular if an oil or fat with polyunsaturated omega 3 fatty acids, a baking mix can be provided which can have a health-promoting effect.

According to a further development of the invention, the water contained in the baking mixture is selected from warm or cold tap water, soda water, sparkling or still mineral water, further minerals or mineral mixtures containing, for example, magnesium or iron can optionally be added to the water. The use of mineral water or soda water has in particular the advantage that such water can support the leavening agent in forming a holey structure in the dough. By adding

minerals or mineral mixtures containing, for example, magnesium or iron to the water, it is possible, for example, to produce sports breads and the like from the baking mixture. The baking mix can be balanced in such a way that the mineral content is adjusted to that of conventional cereal flour, or the amount of one or more essential minerals can be increased.

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According to a development of the invention, the at least one seasoning in the baking mixture is selected from salt, caraway, coriander, anise, onion, garlic, fennel, allspice, nutmeg, marjoram, oregano, thyme, basil, chives, lovage, parsley, fenugreek, vanillin, vanilla extract, cocoa, lemon juice or lemon flavour, orange juice or orange flavour, cinnamon, cloves, vinegar, or mixtures of two or more thereof. By choosing an appropriate spice or spice mixture, the baking mixture can be used to make bread, such as black bread, white bread, focaccia, ciabatta, nut bread, but also desserts such as cakes, donuts or biscuits. Needless to say that these spices can be added directly to both the premix and the second mix or can also be present in separate packaging so that a product to be made from the baking mixture can be seasoned as desired. By choosing the seasonings, a health-promoting effect can also be achieved if desired. Caraway and fennel, for example, have a calming effect on the stomach nerves. Furthermore, the taste of an end product made from the baking mix can be drastically influenced by the appropriate choice of spices.

20 In the same way, the baking mix, in particular the premix of the baking mix, can contain nuts, grains and/or dried fruits. The nuts, grains and/or dried fruits can be finely chopped, coarsely chopped or essentially whole, depending on their size and depending on the intended use. For this purpose, the products can be selected from walnuts, pine nuts, hazelnuts, almonds or mixtures of two or more of these, the grains can be selected from pumpkin seeds, sunflower seeds, linseed, chia seeds, poppy seeds or mixtures of them two or more thereof and the dried fruits can be selected from grapes, apricots, plums, figs, dates, cranberries or mixtures of two or more thereof, for example pine nuts, raisins, linseed, chia seeds, poppy seeds and the like may be included whole, plums, apricots, figs, dates or the like usually in chopped form as well as walnuts or almonds may be included. The addition of nuts, grains or dried fruit can also be used to adjust both the fat content and the mineral content of the baking mixture. It is known that flaxseed and nuts contain large amounts of fat, especially unsaturated omega 3 fatty acids, so that these can not only be used to increase the total fat content of the baking mixture, but can develop a vegan, health-promoting product overall. Dried fruits such as dates, figs, plums and the like can be used as sweeteners and also contain large amounts of dietary fibers, which in turn have a digestive effect.

The invention is explained in more detail below using exemplary embodiments.

1. Baking mix for making a farmer's bread

Premix 1

Ingredient	Amount (g/ml)
Bean flour	25
Pumpkin seed press cake flour	70
Linseed flour	50
Ground almonds	100
Bamboo fibers	20
Chia flour	20
Psyllium Husk Powder	30
Almond dust	15
Cream of tartar baking powder	5
Salt	6
Bread spices	5

5 Premix 2

Olive oil	13
Maltitol (optional)	13
Water	430

Premix 1 is placed in the bowl of a kneader and mixed with as much maltitol as desired from premix 2. The water is brought to a boil, mixed with the olive oil and added to Premix 1, stirring constantly. Mixing in the kneader is continued until all of the water has been taken up by premix 1. The hot dough obtained in this way is kneaded again by hand, if necessary, shaped into loaves of bread and sprinkled with pumpkin seeds as desired. If desired, up to 15g of pumpkin seeds can also be mixed into the batter.

The loaves formed from the dough are placed in the middle of an oven preheated to 180 °C and left to bake for 80 minutes. The loaves are then cooled and, if necessary, divided or cut only after they have cooled completely. In the same way, instead of pumpkin seeds, sunflower seeds, linseed, poppy seeds or the like can be worked into the bread or sprinkled with it.

2. Production of Baguette "Toscana"

Premix 1

Ingredient	Amount (g/ml)
Almond dust	50
Chia flour	20
Bean flour	35
Walnut flour	15
Ground almonds	85
Pumpkin seed flour	35
Linseed flour	35
Bamboo fibers	20
Coconut flour	15
Cream of tartar baking powder	7
Salt	5
Herbal salt or Italian spice mix	5

Premix 2

Olive oil	13
Maltitol (optional)	12
Water	430

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Premix 1 is placed in the bowl of a kneader and mixed with as much maltitol as desired from premix 2. The water is brought to a boil, mixed with the olive oil and added to Premix 1, stirring constantly. Mixing in the kneader is continued until all of the water has been taken up by premix 1. The hot dough obtained in this way is kneaded again, if necessary by hand, and formed into baguettes. If desired, herbs, garlic and the like can also be mixed into the dough.

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The baguettes formed from the dough are placed in the middle of an oven preheated to 180 °C and left to bake for 80 minutes. The baguettes are then cooled and, if necessary, divided or cut only after they have cooled completely.

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3. Making a cocoa cake

Premix 1

Ingredient	Amount (g/ml)
Almond dust	100
Coconut flour	40
Cocoa	20
Erythritol with Naturom	70
Cream of tartar backing powder	8
Locust bean gum	5
Vanillin	1
Xanthan gum	2
Salt	1

Premix 2

Vegetable margarine	150
Chocolate chips	
Sparkling mineral or soda water	150
Water	450

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Premix 1 is placed in the bowl of a kneader. The water is added together with the vegetable margarine to the premix 1, with any quantity of chocolate chips if desired, while stirring constantly, and then processed into an even dough, filled into a mold and placed in the middle of a to 180 °C with top and bottom heat in a preheated oven and leave to bake for 40 minutes.

10 After that, the cocoa cake is left to cool. The cocoa cake can be coated with any desired cream or a cream can be filled in between two layers of the cocoa cake, such as cocoa cream or the like. The cake can also be covered with a cocoa glaze or be directly covered with, for example, hazelnut splinters or the like.

15 Such a cocoa cake can either be consumed immediately or can be deep-frozen and reused at a later date.

4. Making a biscuit base 1

Premix 1

Ingredient	Amount (g/ml)
Almond dust	120
Coconut flour	40
Erythritol with Naturom	70
Cream of tartar baking powder	8
Locust bean cum	5
Vanillin	1
Xanthan gum	2
Salt	1

Vegetable margarine	150
Sparkling mineral or soda water	150

- 5 Premix 1 is placed in the bowl of a kneader. The water is added together with the vegetable margarine to premix 1 while stirring constantly, processed to form an even dough, poured into a mold and placed in the middle of an oven preheated to 180 °C with top and bottom heat and leave for 40 minutes left to bake. The biscuit base is then left to cool. The biscuit base can be spread with fresh fruit or a desired vegan cream, such as cocoa cream, coffee cream or the like,
- 10 or a cream can be filled in between two layers of the sponge cake base.

Such a biscuit base can either be eaten immediately or can be deep-frozen and reused at a later date.

15 5. Making a biscuit base 2

Premix 1

Ingredient	Amount (g)
Linseed flour	660
Sweetener mix (allulose, monk fruit and erythritol)	1188
Coconut flour	1320
Arrowroot flour	396
Baking powder	264
Guar gum	66

Coconut butter	2112
Water	4158

The linseed flour is briefly stirred with water and then the coconut flour and sweetener mix are mixed in. The remaining ingredients are added and processed into an even dough, filled into a mold and placed in the middle of an oven preheated to 150 °C with top and bottom heat and left to bake for 15 minutes. The biscuit base is then left to cool. The biscuit base can be spread with fresh fruit or a desired vegan cream, such as cocoa cream, coffee cream or the like, or a cream can be filled in between two layers of the sponge cake base.

Such a biscuit base can either be eaten immediately or can be deep-frozen and reused at a later date.

With the baking mixes according to the invention, it is possible to produce breads or cakes with a wide variety of flavours, which essentially correspond to traditionally baked breads and cakes in terms of taste and organoleptic properties, but it do not contain any animal ingredients and are also low in carbohydrates, so that they can be classified as both vegan and "low carb". Moreover their fat content is comparatively high, so that they can be used in a ketogenic diet.

Claims:

1. Baking mix for the production of vegan bakery products containing at least one premix consisting of a flour substitute, a binder, a leavening agent and at least one seasoning and optionally a sugar substitute and/or a sweetener, and additives comprising at least one fat component, characterized in that the premix consists of at least one flour substitute selected from almond dust, coconut flour, bean flour, pumpkin seed flour, walnut flour, dietary fibers or roughage fibers such as bamboo fibers, potato fibers, oat fibers, citrus fibers, apple fibers or mixtures from two or more of them, a binder selected from linseed flour, flea seed husk powder, locust bean gum, chia seed flour, xanthan gum, arrowroot flour, baking powder as a leavening agent, at least one seasoning and optionally the at least one sugar substitute and/or sweetener and that a mixture containing additives separately packaged from the premix is provided, which mixture comprises at least one vegetable fat and/or oil, water and optionally at least one sugar substitute and/or at least one sweetener.
2. Baking mix according to claim 1, characterized in that the at least one sugar substitute and/or the at least one sweetener can be provided in each of the mixtures to be used or else separately.
3. Baking mix according to one of claims 1 or 2, characterized in that the at least one sugar substitute and/or the at least one sweetener is selected from maltitol, erythritol, sorbitol, mannitol, isomaltitol, lactitol, xylitol, allulose, stevia, monk fruit or mixtures of two or more thereof.
4. Baking mix according to claim 1, 2 or 3, characterized in that the fat component consists of vegetable oils such as olive oil, rapeseed oil, linseed oil, walnut oil, sunflower oil and/or vegetable margarine selected from sunflower, rapeseed and/or or coconut fat or mixtures of two or more thereof.
5. Baking mix according to one of claims 1 to 4, characterized in that the water is selected from warm or cold tap water, soda water, sparkling or still mineral water and that the water optionally contains other minerals or mineral mixtures containing, for example, magnesium or iron are added.
6. Baking mix according to one of claims 1 to 5, characterized in that the least one seasoning is selected from salt, caraway, coriander, anise, onion, garlic, fennel, allspice, nutmeg, marjoram, oregano, Thyme, basil, chives, lovage, parsley, fenugreek, vanilla extract, vanillin, cocoa, lemon

juice or lemon flavour, orange juice or orange flavour, cinnamon, cloves, vinegar, or a mixture of two or more run away.

5 7. Baking mix according to one of Claims 1 to 6, characterized in that nuts, grains and/or dried fruits are also added to the premix.

10 8. Baking mix according to claim 7, characterized in that the nuts are selected from walnuts, pine nuts, hazelnuts, almonds or mixtures of two or more thereof, that the grains are selected from pumpkin seeds, sunflower seeds, linseed, chia seeds, poppy seeds or a mixture of two or more thereof and that the dried fruit is selected from grapes, apricots, plums, figs, dates, cranberries or a mixture of two or more from that.