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(54) **TOBACCO-CONTAINING ARTICLE**

TABAKHALTIGER ARTIKEL

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Description

[0001] The invention relates to a tobacco-containing article and to a method of manufacturing a tobacco-containing article.

[0002] Document US 5,135,010 discloses a composition comprising aromatic plant parts which can be used in a tobacco containing article.

[0003] Tobacco-containing articles, like cigarettes, cigarillos, cigars or fine-cut products for self-made cigarettes and snus products, are often aromatised by means of flavourants, as e.g. menthol. Generally, such flavourants provide an intense flavour and are added in relatively small amounts, preferably as a liquid, e.g. during the preparation and saucing of the tobacco.

[0004] A disadvantage of this kind of conventional flavouring is the volatility and tendency to loss of many flavourants.

[0005] It is also known to insert at least one flavour capsule into a tobacco-containing article, which can be broken by the consumer in order to release on demand the flavourant contained in the capsule. In this way, it is possible to use volatile flavourants, but the tobacco-containing article in question is more expensive.

[0006] It is an object of the invention to provide a tobacco-containing article which can offer to the consumer new taste and flavour experiences but, nevertheless, involves moderate manufacturing expenses only.

[0007] This object is achieved by a tobacco-containing article having the features of claim 1. Claim 16 relates to a method of manufacturing such a tobacco-containing article. Advantageous versions of the invention follow from the dependant claims.

[0008] The tobacco-containing article according to the invention comprises tobacco and aromatic plant parts which do not derive from the tobacco plant. The amount of the aromatic plant parts is in the range of from 0.5% by weight to 25% by weight, related to the total weight of the tobacco and the aromatic plant parts.

[0009] In advantageous embodiments of the invention, the aromatic plant parts have a size in the range of from 0.1 mm to 10 mm or in the range of from 0.2 mm to 6 mm. The size of the aromatic plant parts is defined by a screening method, which is described in detail further below. Shortly, the aromatic plant parts are submitted to a series of vibrating screens according to DIN ISO 3310-1 having generally square meshes of decreasing sizes. If the aromatic plant parts have a size in a given range, virtually all of them will pass a screen having the upper limit of the range as the nominal mesh size, whereas the aromatic plant parts will not pass a screen having the lower limit of the range as the nominal mesh size. Aromatic plant parts passing a mesh diagonally may have a greater length than the nominal mesh size, but they are included by definition. On the other hand, the material used for the aromatic plant parts may include some dust which even passes the smallest mesh size. This dust, by definition, is considered as not being a constituent of the aromatic plant parts. Its contribution is generally small. For a given advantageous embodiment, the total size range of the aromatic plant parts is embedded in one of the above ranges, but may have a smaller or even much smaller extension (spread of sizes). All lower limits of greater than 0.1 mm and all upper limits of less than 10 mm of such spread are expressly disclosed herewith.

[0010] The amount of the aromatic plant parts is provided as a weight related to the total weight of the tobacco and the aromatic plant parts. Therefore, any major dependency on the actual moisture of the aromatic plant parts or of the tobacco cancels out. In case the amount of the aromatic plant parts is to be measured with a high precision, the weight ratio shall be determined after equilibration of the aromatic plant parts and of the tobacco for 2 days at 22°C and at a relative humidity of 58-60%.

[0011] The tobacco-containing article according to the invention is an aromatised tobacco product, in which the aromatic plant parts are natural constituents and not artificial or concentrated aromas. This provides for a natural, maybe somewhat subliminal taste experience. The addition of artificial flavours, which otherwise would have to be added as alcoholic extracts, is not required, thus avoiding alcoholic constituents. Generally, the relative amount of the aromatic plant parts is greater than that of a conventional concentrated aroma substance, but not so great as to provide an obtrusive taste.

[0012] Since the aromatic plant parts are relatively large, e.g. in the range of from 0.1 mm to 10 mm or from 0.2 mm to 6 mm, they generally contain material in addition to any flavourants, e.g. in a plant cell structure, which is able to keep the flavourants and to reduce flavour loosening effects. This may result in a slightly increased flavour shelf life of the respective tobacco-containing article, compared to a conventional tobacco-containing article treated with a liquid aroma concentrate.

[0013] Due to the presence of a significant amount of aromatic plant parts in addition to the tobacco, the relative amount of tobacco is smaller than in a conventional tobacco product. In a cigarette, cigarillo or cigar, this results in a dilution effect regarding tobacco nicotine and other constituents as, e.g., ammonia or nitrate. Examples are provided further below. When the pH is increased because of the aromatic plant parts, the taste is generally stronger, although less nicotine is present.

[0014] The aroma of the side-stream smoke of, e.g., a cigarette can also be positively influenced and optimised, depending on the selection of the aromatic plant parts.

[0015] The visual appearance of the aromatic plant parts, which in many applications are leaves or leaf parts, implies

a natural product and a natural aromatisation. The tobacco-containing article in question can generate a pleasant smell, even before consumption.

[0016] In advantageous embodiments of the tobacco-containing article according to the invention, the aromatic plant parts comprise, e.g., spearmint, peppermint, anise, rosemary, wintergreen, ginger, lemon myrtle, lavender, mate, avocado, ground coffee beans, or any mixtures thereof. For example, spearmint or peppermint causes a pleasant aroma. A detailed (but not exclusive) list of plants delivering suitable aromatic plant parts is given further below.

[0017] In the tobacco-containing article, at least part of the tobacco and of the aromatic plant parts can be included in a combined mixture. That means, e.g. cut tobacco parts and aromatic plant parts (e.g., in the size range of from 0.2 mm to 6 mm or of from 0.1 mm to 10 mm) are mixed together to form a combined and preferably generally homogeneous mixture.

[0018] It is also possible that at least part of the tobacco comprises reconstituted tobacco. Sheets of reconstituted tobacco can be cut to form cut reconstituted tobacco, which can be mixed, e.g., with aromatic plant parts and also with natural cut tobacco.

[0019] Moreover, it is conceivable to make a reconstituted product from aromatic plant parts, e.g. in a way similar to one of the known processes of manufacturing reconstituted tobacco, so that at least part of the aromatic plant parts in the tobacco-containing article comprises a reconstituted product. A sheet of this reconstituted product can be cut to the desired size of the aromatic plant parts, e.g., in the range of from 0.2 mm to 6 mm or of from 0.1 mm to 10 mm.

[0020] In another embodiment, a reconstituted product is used which contains a mixture of tobacco parts and of aromatic plant parts. Such reconstituted product can also be produced in a manner analogous to conventional reconstituted tobacco. In this way, at least part of the tobacco and at least part of the aromatic plant parts are included in a combined reconstituted product, which can be cut to the desired size.

[0021] In an advantageous embodiment of the invention, at least part of the aromatic plant parts is provided in the form of granules, preferably of a size in the range of from 0.2 mm to 5 mm or from 0.5 mm to 2.5 mm. Such granules can be made of pressed aromatic plant parts and optionally additional water, without further additives. Granules comprising aromatic plant parts as well as tobacco are also conceivable.

[0022] In another advantageous embodiment of the invention, the tobacco-containing article includes a cut top-loaded sheet product, in which a base layer comprises or is made of reconstituted tobacco, wherein the base layer is provided on one side with aromatic plant parts. WO 03/082030 A discloses a method of manufacturing a top-loaded sheet product, in this case a top-loaded cigarette filler, in which a base layer on a basis of a fine fraction of tobacco and cellulose fibres is provided on one side with a fraction of course tobacco, wherein the assembly is subjected to a drying treatment. In an analogous manner, a base layer comprising reconstituted tobacco can be provided on one side with aromatic plant parts, and after drying this top-loaded sheet product is cut to pieces of the desired size.

[0023] It is also conceivable that the tobacco-containing article includes a cut top-loaded sheet product, in which a base layer comprises reconstituted aromatic plant parts, wherein the base layer is provided on one side with aromatic plant parts. This cut top-loaded sheet product constitutes at least part of the aromatic plant parts. It can be mixed with tobacco and/or reconstituted tobacco and optionally with additional aromatic plant parts.

[0024] If the aromatic plant parts are included in a reconstituted sheet product, the size of the aromatic plant parts in the range of from 0.1 mm to 10 mm or of from 0.2 mm to 6 mm is to be understood as the size of the aromatic plant part pieces used in the manufacturing process of the reconstituted sheet product. A reconstituted product is produced as generally known in the art.

[0025] In case the amount of natural aromas present in the aromatic plant parts is not sufficient for a specific design of a tobacco-containing article, at least one flavourant in addition to the aromatic plant parts can be added, preferably as a liquid. An example is the addition of menthol to achieve a super-aromatisation.

[0026] Typically, the aromatic plant parts can have a moisture of from 5% to 35%, preferably of from 5% to 20% or of from 7% to 12%, related to the total of the dry weight of the respective aromatic plant parts plus the moisture. After admixture to tobacco, moisture generally equilibrates between the aromatic plant parts and the tobacco, e.g. within a closed packaging.

[0027] Cigarettes typically have a moisture of from 7% to 14%. Snus typically has a moisture in the order of 35%.

[0028] Concerning the tobacco in the tobacco-containing article, all kinds of conventional tobaccos and tobacco blends, optionally including reconstituted tobacco, can be used. Examples are an American blend or a Virginia blend.

[0029] The tobacco-containing article according to the invention is provided as a cigarette, e.g., as a full-flavour cigarette having a tar level depending on regulatory ceilings, as a light cigarette having a tar level of up to 7 mg or as an ultralight cigarette having a tar level of up to 2 mg, or as a cigarillo or as a cigar. In such embodiments, the tobacco and the aromatic plant parts are contained in the rod of the cigarette, cigarillo or cigar, respectively. This does not exclude, however, that a filter also includes tobacco and/or aromatic plant parts.

[0030] In different embodiments of the invention, the tobacco-containing article is provided in the form of pipe tobacco or in the form of fine-cut for self-made cigarettes, packaged in a suitable enclosure. Self-made cigarettes are known as "RYO" (roll-your-own), which means that the consumer takes a portion of fine-cut comprising tobacco and aromatic plant

parts from a package, puts it on a cigarette paper (optionally with an additional filter), rolls the cigarette paper about the fine-cut and glues the seam of the cigarette paper. Another type of self-made cigarettes is "MYO" (make-your-own), wherein fine-cut is taken from a package and filled into some apparatus which, upon operation by the consumer, automatically or semiautomatically forms a finished smoking article.

[0031] If the tobacco-containing article is provided as a cigarette, cigarillo or cigar and comprises a rod, e.g. the rod of a cigarette, the rod (which comprises tobacco and aromatic plant parts) can be wrapped by a low-sidestream cigarette paper having a base weight in the range of from 35 g/m² to 60 g/m², having a porosity of less than 15 CU and including a filler. The filler comprises CaCO₃ of at least 30% and/or MgO of at least 3% and/or Mg(OH)₂ of at least 3%, the percentages being percent per weight of the respective compound, related to the total weight of the low-sidestream cigarette paper. 1 CU = 1 Coresta unit = 1 ml/(cm²·min·kPa).

[0032] The tobacco-containing article could also be provided in the form of snus, a product consumed by placing it under the lip for some period of time. Preferably, the snus comprising tobacco and aromatic plant parts is prepared in a grinded and sieved form. The snus parts can have a size range of, e.g., from 0.1 mm to 1.5 mm or from 0.1 mm to 0.8 mm.

[0033] In many applications, including embodiments already explained above, the tobacco-containing article comprises cut tobacco and/or cut sheet products. Generally, the cut width of the tobacco or the respective sheet product can be that of cut tobacco in conventional tobacco-containing articles, e.g., 0.2 mm to 0.75 mm for fine cut tobacco, greater than 1.5 mm for pipe tobacco, or 0.6 mm to 0.9 mm for typical cigarettes. Such widths can also be suitable to the aromatic plant parts, when used in cut leaf form or cut sheet form.

[0034] In an advantageous method of manufacturing a tobacco-containing article according to the invention, after cutting tobacco, aromatic plant parts, which do not derive from the tobacco plant and which have a size in the desired range, e.g., in the range of from 0.1 mm to 10 mm or in the range of from 0.2 mm to 6 mm, are added to the tobacco in an amount in the range of from 0.5% by weight to 25% by weight, related to the total weight of the tobacco and the aromatic plant parts.

[0035] That means that the tobacco or at least part of the tobacco is cut independently of the aromatic plant parts. Generally, it is conceivable that uncut, large aromatic plant parts are already added to tobacco parts like leaves, ribs or stems or to a reconstituted tobacco sheet before the cutting step is performed. It is advantageous, however, when the aromatic plant parts are admixed relatively late in the process because they might release a strong aroma which tends to contaminate the manufacturing equipment.

[0036] For example, aromatic plant parts (preferably cut ones) can be added during treatment of the cut tobacco, e.g., during blending or flavouring.

[0037] In the following, the invention is described in more detail, also by means of examples.

Screening method

[0038] In order to define reproducible sizes of the aromatic plant parts, a screening method is used. This method is performed in analogy to DIN V 10376 of February 2005 ("Analysis of tobacco and tobacco products - Determination of size of the fillers of cigars and cigarillos by means of sieve analysis").

[0039] To this end, the aromatic plant parts to be examined are moisture-conditioned at a relative humidity of (70 ± 2)% and at a temperature of (22 ± 1)°C for 48 h. If the particles were too dry, they would break during sieving, which would deliver erroneous results.

[0040] The moisture-conditioned aromatic plant parts are submitted to a stack of vibrating screens according to DIN ISO 3310-1 having meshes of decreasing sizes. If the aromatic plant parts have a size distribution in a given range, virtually all of them will pass a screen having the upper limit of the range as the nominal mesh size, whereas the aromatic plant parts will not pass a screen having the lower limit of the range as the nominal mesh size. Individual aromatic plant parts passing a mesh diagonally may have a greater length than the nominal mesh size, but they are included by definition. On the other hand, the material used for the aromatic plant parts may include some dust which even passes the smallest mesh size. This dust, by definition, is considered as not being a constituent of the aromatic plant parts. Its contribution is generally small.

[0041] Further details of the method follow from DIN V 10376. As already mentioned, the present screening method is performed in analogy thereto, with the following differences.

[0042] For screening leaves, the screening machine performs horizontal vibrations of 15 mm with a frequency of 270/min for 5 minutes (instead of 10 minutes). Mesh sizes of 1.18 mm, 2.36 mm and 4 mm are used. For screening granulates, the screening machine runs for 1 minute, and mesh sizes of 1.6 mm, 1.4 mm, 1.2 mm, 1.0 mm, 0.8 mm, 0.5 mm, 0.25 mm and 0 mm are used.

[0043] If a size distribution is to be determined with a higher accuracy, a stack of several screens can be used. In case the number of screens exceeds the capability of the screening machine, the size distribution can be determined sequentially.

Examples for aromatic plant parts

[0044] Generally, a large variety of plant species can be used as sources for the aromatic plant parts according to the invention. Spearmint, peppermint, anise, rosemary, wintergreen, ginger, lemon myrtle, lavender, mate, avocado, ground coffee beans have already been mentioned above. Depending on the plant species, the appropriate plant parts may derive from leaves, blossoms, fruits, roots, bark, etc. Mixtures of aromatic plant parts from different species are conceivable as well.

[0045] The following Table 1 includes a plurality of plant species which may be particularly useful for the purposes of the invention:

Table 1 Examples for plant species as source for aromatic plant parts

English Name	Latin Name
Anise	<i>Pimpinella anisum</i>
Apple	<i>Malus sylvestris</i>
Avocado	<i>Persea americana</i>
Bearberry	<i>Arctostaphylos uva ursi</i>
Black current (folia)	<i>Ribes nigrum</i>
Cinnamon (cortex)	<i>Cinnamomum spec.</i>
Coltsfoot	<i>Tussilago farfara</i>
Damask rose (flores)	<i>Rosa centifolia</i>
Damiana leaves (folia)	<i>Turnera diffusa</i>
Dandelion blooms	<i>Taraxacum officinalis</i>
Elder (flores)	<i>Sambucus nigra</i>
Eucalyptus	<i>Eucalyptus globulus</i>
German chamomile (flores)	<i>Matricaria chamomilla</i>
Ginger	<i>Zingiber officinale</i>
Ginkgo biloba	<i>Ginkgo biloba</i>
Hazelnut	<i>Corylus avellana</i>
Honeysuckle	<i>Lonicera spec.</i>
Hop blooms (glandulae)	<i>Humulus lupulus</i>
Jasmine (flores)	<i>Jasminum officinale</i>
Lady's mantle	<i>Alchemilla vulgaris</i>
Lavender (flores)	<i>Lavandula officinalis</i>
Lemon myrtle	<i>Backhousia citriodora</i>
Marshmallow herb (folia)	<i>Althaeae officinalis</i>
Maté (folia)	<i>Ilex paraguariensis</i>
Melissa (folia)	<i>Melissa officinalis</i>
Mint leaves	<i>Mentha crispata</i>
Mullein (folia)	<i>Verbascum densiflorum</i>
Orange blossom (flores)	<i>Citrus aurantium</i>
Papaya	<i>Carica papaya</i>
Passionflower (herba)	<i>Passiflora incarnata</i>
Peppermint	<i>Mentha piperita</i>
Red clover (flores)	<i>Trifolium pratense</i>
Red willow	<i>Cornus amomum</i>
Robinia blossom (flores)	<i>Robinia pseudoacacia</i>
Rose petals	<i>Rosa spec.</i>
Rosemary (folia)	<i>Rosmarinus officinalis</i>
Sage	<i>Salvia officinalis</i> , <i>S. triloba</i>
Sculicap	<i>Scutellaria spec.</i>
Spearmint	<i>Mentha spicata</i>
Summer savory (herba)	<i>Satureja hortensis</i>

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(continued)

English Name	Latin Name
Teas	e.g., from <i>Camellia sinensis</i>
Valerian root (radix)	<i>Valeriana officinalis</i>
Vervain (herba)	<i>Verbena odorata</i>
Wine leaves	<i>Vitis vinifera</i>
Wintergreen	<i>Gaultheria procumbens</i>
Yerba buena	<i>Clinopodium douglasii</i>
Yerba santa	<i>Eriodictyon californica</i>

Example 1: Spearmint

[0046] Spearmint (*Mentha spicata*) contains some (but not much) menthol, as well as carvone, pulegone, limonene and esters.

[0047] After equilibration at 22°C and 60% relative humidity, a sample of spearmint leaves had a relative moisture of 10.0%. Here and in the following, all relative moisture contents are related to the total of the dry weight (determined after oven treatment at 82°C for 3 h; "Horo" method) and the moisture.

[0048] From this sample, a mixture with American blend tobacco was prepared, which contained 10% by weight of spearmint leaves and 90% by weight of tobacco. After equilibration at 30°C and 75% relative humidity, the mixture had a relative moisture of 18.5%. Under the same equilibration conditions, the pure tobacco had a relative moisture of 19.1% and the pure spearmint sample a relative moisture of 13.7%.

[0049] The size distribution of the leaves of two different samples of spearmint leaves was determined by means of the screening method described above, using mesh sizes of 1.18 mm, 2.36 mm and 4 mm. In the first sample, about 2.6% by weight of the leaves did not pass the 4 mm mesh screen, about 27.3% by weight did not pass the 2.36 mm mesh screen, about 57.2% by weight did not pass the 1.18 mm mesh screen, and about 12.9% by weight passed the 1.18 mm mesh screen, the peak size being slightly more than 1.18 mm. In the second sample, the corresponding numbers were 10.2%, 63.1%, 24.8% and 2.0%, respectively, and the peak was at a leaf size of about 2 mm.

Example 2: Peppermint

[0050] Peppermint (*Mentha piperita*) contains menthol, menthone, cineol, tanning agents and flavonoids.

[0051] A sample of granulated peppermint, after equilibration at 22°C and 60% relative humidity, had a relative moisture of 8.6%.

[0052] The size distribution of the granules of this sample was determined by the screening method described above. Table 2 presents the fraction of the total sample of 402.34 g retained by a screen of a given mesh size (mesh sizes of 1.6 mm, 1.4 mm, 1.2 mm, 1.0 mm, 0.8 mm, 0.5 mm, 0.25 mm and 0 mm).

Table 2 Size distribution in a sample of granulated peppermint

Mesh size [mm]	Retained mass [g]	Fraction [%]
1.6	0.05	0.01
1.4	0.35	0.09
1.2	19.79	4.92
1.0	67.75	16.84
0.8	98.50	24.48
0.5	163.15	40.55
0.25	51.20	12.73
0	1.55	0.39
	402.34	100.00

[0053] Table 2 shows that essentially all of the granules have a size in the range of from 0.25 mm to 1.2 mm. The contribution of the particles passing the 0.25 mm mesh (dust) is negligible. The distribution peaks at about 0.5 mm.

Example 3: Spearmint, peppermint

[0054] As Example 3, two other samples of spearmint and peppermint were investigated. In both samples, the aromatic plant parts had a granular form. After equilibration at 22°C and 60% relative humidity, the spearmint sample had a relative moisture of 7.5% and the peppermint sample of 8.5%.

[0055] The size distributions of the granules, obtained as described above, are shown in Table 3.

Table 3 Size distributions in a sample of granulated spearmint and in a sample of granulated peppermint

Mesh size [mm]	Spearmint Fraction [%]	Peppermint Fraction [%]
1.6	0.04	0.02
1.4	0.02	0.08
1.2	0.12	0.28
1.0	10.00	15.56
0.8	43.78	39.94
0.5	43.69	41.06
0.25	2.31	3.04
0	0.04	0.04
	100.00	100.00

[0056] In both samples, the granules essentially have sizes in the range of from 0.25 mm to 1.2 mm, peaking somewhere between 0.5 mm and 0.8 mm.

Example 4: Mixture of tobacco and spearmint

[0057] In Example 4, one of the spearmint samples of Example 1 (that with the peak size of about 2 mm) was used to prepare virtually homogeneous mixtures of spearmint leaves and American blend tobacco. From mixtures containing 2%, 5%, 10% and 20% spearmint by weight (related to the total weight of spearmint and tobacco; designated by MS1, MS2, MS3, and MS4, respectively), filter cigarettes of 7.8 mm diameter with a cellulose acetate filter plug of 21 mm length and a tobacco/spearmint rod of 62 mm length were made. Some constituents of the tobacco/spearmint mixtures were analyzed. Moreover, properties of the cigarettes including smoke data (according to DIN ISO 4387/A) were measured. The results for the samples MS1, MS2, MS3, and MS4 as well as for a control sample CS (American blend tobacco without spearmint) are summarised in Table 4. The abbreviations used in Table 4 are explained at the end of Table 5 below.

[0058] It is evident from Table 4 that the tobacco nicotine (i.e. the relative amount of nicotine in the mixture of tobacco and spearmint) decreases with increasing amount of spearmint in the mixture. There is also the tendency that smoke nicotine decreases when the contribution of spearmint increases.

[0059] Moreover, with increasing amount of spearmint, the hardness of the cigarette decreases somewhat (not shown in Table 4).

Table 4 Data for cigarettes made from mixtures of American blend tobacco and spearmint

Sample		CS	MS1	MS2	MS3	MS4
Physical Data	Units					
Blend		AB	AB + 2% mint	AB + 5% mint	AB + 10% mint	AB + 20% mint
Format	mm	7.8 x (62+21)	7.8x (62+21)	7.8 x (62+21)	7.8 x (62+21)	7.8x (62+21)
Cigarette weight	mg	844	845	847	842	825
Oven Horo moisture	%	12.0	12.1	11.9	11.7	11.4
Diameter	mm	7.80	7.80	7.82	7.83	7.83
Pressure drop filter	mmWG	67.9	67.9	68.5	68.9	67.9
Pressure drop open Pdo*	mmWG	82	80	79	81	82

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(continued)

Sample		CS	MS1	MS2	MS3	MS4
Physical Data	Units					
Press. drop closed Pdc**	mmWG	129	124	123	126	129
Ventilation	%	46.1	46.7	47.0	46.8	46.1
Tobacco Data	Units					
Tobacco nicotine	% d.b.	2.30	2.29	2.19	1.98	1.80
Ammonia	% d.b.	0.17	0.17	0.17	0.16	0.15
Nitrate	% d.b.	1.02	1.09	0.99	0.94	0.92
Chloride	% d.b.	0.77	0.81	0.77	0.80	0.77
Sacchrose (HPLC)	% d.b.	1.6	1.7	1.7	1.7	1.8
Glucose (HPLC)	% d.b.	2.9	2.8	2.6	2.6	2.4
Fructose (HPLC)	% d.b.	4.2	4.2	3.9	3.9	3.6
Ash	% d.b.	15.6	15.6	15.5	15.5	15.1
Tobacco pH		5.43	5.40	5.47	5.53	5.60
Acid equivalents	***	11.7	11.5	10.9	10.0	9.0
Propylene glycol	% d.b.	1.1	1.1	1.1	1.1	0.9
Smoke Data (DIN ISO 4387/A)	Units					
Smoke nicotine	mg/Cig.	0.65	0.65	0.64	0.63	0.58
WTPM	mg/Cig.	8.0	8.0	8.0	8.1	8.0
NFDPM	mg/Cig.	6.5	6.5	6.6	6.8	6.6
Puff number		7.3	7.3	7.3	7.3	7.0
CO	mg/Cig.	7.2	6.9	6.9	7.4	7.1

Table 5 Data for cigarettes made from mixtures of American blend tobacco and black tea

Sample		CS	TS1	TS2	TS3	TS4
Physical Data	Units					
Blend		AB	AB + 2% black tea	AB + 5% black tea	AB + 10% black tea	AB + 20% black tea
Format	mm	7.8 x (62+21)	7.8 x (62+21)	7.8 x (62+21)	7.8 x (62+21)	7.8 x (62+21)
Cigarette weight	mg	844	847	846	847	842
Oven Horo moisture	%	12.0	11.8	11.7	11.5	10.9
Pressure drop open Pdo*	mmWG	82	79	79	78	75
Press. drop closed Pdc**	mmWG	129	125	122	119	111
Ventilation	%	46.1	47.3	46.7	45.9	44.6

(continued)

Tobacco Data		Units					
5	Tobacco nicotine	% d.b.	2.30	2.20	2.24	2.11	1.89
	Ammonia	% d.b.	0.17	0.17	0.16	0.16	0.15
	Nitrate	% d.b.	1.02	1.02	1.13	0.96	0.95
	Chloride	% d.b.	0.77	0.76	0.75	0.70	0.68
	Sacchrose (HPLC)	% d.b.	1.6	1.7	1.7	1.6	1.5
10	Glucose (HPLC)	% d.b.	2.9	2.6	2.6	2.7	2.4
	Fructose (HPLC)	% d.b.	4.2	3.9	3.9	3.9	3.5
	Tobacco pH		5.43	5.47	5.48	5.46	5.45
	Acid equivalents	***	11.3	11.3	11.0	11.0	10.5
15	Propylene glycol	% d.b.	1.1	1.1	1.2	1.1	0.9
Smoke Data (DIN ISO 4387/A)		Units					
20	Smoke nicotine	mg/Cig.	0.65	0.63	0.65	0.68	0.70
	WTPM	mg/Cig.	8.0	8.1	8.2	8.4	9.1
	NFDPM	mg/Cig.	6.5	6.7	6.8	7.1	7.7
	Puff number		7.3	7.2	7.3	7.4	7.6
25	CO	mg/Cig.	7.2	7.1	6.9	7.0	6.9

Explanations to Tables 4 and 5

[0060]

CS: Control sample
 MS1-MS4: Spearmint samples 1-4
 TS1-TS4: Black tea samples
 Cigarette format: Standard King Size Cigarette with a cigarette paper of 60 Coresta
 * Pressure drop measured with open filter wrapper perforation
 ** Pressure drop measured with closed filter wrapper perforation
 *** in mg KOH/g tobacco d.b.
 AB: American Blend
 d.b.: dry base
 mmWG: millimeter Water Gauge (ISO 10185)
 HPLC: High Performance Liquid Chromatography
 WTPM: Wet Total Particulate Matter (ISO 10185)
 NFDPM: Nicotine Free Dry Particulate Matter (ISO 10185)
 Cig.: Cigarette

Example 5: Mixture of tobacco and black tea

(not part of the invention)

[0061] In Example 5, virtually homogeneous mixtures of American blend tobacco and black tea (loose leaves) were prepared. From mixtures containing 2%, 5%, 10% and 20% black tea by weight (related to the total weight of black tea and tobacco; designated by TS1, TS2, TS3, and TS4, respectively), filter cigarettes of 7.8 mm diameter with a cellulose acetate filter plug of 21 mm length and a tobacco/black tea rod of 62 mm length were made. Some constituents of the tobacco/black tea mixtures were analyzed. Moreover, properties of the cigarettes including smoke data (according to DIN ISO 4387/A) were measured. The results for the samples TS1, TS2, TS3, and TS4 as well as for a control sample CS (American blend tobacco without black tea) are summarised in Table 5. The abbreviations used in Table 5 are explained at the end of the table.

[0062] Table 5 shows that the tobacco nicotine (i.e. the relative amount of nicotine in the mixture of tobacco and black

tea) decreases with increasing amount of black tea in the mixture.

Example 6: Storage behaviour

[0063] The relative losses of flavour constituents from filter cigarettes made from mixtures of American blend tobacco and spearmint according to Example 4 were investigated. To this end, cigarette boxes containing cigarettes comprising the mixtures MS1 and MS3 were stored for six months under different conditions, i.e. as a closed box in a refrigerator, as a closed box at room temperature and as an opened box at room temperature. Spearmint aroma constituents were determined by gas chromatography before and after six months of storage.

[0064] Table 6 shows, for both mixtures MS1 and MS3, averages of the absolute amounts of the spearmint aroma constituents before storage and of the relative losses (related to the initial amounts) after six months of storage.

Table 6 Aroma constituents in cigarettes containing American blend tobacco and spearmint according to Example 4, initially and relative loss after 6 months of storage

Spearmint constituent	Initial amount µg/Cig.	6 m. refrig. clos. loss%	6 m. room clos. loss%	6 m. room open loss%	Initial amount pg/Cig.	6 m. refrig. clos. loss%	6 m. room clos. loss%	6 m. room open loss%
	MS1				MS3			
Pulegone	23.7	16.5	18.3	43.0	150.0	19.2	13.6	41.2
Carvone	103.1	24.8	22.0	31.0	555.6	23.8	18.1	45.6

[0065] The results in Table 6 exhibit the following trends: The relative losses of spearmint constituents from closed boxes stored at room temperature and from closed boxes stored in a refrigerator are similar. In case of opened packs stored at room temperature, the relative losses are significantly higher. For cigarettes with a greater spearmint contribution, the relative losses tend to be somewhat higher. Moreover, migration of the spearmint constituents during the storage period resulted in some aroma accumulation in the cigarette filters (data not shown in Table 6).

Example 7: Mixture of tobacco and lemon myrtle

[0066] In Example 7, lemon myrtle (*Backhousia citriodora*) was used to prepare virtually homogeneous mixtures of lemon myrtle leaves and American blend tobacco. From mixtures containing 2%, 5%, 10% and 20% lemon myrtle by weight (related to the total weight of lemon myrtle and tobacco), designated by LM1, LM2, LM3 and LM4, respectively, filter cigarettes of 7.8 mm diameter with a cellulose acetate filter plug of 25 mm length and a tobacco/lemon myrtle rod of 58 mm in length were made. Some constituents of the tobacco/lemon myrtle mixtures were analysed. Moreover, properties of the cigarettes including smoke data (according to DIN ISO 4387/A) were measured. The results for the samples LM1, LM2, LM3 and LM4 as well as for a control sample CS (American blend tobacco without lemon myrtle) are summarised in Table 7. The abbreviations used in Table 7 are explained at the end of Table 7.

[0067] It is evident from Table 7 that the tobacco nicotine (i.e. the relative amount of nicotine in the mixture of tobacco and lemon myrtle) decreases with increasing amount of lemon myrtle in the mixture. Any decrease of smoke nicotine was not observed.

Table 7 Data for cigarettes made from mixtures of American blend tobacco and lemon myrtle

Sample		CS	LM1	LM2	LM3	LM4
Physical Data	Units					
Blend		AB	AB + 2%LM	AB + 5%LM	AB + 10%LM	AB + 20%LM
Format	mm	7.8 x (58+25)	7.8 x (58+25)	7.8 x (58+25)	7.8 x (58+25)	7.8 x (58+25)
Cigarette weight	mg	823	832	838	855	853
Oven Horo moisture	%	11.5	10.8	11.1	11.0	10.3

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(continued)

Sample		CS	LM1	LM2	LM3	LM4
Physical Data	Units					
Pressure drop open Pdo*	mmWG	71	73	74	72	68
Pressure drop closed Pdc**	mmWG	118	121	121	119	110
Ventilation	%	51.7	50.6	50.2	51.5	51.4
Tobacco Data	Units					
Tobacco nicotine	% d.b.	2.33	2.28	2.07	1.95	1.75
Ammonia	% d.b.	0.16	0.16	0.15	0.14	0.13
Nitrate	% d.b.	1.04	1.00	1.04	1.00	0.85
Chloride	% d.b.	0.93	0.90	0.96	0.93	0.89
Sacchrose (HPLC)	% d.b.	1.4	1.4	1.4	1.4	1.4
Glucose (HPLC)	% d.b.	2.1	2.0	2.0	1.9	1.9
Fructose (HPLC)	% d.b.	3.0	3.0	3.1	2.9	3.1
Tobacco pH		5.54	5.56	5.59	5.57	5.54
Acid equivalents	***	11.0	10.6	10.1	9.8	9.4
Propylene Glycol	% d.b.	1.2	1.2	1.2	1.2	1.1
Smoke Data (DIN ISO 4387/A)						
Smoke nicotine	mg/Cig.	0.48	0.52	0.53	0.54	0.54
WTPM	mg/Cig.	6.5	6.9	7.1	7.2	7.7
NFDPM	mg/Cig.	5.3	5.9	6.0	6.2	6.6
Puff Number		6.1	6.3	6.6	6.7	6.8
CO	mg/Cig.	5.3	5.7	5.8	5.9	6.2

Explanations to Tables 7 and 8

[0068]

CS: Control Sample

LM1-LM4: Lemon Myrtle samples 1-4

G1-G3: Ginger samples 1-3

* Pressure drop measured with open filter wrapper perforation

** Pressure drop measured with closed filter wrapper perforation

*** in mg KOH/g tobacco d.b.

AB: American Blend

d.b.: dry base

mmWG: millimeter Water Gauge (ISO 10185)

HPLC: High Performance Liquid Chromatography

WTPM: Wet Total Particulate Matter (ISO 10185)

NFDPM: Nicotine Free Dry Particulate Matter (ISO 10185)

Cig.: Cigarette

Example 8: Mixture of tobacco and ginger

[0069] In Example 8, ginger (*Zingiber officinale*) was used to prepare virtually homogeneous mixtures of dried ginger rhizome particles and American blend tobacco. From mixtures containing 2%, 5%, and 10% ginger by weight (related to the total weight of ginger and tobacco), designated by G1, G2 and G3, respectively, filter cigarettes of 7.9 mm diameter with a cellulose acetate filter plug of 27 mm length and a tobacco/ginger rod of 56 mm in length were made. Some constituents of the tobacco/ginger mixtures were analysed. Moreover, properties of the cigarettes including smoke data (according to DIN ISO 4387/A) were measured. The results for the samples G1, G2 and G3 as well as for a control sample CS (American blend tobacco without ginger) are summarised in Table 8. The abbreviations used in Table 8 are explained at the end of Table 7 above.

[0070] It is evident from Table 8 that the tobacco nicotine (i.e. the relative amount of nicotine in the mixture of tobacco and ginger) decreases with increasing amount of ginger in the mixture. Any decrease of smoke nicotine was not observed.

Table 8 Data for cigarettes made from mixtures of American blend tobacco and ginger

Sample		CS	G1	G2	G3
Physical Data	Units				
Blend		AB	AB + 2% Ginger	AB+5% Ginger	AB+10% Ginger
Fomat	mm	7.9 x (56+27)	7.9 x (56+27)	7.9 x (56+27)	7.9 x (56+27)
Cigarette weight	mg	907	858	842	905
Pressure drop closed Pdc**	mmWG	169	165	158	172
Ventilation	%	0.0	0.0	0.0	0.0
Tobacco Data	Units				
Tobacco nicotine	% d.b.	2.36	2.23	2.08	2.05
Ammonia	% d.b.	0.18	0.17	0.17	0.16
Nitrate	% d.b.	1.05	1.00	0.97	0.95
Chloride	% d.b.	0.95	0.86	0.79	0.86
Sacchrose (HPLC)	% d.b.	1.6	1.6	1.1	1.7
Glucose (HPLC)	% d.b.	2.0	2.0	1.9	2.0
Fructose (HPLC)	% d.b.	3.0	3.0	3.0	3.0
Tobacco pH		5.58	5.59	5.53	5.60
Acid equivalents	***	10.7	10.6	10.9	10.0
Propylene Glycol	% d.b.	1.2	1.2	0.7	1.1
Smoke Data DIN ISO 4387/A					
Smoke nicotine	mg/Cig.	0.62	0.62	0.60	0.67
WTPM:	mg/Cig.	10.1	10.2	10.0	10.8
NFDPM	mg/Cig.	8.1	8.4	8.2	8.8
Puff Number		5.9	6.1	5.9	6.8
CO	mg/Cig.	11.7	12.3	12.1	12.5

Example 9: Mixture of tobacco and lavender

[0071] Cigarettes containing 2% and 5% of lavender (*Lavandula officinalis*) blossoms (related to the total weight of lavender and tobacco) were produced according to Example 4. The cigarettes were smoked by an expert panel to evaluate their taste properties. While the 2%-lavender sample was judged to have a slightly soapy and perfume-like taste, lavender taste was clearly identified in the 5%-sample.

[0072] Both versions were also machine-smoked in an experimental stainless-steel chamber. After smoking was finished, the air in the closed chamber was thoroughly mixed by fans. A trained smell panel was asked to evaluate the smoke in the chamber using a standard questionnaire. It was found that smoke intensity remained unchanged compared to a standard cigarette while the smoke smell was judged to be less intense and more pleasant for the 2%-lavender sample. A similar effect was noted for the 5%-sample, but in contrast to the 2%-sample, a distinct lavender smell was also recognized.

Example 10: Tobacco/lavender with low-sidestream paper

[0073] Cigarettes containing 2% lavender blossoms (related to the total weight of lavender and tobacco) were produced according to Examples 4 and 5, but instead of a conventional cigarette paper, a low-sidestream (LSS) cigarette paper was used. The paper had a porosity of 6 CU, a base weight of 45 g/m² and a filler content of 45% calcite. 1 CU = 1 Coresta unit = 1 ml/(cm²·min·kPa).

[0074] The smoke smell in an experimental chamber was evaluated as in Example 9. The panel found that not only smoke intensity was reduced compared to a conventional cigarette but also the smoke smell was more pleasant and less irritating.

Claims

1. Tobacco-containing article, comprising

- tobacco and
- aromatic plant parts, which do not derive from the tobacco plant,
- wherein the amount of the aromatic plant parts is in the range of from 0.5% by weight to 25% by weight, related to the total weight of the tobacco and the aromatic plant parts, and
- wherein the tobacco-containing article is provided as one of the following tobacco-containing articles: a cigarette, a cigarillo, a cigar, pipe tobacco, fine-cut for self-made cigarettes,

characterised in that the aromatic plant parts comprise at least one of the substances selected from the following list: spearmint, peppermint, anise, rosemary, wintergreen, avocado, ground coffee beans, lavender, mate, ginger, lemon myrtle.

2. Tobacco-containing article according to claim 1, **characterised in that** the aromatic plant parts have a size, defined by a screening method, in the range of from 0.1 mm to 10 mm.

3. Tobacco-containing article according to claim 2, **characterised in that** the aromatic plant parts have a size in the range of from 0.2 mm to 6 mm.

4. Tobacco-containing article according to anyone of claims 1 to 3, **characterised in that** at least part of the tobacco and of the aromatic plant parts are included in a combined mixture.

5. Tobacco-containing article according to anyone of claims 1 to 4, **characterised in that** at least part of the tobacco comprises reconstituted tobacco.

6. Tobacco-containing article according to anyone of claims 1 to 5, **characterised in that** at least part of the aromatic plant parts comprises a reconstituted product.

7. Tobacco-containing article according to anyone of claims 1 to 4, **characterised in that** at least part of the tobacco and of the aromatic plant parts are included in a combined reconstituted product.

8. Tobacco-containing article according to anyone of claims 1 to 7, **characterised in that** at least part of the aromatic plant parts is provided in the form of granules, preferably of a size in the range of from 0.2 mm to 5 mm or from 0.5 mm to 2.5 mm.

9. Tobacco-containing article according to claim 8, **characterised in that** at least part of the granules consists of pressed aromatic plant parts and optionally additional water, without further additives.

10. Tobacco-containing article according to anyone of claims 1 to 9, **characterised by** a cut top-loaded sheet product, in which a base layer comprises reconstituted tobacco, wherein the base layer is provided on one side with aromatic plant parts.
- 5 11. Tobacco-containing article according to anyone of claims 1 to 10, **characterised by** a cut top-loaded sheet product, in which a base layer comprises reconstituted aromatic plant parts, wherein the base layer is provided on one side with aromatic plant parts.
- 10 12. Tobacco-containing article according to anyone of claims 1 to 11, **characterised by** at least one flavourant in addition to the aromatic plant parts, preferably added as a liquid.
13. Tobacco-containing article according to anyone of claims 1 to 12, **characterised in that** the tobacco comprises an American blend or a Virginia blend.
- 15 14. Tobacco-containing article according to anyone of claims 1 to 13, **characterised in that** the aromatic plant parts have a moisture of from 5% to 35%, preferably of from 5% to 20% or from 7% to 12%, related to the dry weight of the respective aromatic plant parts plus the moisture.
- 20 15. Tobacco-containing article according to anyone of claims 1 to 14, **characterised in that** the tobacco-containing article comprises a rod, which is wrapped by a low-sidestream cigarette paper having a base weight in the range of from 35 g/m² to 60 g/m², having a porosity of less than 15 CU and comprising a filler, wherein the filler comprises at least one of the compounds selected from the following list: CaCO₃ of at least 30%, MgO of at least 3%, Mg(OH)₂ of at least 3%, the percentages being percent per weight of the respective compound, related to the total weight of the low-sidestream cigarette paper.
- 25 16. Method of manufacturing a tobacco-containing article according to claim 1, wherein, after cutting tobacco, aromatic plant parts, which do not derive from the tobacco plant and which, preferably, have a size defined by a screening method in the range of from 0.1 mm to 10 mm or in the range of from 0.2 mm to 6 mm, are added to the tobacco in an amount in the range of from 0.5% by weight to 25% by weight, related to the total weight of the tobacco and the aromatic plant parts, wherein the aromatic plant parts comprise at least one of the substances selected from the following list: spearmint, peppermint, anise, rosemary, wintergreen, avocado, ground coffee beans, lavender, mate, ginger, lemon myrtle.
- 30 17. Method according to claim 16, **characterised in that** aromatic plant parts are added during treatment of the cut tobacco.
- 35

Patentansprüche

- 40 1. Tabakhaltiger Artikel, mit
- Tabak und
 - aromatischen Pflanzenteilen, die nicht von der Tabakpflanze stammen,
 - wobei die Menge an aromatischen Pflanzenteilen im Bereich von 0,5 Gew.-% bis 25 Gew.-% liegt, bezogen auf das Gesamtgewicht des Tabaks und der aromatischen Pflanzenteile, und
 - wobei der tabakhaltige Artikel als einer der folgenden tabakhaltigen Artikel vorgesehen ist: eine Zigarette, ein Cigarillo, eine Cigarre, Pfeifentabak, Feinschnitt für selbsthergestellte Zigaretten,
- 45
- dadurch gekennzeichnet, dass** die aromatischen Pflanzenteile wenigstens eine der aus der folgenden Liste ausgewählten Substanzen aufweisen: Grüne Minze, Pfefferminze, Anis, Rosmarin, Niedere Scheinbeere, Avocado, gemahlene Kaffeebohnen, Lavendel, Mate, Ingwer, Zitronenmyrte.
- 50
2. Tabakhaltiger Artikel nach Anspruch 1, **dadurch gekennzeichnet, dass** die aromatischen Pflanzenteile eine durch ein Siebverfahren definierte Größe im Bereich von 0,1 mm bis 10 mm haben.
- 55
3. Tabakhaltiger Artikel nach Anspruch 2, **dadurch gekennzeichnet, dass** die aromatischen Pflanzenteile eine Größe im Bereich von 0,2 mm bis 6 mm haben.

4. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** wenigstens ein Teil des Tabaks und der aromatischen Pflanzenteile in einer kombinierten Mischung enthalten sind.
5. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** wenigstens ein Teil des Tabak rekonstituierten Tabak aufweist.
6. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 5, **dadurch gekennzeichnet, dass** wenigstens ein Teil der aromatischen Pflanzenteile ein rekonstituiertes Produkt aufweist.
7. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** wenigstens ein Teil des Tabaks und der aromatischen Pflanzenteile in einem kombinierten rekonstituierten Produkt enthalten sind.
8. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** wenigstens ein Teil der aromatischen Pflanzenteile in Form von Granulen bereitgestellt ist, vorzugsweise mit einer Größe im Bereich von 0,2 mm bis 5 mm oder von 0,5 mm bis 2,5 mm.
9. Tabakhaltiger Artikel nach Anspruch 8, **dadurch gekennzeichnet, dass** wenigstens ein Teil der Granulen aus gepressten aromatischen Pflanzenteilen und optional zusätzlichem Wasser besteht, ohne weitere Additive.
10. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 9, **gekennzeichnet durch** ein geschnittenes oben beladenes Blattprodukt, in dem eine Basislage rekonstituierten Tabak aufweist, wobei die Basislage auf einer Seite mit aromatischen Pflanzenteilen versehen ist.
11. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 10, **gekennzeichnet durch** ein geschnittenes oben beladenes Blattprodukt, in dem eine Basislage rekonstituierte aromatische Pflanzenteile aufweist, wobei die Basislage auf einer Seite mit aromatischen Pflanzenteilen versehen ist.
12. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 11, **gekennzeichnet durch** wenigstens einen Aromastoff zusätzlich zu den aromatischen Pflanzenteilen, der vorzugsweise als eine Flüssigkeit hinzugefügt ist.
13. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 12, **dadurch gekennzeichnet, dass** der Tabak eine amerikanische Mischung oder eine Virginia-Mischung aufweist.
14. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 13, **dadurch gekennzeichnet, dass** die aromatischen Pflanzenteile eine Feuchte von 5% bis 35% haben, vorzugsweise von 5% bis 20% oder von 7% bis 12%, bezogen auf das Trockengewicht der jeweiligen aromatischen Pflanzenteile plus der Feuchtigkeit.
15. Tabakhaltiger Artikel nach einem der Ansprüche 1 bis 14, **dadurch gekennzeichnet, dass** der tabakhaltige Artikel einen Stab aufweist, der mit einem Cigarettenpapier für niedrigen Seitenstromrauch mit einem Basisgewicht im Bereich von 35 g/m² bis 60 g/m² umwickelt ist, das eine Porosität von weniger als 15 CU hat und einen Füllstoff aufweist, wobei der Füllstoff wenigstens eine der aus der folgenden Liste ausgewählten Verbindungen aufweist: CaCO₃ von wenigstens 30%, MgO von wenigstens 3%, Mg(OH)₂ von wenigstens 3%, wobei die Prozentangaben Gew.-% der jeweiligen Verbindung sind, bezogen auf das Gesamtgewicht des Cigarettenpapiers für niedrigen Seitenstromrauch.
16. Verfahren zum Herstellen eines tabakhaltigen Artikels nach Anspruch 1, wobei nach dem Schneiden von Tabak aromatische Pflanzenteile, die nicht von der Tabakpflanze stammen und die vorzugsweise eine Größe, definiert durch ein Siebverfahren, im Bereich von 0,1 mm bis 10 mm oder im Bereich von 0,2 mm bis 6 mm haben, zu dem Tabak in einer Menge im Bereich von 0,5 Gew.-% bis 25 Gew.-%, bezogen auf das Gesamtgewicht des Tabaks und der aromatischen Pflanzenteile, hinzugefügt werden, wobei die aromatischen Pflanzenteile wenigstens eine der aus der folgenden Liste ausgewählten Substanzen aufweisen: Grüne Minze, Pfefferminze, Anis, Rosmarin, Niedere Scheinbeere, Avocado, gemahlene Kaffeebohnen, Lavendel, Mate, Ingwer, Zitronenmyrte.
17. Verfahren nach Anspruch 16, **dadurch gekennzeichnet, dass** aromatische Pflanzenteile während der Behandlung des Schnitttabaks hinzugefügt werden.

Revendications

1. Article contenant du tabac, comprenant :

- du tabac et
- des parties de plante aromatique, qui ne proviennent pas de la plante de tabac,
- dans lequel la quantité des parties de plante aromatique est comprise dans l'intervalle de 0,5 % en poids à 25 % en poids, relativement au poids total du tabac et des parties de plante aromatique, et
- dans lequel l'article contenant du tabac se présente sous la forme de l'un des articles suivants : une cigarette, un cigarillo, un cigare, du tabac pour pipe, du tabac coupe fine servant de tabac à rouler,

caractérisé en ce que les parties de plante aromatique comprennent au moins une substance choisie dans la liste suivante :

menthe verte, menthe poivrée, anis vert, romarin, gaulthérie, avocat, café moulu, lavande, maté, gingembre, myrte citronné.

2. Article contenant du tabac selon la revendication 1, **caractérisé en ce que** les parties de plante aromatique ont une taille, définie par un procédé de criblage, comprise dans l'intervalle de 0,1 mm à 10 mm.

3. Article contenant du tabac selon la revendication 2, **caractérisé en ce que** les parties de plante aromatique ont une taille comprise dans l'intervalle de 0,2 mm à 6 mm.

4. Article contenant du tabac selon l'une quelconque des revendications 1 à 3, **caractérisé en ce qu'**au moins une partie du tabac et des parties de plante aromatique sont comprises dans un mélange combiné.

5. Article contenant du tabac selon l'une quelconque des revendications 1 à 4, **caractérisé en ce qu'**au moins une partie du tabac comprend du tabac reconstitué.

6. Article contenant du tabac selon l'une quelconque des revendications 1 à 5, **caractérisé en ce qu'**au moins une partie des parties de plante aromatique comprend un produit reconstitué.

7. Article contenant du tabac selon l'une quelconque des revendications 1 à 4, **caractérisé en ce qu'**au moins une partie du tabac et des parties de plante aromatique sont comprises dans un produit reconstitué combiné.

8. Article contenant du tabac selon l'une quelconque des revendications 1 à 7, **caractérisé en ce qu'**au moins une partie des parties de plante aromatique est fournie sous la forme de granules, de préférence d'une taille comprise dans l'intervalle de 0,2 mm à 5 mm ou de 0,5 mm à 2,5 mm.

9. Article contenant du tabac selon la revendication 8, **caractérisé en ce qu'**au moins une partie des granules est constituée de parties de plante aromatique pressées et éventuellement d'eau additionnelle, sans autre additif.

10. Article contenant du tabac selon l'une quelconque des revendications 1 à 9, **caractérisé par** un produit en feuille à chargement par le haut, dans lequel une couche de base comprend du tabac reconstitué, la couche de base étant pourvue de parties de plante aromatique sur un côté.

11. Article contenant du tabac selon l'une quelconque des revendications 1 à 10, **caractérisé par** un produit en feuille à chargement par le haut, dans lequel une couche de base comprend des parties de plante aromatique reconstituée, la couche de base étant pourvue de parties de plante aromatique sur un côté.

12. Article contenant du tabac selon l'une quelconque des revendications 1 à 11, **caractérisé par** au moins une essence en plus des parties de plante aromatique, de préférence ajoutée sous la forme d'un liquide.

13. Article contenant du tabac selon l'une quelconque des revendications 1 à 12, **caractérisé en ce que** le tabac comprend un mélange américain ou un mélange de Virginie.

14. Article contenant du tabac selon l'une quelconque des revendications 1 à 13, **caractérisé en ce que** les parties de plante aromatique ont une humidité de 5 % à 35 %, de préférence de 5 % à 20 % ou de 7 % à 12 %, par rapport

au poids sec des parties de plante aromatique respectives plus l'humidité.

- 5 15. Article contenant du tabac selon l'une quelconque des revendications 1 à 14, **caractérisé en ce que** l'article contenant du tabac comprend une baguette, qui est enveloppée dans un papier à cigarette à faible courant secondaire ayant un grammage compris dans l'intervalle de 35 g/m² à 60 g/m², ayant une porosité inférieure à 15 CU et comprenant un élément de remplissage, l'élément de remplissage comprenant au moins un composé choisi dans la liste suivante : CaCO₃ pour au moins 30 %, MgO pour au moins 3 %, Mg(OH)₂ pour au moins 3 %, les pourcentages étant des pourcentages en poids du composé respectif par rapport au poids total du papier à cigarette à faible courant secondaire.
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16. Procédé de fabrication d'un article contenant du tabac selon la revendication 1, dans lequel, après avoir coupé du tabac, des parties de plante aromatique, qui ne proviennent pas de la plante de tabac et qui, de préférence, ont une taille définie par un procédé de criblage comprise dans l'intervalle de 0,1 mm à 10 mm ou dans l'intervalle de 0,2 mm à 6 mm, sont ajoutées au tabac en une quantité comprise dans l'intervalle de 0,5 % en poids à 25 % en poids, relativement au poids total du tabac et des parties de plante aromatique, dans lequel les parties de plante aromatique comprennent au moins une substance choisie dans la liste suivante : menthe verte, menthe poivrée, anis vert, romarin, gaulthérie, avocat, café moulu, lavande, maté, gingembre, myrte citronné.
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17. Procédé selon la revendication 16, **caractérisé en ce que** des parties de plante aromatique sont ajoutées pendant le traitement du tabac haché.
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REFERENCES CITED IN THE DESCRIPTION

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