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(54) **AN AEROSOL GENERATING MATERIAL**

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ABSTRACT

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The invention relates to an aerosol generating material comprising a blend, the blend comprising at least 20% lamina tobacco, and the material is in the form of discrete particles. The invention also relates to articles for an aerosol provision system, the articles comprising a first aerosol generating material and a second aerosol generating material.

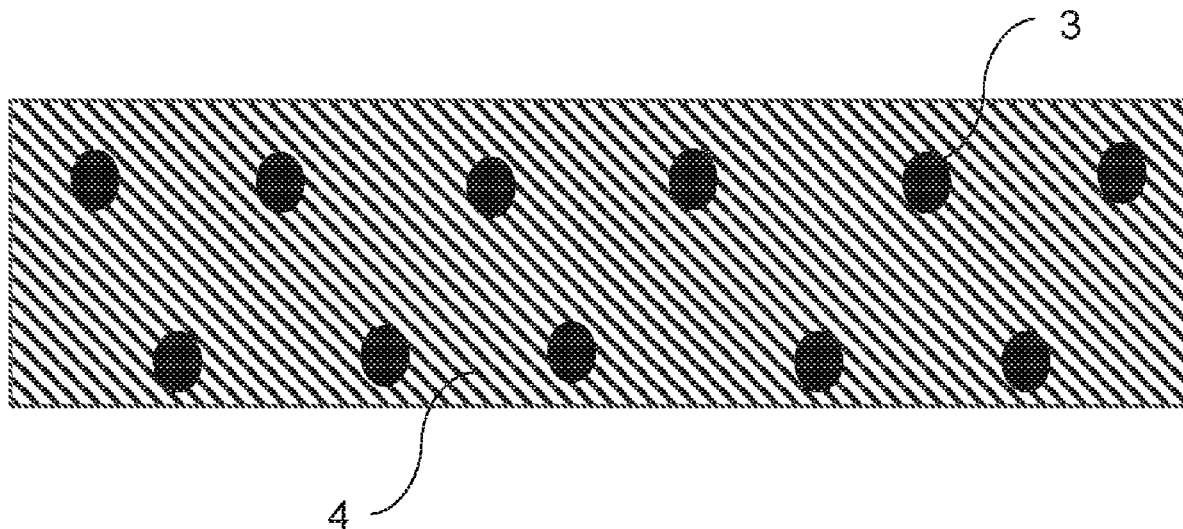


Figure 1

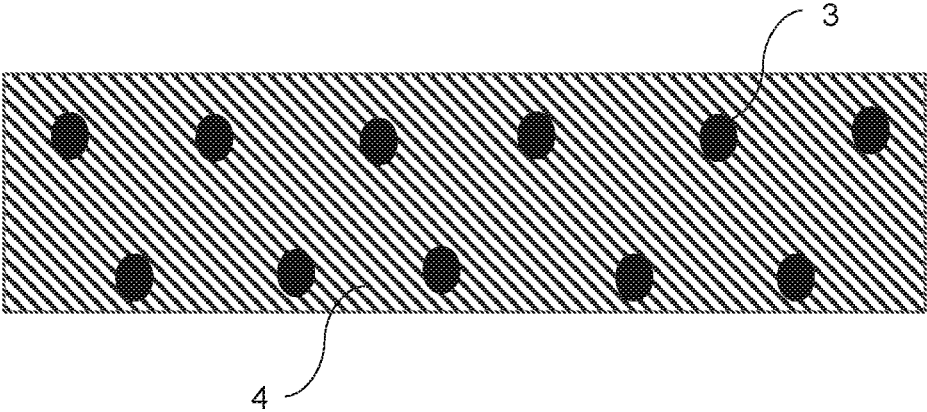


Figure 2

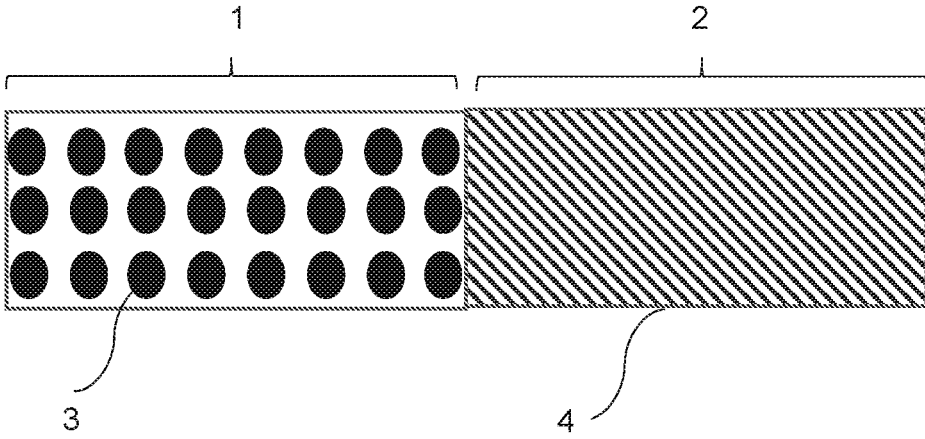


Figure 3

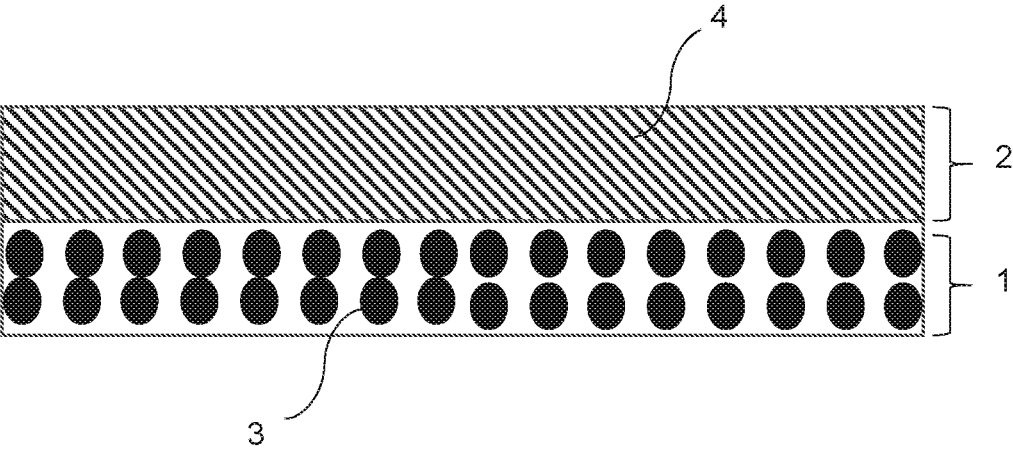


Figure 4

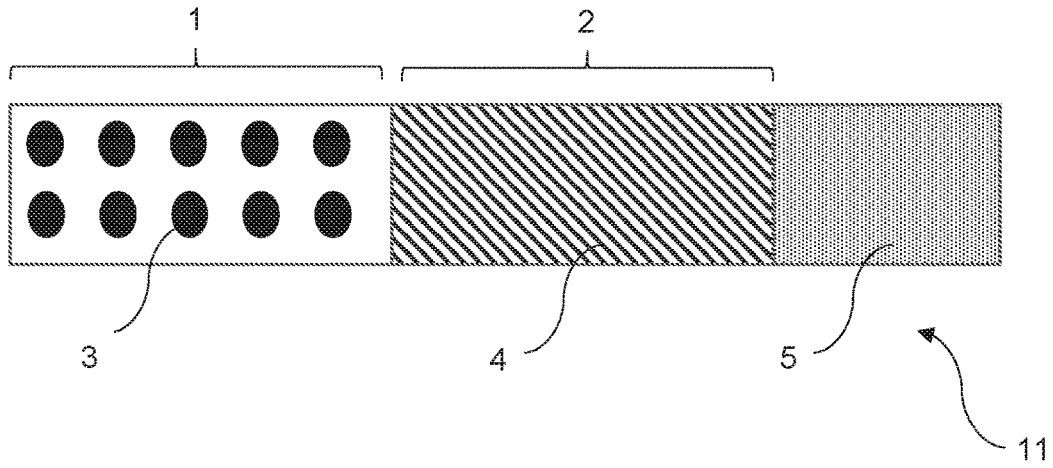


Figure 5

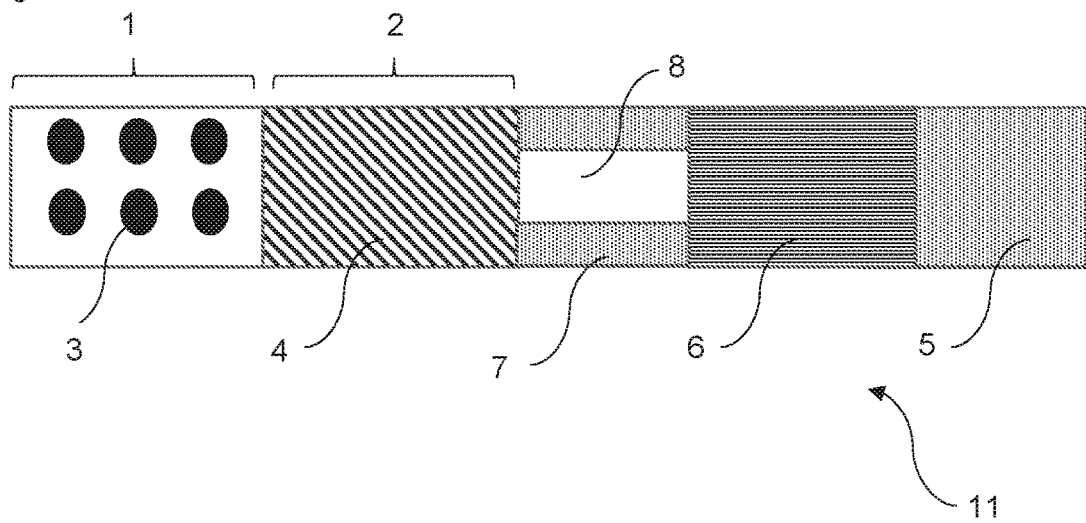
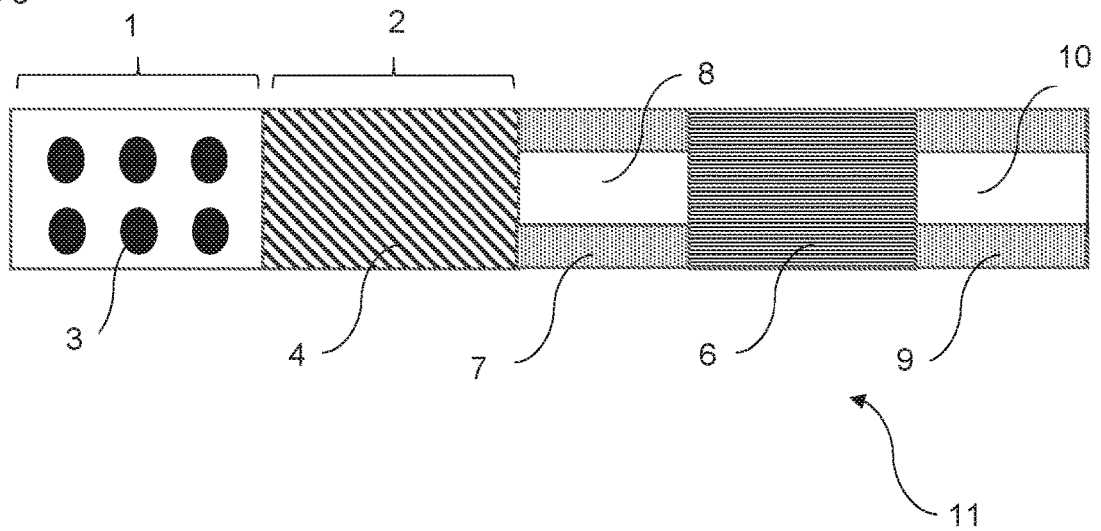


Figure 6



AN AEROSOL GENERATING MATERIAL

TECHNICAL FIELD

[0001] The present disclosure relates to an aerosol generating material comprising lamina tobacco, a method of manufacturing an aerosol generating material, and an article for use in a non-combustible aerosol provision system comprising an aerosol generating material.

[0002] In addition, the present disclosure relates to an article for use with an aerosol provision system comprising a first aerosol generating material in a first form and a second aerosol generating material in a second form, where the first and second aerosol generating materials are made from the same blend.

BACKGROUND

[0003] Aerosol-provision systems generate an inhalable aerosol or vapour during use by releasing compounds from an aerosol-generating-material. These may be referred to as non-combustible smoking articles, aerosol generating assemblies, or aerosol provision devices, for example.

SUMMARY

[0004] According to a first aspect, there is described an aerosol generating material comprising a blend. The blend comprises at least 20% lamina tobacco, by weight of the blend, and the aerosol generating material is in the form of discrete particles.

[0005] According to a second aspect, there is described an article for an aerosol provision system comprising a first aerosol generating material in a first form and a second aerosol generating material in a second form. The first and second aerosol generating materials are prepared from the same blend and the first form and the second form are different.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

[0007] FIG. 1 is a longitudinal cross-sectional view of a rod.

[0008] FIG. 2 is a longitudinal cross-sectional view of a rod having an alternative configuration.

[0009] FIG. 3 is a longitudinal cross-sectional view of a rod have a further alternative configuration.

[0010] FIG. 4 is a longitudinal cross-sectional view of an article for use in an aerosol provision system, comprising a mouth end section.

[0011] FIG. 5 is a longitudinal cross-sectional view of an article for use in an aerosol provision system, comprising a mouth end assembly comprising a spacer section, as cooling section and a mouth end section.

[0012] FIG. 6 is a longitudinal cross-sectional view of an article for use in an aerosol provision system, comprising a mouth end assembly comprising a spacer section, as cooling section and a tubular mouth end section.

DETAILED DESCRIPTION

[0013] As used herein, the term “delivery system” is intended to encompass systems that deliver at least one substance to a user, and includes:

[0014] combustible aerosol provision systems, such as cigarettes, cigarillos, cigars, and tobacco for pipes or for roll-your-own or for make-your-own cigarettes (whether based on tobacco, tobacco derivatives, expanded tobacco, reconstituted tobacco, tobacco substitutes or other smokable material);

[0015] non-combustible aerosol provision systems that release compounds from an aerosol-generating material without combusting the aerosol-generating material, such as electronic cigarettes, tobacco heating products, and hybrid systems to generate aerosol using a combination of aerosol-generating materials; and

[0016] aerosol-free delivery systems that deliver the at least one substance to a user orally, nasally, transdermally or in another way without forming an aerosol, including but not limited to, lozenges, gums, patches, articles comprising inhalable powders, and oral products such as oral tobacco which includes snus or moist snuff, wherein the at least one substance may or may not comprise nicotine.

[0017] According to the present disclosure, a “non-combustible” aerosol provision system is one where a constituent aerosol-generating material of the aerosol provision system (or component thereof) is not combusted or burned in order to facilitate delivery of at least one substance to a user.

[0018] In some embodiments, the delivery system is a non-combustible aerosol provision system, such as a powdered non-combustible aerosol provision system.

[0019] In some embodiments, the non-combustible aerosol provision system is an electronic cigarette, also known as a vaping device or electronic nicotine delivery system (END), although it is noted that the presence of nicotine in the aerosol-generating material is not a requirement.

[0020] In some embodiments, the non-combustible aerosol provision system is an aerosol-generating material heating system, also known as a heat-not-burn system. An example of such a system is a tobacco heating system.

[0021] In some embodiments, the non-combustible aerosol provision system is a hybrid system to generate aerosol using a combination of aerosol-generating materials, one or a plurality of which may be heated. Each of the aerosol-generating materials may be, for example, in the form of a solid, liquid or gel and may or may not contain nicotine. In some embodiments, the hybrid system comprises a liquid or gel aerosol-generating material and a solid aerosol-generating material. The solid aerosol-generating material may comprise, for example, tobacco or a non-tobacco product.

[0022] Typically, the non-combustible aerosol provision system may comprise a non-combustible aerosol provision device and a consumable for use with the non-combustible aerosol provision device.

[0023] In some embodiments, the disclosure relates to consumables comprising aerosol-generating material and configured to be used with non-combustible aerosol provision devices. These consumables are sometimes referred to as articles throughout the disclosure.

[0024] In some embodiments, the non-combustible aerosol provision system, such as a non-combustible aerosol provision device thereof, may comprise a power source and a controller. The power source may be, for example, an electric power source or an exothermic power source. In some embodiments, the exothermic power source comprises a carbon substrate which may be energised so as to distribute

power in the form of heat to an aerosol-generating material or to a heat transfer material in proximity to the exothermic power source.

[0025] In some embodiments, the non-combustible aerosol provision system may comprise an area for receiving the consumable, an aerosol generator, an aerosol generation area, a housing, a mouthpiece, a filter and/or an aerosol-modifying agent.

[0026] In some embodiments, the consumable for use with the non-combustible aerosol provision device may comprise aerosol-generating material, an aerosol-generating material storage area, an aerosol-generating material transfer component, an aerosol generator, an aerosol generation area, a housing, a wrapper, a filter, a mouthpiece, and/or an aerosol-modifying agent.

[0027] In some embodiments, the substance to be delivered comprises an active substance.

[0028] The active substance as used herein may be a physiologically active material, which is a material intended to achieve or enhance a physiological response. The active substance may for example be selected from nutraceuticals, nootropics, psychoactives. The active substance may be naturally occurring or synthetically obtained. The active substance may comprise for example nicotine, caffeine, taurine, theine, vitamins such as B6 or B12 or C, melatonin, cannabinoids, or constituents, derivatives, or combinations thereof. The active substance may comprise one or more constituents, derivatives or extracts of tobacco, *cannabis* or another botanical.

[0029] In some embodiments, the active substance comprises nicotine. In some embodiments, the active substance comprises caffeine, melatonin or vitamin B12.

[0030] As noted herein, the active substance may comprise one or more constituents, derivatives or extracts of *cannabis*, such as one or more cannabinoids or terpenes.

[0031] As noted herein, the active substance may comprise or be derived from one or more botanicals or constituents, derivatives or extracts thereof. As used herein, the term “botanical” includes any material derived from plants including, but not limited to, extracts, leaves, bark, fibres, stems, roots, seeds, flowers, fruits, pollen, husk, shells or the like. Alternatively, the material may comprise an active compound naturally existing in a botanical, obtained synthetically. The material may be in the form of liquid, gas, solid, powder, dust, crushed particles, granules, pellets, shreds, strips, sheets, or the like. Example botanicals are tobacco, *eucalyptus*, star anise, hemp, cocoa, *cannabis*, fennel, lemongrass, peppermint, spearmint, rooibos, chamomile, flax, ginger, *Ginkgo biloba*, hazel, hibiscus, laurel, licorice (liquorice), matcha, mate, orange skin, *papaya*, rose, sage, tea such as green tea or black tea, thyme, clove, cinnamon, coffee, aniseed (anise), basil, bay leaves, cardamom, coriander, cumin, nutmeg, oregano, paprika, rosemary, saffron, lavender, lemon peel, mint, juniper, elderflower, vanilla, wintergreen, beefsteak plant, *curcuma*, turmeric, sandalwood, cilantro, bergamot, orange blossom, myrtle, cassis, valerian, pimento, mace, damien, marjoram, olive, lemon balm, lemon basil, chive, *carvi*, *verbena*, tarragon, geranium, mulberry, *ginseng*, theanine, theacrine, maca, ashwagandha, damiana, guarana, chlorophyll, baobab or any combination thereof. The mint may be chosen from the following mint varieties: *Mentha Arvensis*, *Mentha* c.v., *Mentha niliaca*, *Mentha piperita*, *Mentha piperita citrata* c.v., *Mentha piperita* c.v., *Mentha spicata crispata*, *Mentha*

cardifolia, *Memtha longifolia*, *Mentha suaveolens variegata*, *Mentha pulegium*, *Mentha spicata* c.v. and *Mentha suaveolens*

[0032] In some embodiments, the active substance comprises or is derived from one or more botanicals or constituents, derivatives or extracts thereof and the botanical is tobacco.

[0033] In some embodiments, the active substance comprises or is derived from one or more botanicals or constituents, derivatives or extracts thereof and the botanical is selected from *eucalyptus*, star anise, cocoa and hemp.

[0034] In some embodiments, the active substance comprises or is derived from one or more botanicals or constituents, derivatives or extracts thereof and the botanical is selected from rooibos and fennel.

[0035] In some embodiments, the substance to be delivered comprises a flavour.

[0036] As used herein, the terms “flavour” and “flavourant” refer to materials which, where local regulations permit, may be used to create a desired taste, aroma or other somatosensorial sensation in a product for adult consumers. They may include naturally occurring flavour materials, botanicals, extracts of botanicals, synthetically obtained materials, or combinations thereof (e.g., tobacco, *cannabis*, licorice (liquorice), *hydrangea*, eugenol, Japanese white bark *magnolia* leaf, chamomile, fenugreek, clove, maple, matcha, menthol, Japanese mint, aniseed (anise), cinnamon, turmeric, Indian spices, Asian spices, herb, wintergreen, cherry, berry, red berry, cranberry, peach, apple, orange, mango, clementine, lemon, lime, tropical fruit, *papaya*, rhubarb, grape, durian, dragon fruit, cucumber, blueberry, mulberry, citrus fruits, Drambuie, bourbon, scotch, whiskey, gin, tequila, rum, spearmint, peppermint, lavender, aloe vera, cardamom, celery, cascarilla, nutmeg, sandalwood, bergamot, geranium, khat, naswar, *betel*, shisha, pine, honey essence, rose oil, vanilla, lemon oil, orange oil, orange blossom, cherry blossom, *cassia*, caraway, cognac, jasmine, ylang-ylang, sage, fennel, wasabi, piment, ginger, coriander, coffee, hemp, a mint oil from any species of the genus *Mentha*, *eucalyptus*, star anise, cocoa, lemongrass, rooibos, flax, *Ginkgo biloba*, hazel, hibiscus, laurel, mate, orange skin, rose, tea such as green tea or black tea, thyme, juniper, elderflower, basil, bay leaves, cumin, oregano, paprika, rosemary, saffron, lemon peel, mint, beefsteak plant, *curcuma*, cilantro, myrtle, cassis, valerian, pimento, mace, damien, marjoram, olive, lemon balm, lemon basil, chive, *carvi*, *verbena*, tarragon, limonene, thymol, camphene), flavour enhancers, bitterness receptor site blockers, sensorial receptor site activators or stimulators, sugars and/or sugar substitutes (e.g., sucralose, acesulfame potassium, aspartame, saccharine, cyclamates, lactose, sucrose, glucose, fructose, sorbitol, or mannitol), and other additives such as charcoal, chlorophyll, minerals, botanicals, or breath freshening agents. They may be imitation, synthetic or natural ingredients or blends thereof. They may be in any suitable form, for example, liquid such as an oil, solid such as a powder, or gas.

[0037] In some embodiments, the flavour comprises menthol, spearmint and/or peppermint. In some embodiments, the flavour comprises flavour components of cucumber, blueberry, citrus fruits and/or redberry. In some embodiments, the flavour comprises eugenol. In some embodiments, the flavour comprises flavour components extracted

from tobacco. In some embodiments, the flavour comprises flavour components extracted from *cannabis*.

[0038] In some embodiments, the flavour may comprise a sensate, which is intended to achieve a somatosensorial sensation which are usually chemically induced and perceived by the stimulation of the fifth cranial nerve (trigeminal nerve), in addition to or in place of aroma or taste nerves, and these may include agents providing heating, cooling, tingling, numbing effect. A suitable heat effect agent may be, but is not limited to, vanillyl ethyl ether and a suitable cooling agent may be, but not limited to eucalyptol, WS-3.

[0039] The aerosol-generating material may comprise or be an "amorphous solid". In some embodiments, the aerosol-generating material comprises an aerosol-generating film that is an amorphous solid. The amorphous solid may be a "monolithic solid". The amorphous solid may be substantially non-fibrous. In some embodiments, the amorphous solid may be a dried gel. The amorphous solid is a solid material that may retain some fluid, such as liquid, within it. In some embodiments, the amorphous solid may, for example, comprise from about 50 wt %, 60 wt % or 70 wt % of amorphous solid, to about 90 wt %, 95 wt % or 100 wt % of amorphous solid. An aerosol-generating material may also be referred to as an aerosolisable material.

[0040] The aerosol-generating material may comprise one or more active substances and/or flavours, one or more aerosol-former materials, and optionally one or more other functional material.

[0041] The aerosolisable material may be present on a substrate. The substrate may, for example, be or comprise paper, card, paperboard, cardboard, reconstituted aerosolisable material, a plastics material, a ceramic material, a composite material, glass, a metal, or a metal alloy.

[0042] The aerosol-former material may comprise one or more constituents capable of forming an aerosol. In some embodiments, the aerosol-former material may comprise one or more of glycerine, glycerol, propylene glycol, diethylene glycol, triethylene glycol, tetraethylene glycol, 1,3-butylene glycol, erythritol, meso-Erythritol, ethyl vanillate, ethyl laurate, a diethyl suberate, triethyl citrate, triacetin, a diacetin mixture, benzyl benzoate, benzyl phenyl acetate, tributyrin, lauryl acetate, lauric acid, myristic acid, and propylene carbonate.

[0043] The one or more other functional materials may comprise one or more of pH regulators, colouring agents, preservatives, binders, fillers, stabilizers, and/or antioxidants.

[0044] A consumable is an article comprising or consisting of aerosol-generating material, part or all of which is intended to be consumed during use by a user. A consumable may comprise one or more other components, such as an aerosol-generating material storage area, an aerosol-generating material transfer component, an aerosol generation area, a housing, a wrapper, a mouthpiece, a filter and/or an aerosol-modifying agent. A consumable may also comprise an aerosol generator, such as a heater, that emits heat to cause the aerosol-generating material to generate aerosol in use. The heater may, for example, comprise combustible material, a material heatable by electrical conduction, or a susceptor.

[0045] A susceptor is a material that is heatable by penetration with a varying magnetic field, such as an alternating magnetic field. The susceptor may be an electrically-conductive material, so that penetration thereof with a varying

magnetic field causes induction heating of the heating material. The heating material may be magnetic material, so that penetration thereof with a varying magnetic field causes magnetic hysteresis heating of the heating material. The susceptor may be both electrically-conductive and magnetic, so that the susceptor is heatable by both heating mechanisms. The device that is configured to generate the varying magnetic field is referred to as a magnetic field generator, herein.

[0046] An aerosol-modifying agent is a substance, typically located downstream of the aerosol generation area, that is configured to modify the aerosol generated, for example by changing the taste, flavour, acidity or another characteristic of the aerosol. The aerosol-modifying agent may be provided in an aerosol-modifying agent release component, that is operable to selectively release the aerosol-modifying agent

[0047] The aerosol-modifying agent may, for example, be an additive or a sorbent. The aerosol-modifying agent may, for example, comprise one or more of a flavourant, a colourant, water, and a carbon adsorbent. The aerosol-modifying agent may, for example, be a solid, a liquid, or a gel. The aerosol-modifying agent may be in powder, thread or granule form. The aerosol-modifying agent may be free from filtration material.

[0048] An aerosol generator is an apparatus configured to cause aerosol to be generated from the aerosol-generating material. In some embodiments, the aerosol generator is a heater configured to subject the aerosol-generating material to heat energy, so as to release one or more volatiles from the aerosol-generating material to form an aerosol. In some embodiments, the aerosol generator is configured to cause an aerosol to be generated from the aerosol-generating material without heating. For example, the aerosol generator may be configured to subject the aerosol-generating material to one or more of vibration, increased pressure, or electrostatic energy.

[0049] The aerosol generating material described herein comprises a blend. A blend can be described as a mix of two or more substances. For example, a blend may comprise two or more different types of tobacco, such as Virginia and Oriental. The blend described herein may comprise two or more different forms of tobacco, for example, the blend may comprise cut leaf tobacco and reconstituted tobacco. A blend is typically mixed such that it is homogeneous.

[0050] The aerosol generating material may comprise additional components which are not part of the blend.

[0051] In some embodiments, the aerosol generating material consists essentially of, or consists of, the blend.

[0052] The lamina tobacco described herein may also be referred to as leaf tobacco. The tobacco which may be used in the aerosol generating materials described herein may be any suitable tobacco, such as single grades or blends, cut rag or whole leaf, including Virginia (flue-cured and/or air cured) and/or Burley and/or Oriental. The aerosol generating material may comprise a mixture of any of these leaf tobacco materials.

[0053] The lamina tobacco is present in an amount of at least 20% by weight of the blend. For example, the lamina may be present in an amount of between about 20% and about 90%, about 25% and about 85%, about 30% and about 70%, about 32% and about 65%, about 34% and about 60%, about 36% and about 55%, about 38% and about 50%, about 38% and about 45%, about 38% and about 42% by weight

of the blend. In some embodiments, the lamina is present in an amount of about 40%, by weight of the blend.

[0054] In some embodiments, the lamina is present in an amount of at least 21%, 22%, 23%, 24%, 25%, 26%, 27%, 28%, 29%, 30%, 31%, 32%, 33%, 34%, 35%, 36%, 37%, 38%, 39%, 40% based on the weight of the blend.

[0055] In some embodiments, the lamina is present in an amount of no more than 40%, 39%, 38%, 37%, 36%, 35%, 34%, 33%, 32%, 31%, or 30% based on the weight of the blend.

[0056] In the material described herein, where amounts are given in % by weight, for the avoidance of doubt this refers to a full weight basis, unless specifically indicated to the contrary.

[0057] Where specified, amounts may be given in % by weight based on dry weight. When based on dry weight, any water that may be present in the material/composition, or in any component thereof, is entirely disregarded for the purposes of the determination of the weight %. The water content of the material/compositions described herein may vary and may be, for example, from 5 to 15% by weight. The water content of the material/compositions described herein may vary according to, for example, the temperature, pressure and humidity conditions at which the material/compositions are maintained. The water content can be determined by Karl-Fisher analysis, as described herein.

[0058] According to one aspect, there is provided an aerosol generating material comprising a blend, the blend comprising at least 20% lamina tobacco, by weight of the blend. The aerosol generating material is in the form of discrete particles.

[0059] The inventors have found that the form in which an aerosol generating material is provided may result in varied, or controllable, aerosol generation, when heated. In particular, the inventors have identified that when an aerosol generating material comprises a blend comprising at least 20% lamina tobacco, by weight of the blend, in discrete particles, release of an aerosol-former, for example glycerol and nicotine, may be delayed until later in the session.

[0060] Without wishing to be bound by theory, it is thought that the discrete particles are denser than typical aerosol generating materials, such as 100% reconstituted tobacco, which results in a lower/slower rate of release of aerosol-formers, such as nicotine and glycerol.

[0061] A further advantage may be observed when the discrete particles are used in a consumable which is much shorter than conventional consumables, such as demi-slim. A shorter consumable inevitably contains less substrate, due to its smaller size, which can have a negative impact on sensorial and/or organoleptic properties. The provision of discrete particles, which release nicotine and aerosol former more slowly, may therefore provide a more pleasant experience to the consumer.

[0062] The aerosol generating material may comprise tobacco material in an amount between about 65% and about 85% water in an amount between about 1% and about 10%; and an aerosol-former material in an amount between about 10% and about 30%, by weight of the aerosol generating material. Preferably, the aerosol generating material comprises tobacco material in an amount of about 75%; water in an amount of about 4%; and an aerosol former in an amount of about 20%, by weight of the aerosol generating material.

[0063] In some embodiments, the blend comprises reconstituted tobacco. The reconstituted tobacco can be paper

reconstituted tobacco. Paper reconstituted tobacco refers to tobacco material formed by a process in which tobacco feedstock is extracted with a solvent to afford an extract of solubles and a residue comprising fibrous material, and then the extract (usually after concentration, and optionally after further processing) is recombined with fibrous material from the residue (usually after refining of the fibrous material, and optionally with the addition of a portion of non-tobacco fibres) by deposition of the extract onto the fibrous material. The process of recombination resembles the process for making paper.

[0064] The reconstituted tobacco may be any type of reconstituted tobacco that is known in the art. In a particular embodiment, the reconstituted tobacco may be made from a feedstock comprising one or more of tobacco strips, tobacco stems, and whole leaf tobacco. In a further embodiment, the paper reconstituted tobacco is made from a feedstock consisting of tobacco strips and/or whole leaf tobacco, and tobacco stems.

[0065] However, in other embodiments, scraps, fines and winnings can alternatively or additionally be employed in the feedstock.

[0066] The reconstituted tobacco for use in the blend described herein may be prepared by methods which are known to those skilled in the art for preparing reconstituted tobacco.

[0067] In some embodiments, the reconstituted tobacco is included in the blend in an amount of between about 10% and about 90% by weight of the blend. For example, the reconstituted tobacco may be present in an amount of between about 20% and about 80%, about 30% and about 75%, about 40% and about 70%, about 50% and about 70%, about 55% and about 65%, about 58% and about 64%, or about 58% and about 62%. In some embodiments, the reconstituted tobacco is included in an amount of about 60%, by weight of the blend.

[0068] In some embodiments, the reconstituted tobacco is included in an amount of 80%, 79%, 78%, 77%, 76%, 75%, 74%, 73%, 72%, 71%, 70%, 69%, 68%, 67%, 66%, 65%, 64%, 63%, 62%, 61% or 60%, based on the weight of the blend.

[0069] In some embodiments, the reconstituted tobacco is included in an amount of up to 80%, up to 79%, up to 78%, up to 77%, up to 76%, up to 75%, up to 74%, up to 73%, up to 72%, up to 71%, up to 70%, up to 69%, up to 68%, up to 67%, up to 66%, up to 65%, up to 64%, up to 63%, up to 62%, up to 61% or up to 60%, based on the weight of the blend.

[0070] In some embodiments, the blend comprises about 20% lamina tobacco and about 80% reconstituted tobacco, by weight of the blend. For example, the blend comprises about 30% lamina tobacco and about 70% reconstituted tobacco, about 35% lamina tobacco and about 65% reconstituted tobacco, or about 40% lamina tobacco and about 60% reconstituted tobacco, by weight of the blend.

[0071] In some embodiments, the blend consists of lamina tobacco and reconstituted tobacco.

[0072] In some embodiments, the blend comprises lamina tobacco, reconstituted tobacco, and a flavourant. In some embodiments, the blend comprises up to 1% flavourant, based on the weight of the blend.

[0073] The reconstituted tobacco material may have a density of less than about 700 milligrams per cubic centimetre (mg/cc). For example, the reconstituted tobacco mate-

rial has a density of less than about 600 mg/cc. Alternatively or in addition, the reconstituted tobacco material has a density of at least 350 mg/cc.

[0074] The tobacco composition comprises an aerosol forming material. In this context, an “aerosol forming material” is an agent that promotes the generation of an aerosol. An aerosol forming material may promote the generation of an aerosol by promoting an initial vaporisation and/or the condensation of a gas to an inhalable solid and/or liquid aerosol. In some embodiments, an aerosol forming material may improve the delivery of flavour from the aerosol generating material.

[0075] In general, any suitable aerosol forming material or agents may be included in the aerosol generating material of the invention. Suitable aerosol forming materials include, but are not limited to: a polyol such as sorbitol, glycerol, and glycols like propylene glycol or triethylene glycol; a non-polyol such as monohydric alcohols, high boiling point hydrocarbons, acids such as lactic acid, glycerol derivatives, esters such as diacetin, triacetin, triethylene glycol diacetate, triethyl citrate or myristates including ethyl myristate and isopropyl myristate and aliphatic carboxylic acid esters such as methyl stearate, dimethyl dodecanedioate and dimethyl tetradecanedioate.

[0076] In a preferred embodiment, the aerosol forming material is selected from the group consisting of: glycerol, sorbitol, propylene glycol, triethylene glycol, lactic acid, diacetin, triacetin, triethylene glycol diacetate, triethyl citrate, ethyl myristate, isopropyl myristate, methyl stearate, dimethyl dodecanedioate, dimethyl tetradecanedioate, and mixtures thereof.

[0077] The aerosol forming material has been found to improve the sensory performance of a an article for use with an aerosol generation device comprising the tobacco composition, by helping to transfer compounds such as flavour compounds from the tobacco material to the consumer.

[0078] In some embodiments, the aerosol forming material may be glycerol, propylene glycol, or a mixture of glycerol and propylene glycol. Preferably, the aerosol forming material comprises glycerol. Glycerol may be present in an amount of from 10 to 20% by weight of the tobacco material, for example 13 to 16% by weight of the composition, or about 14% or 15% by weight of the material. Propylene glycol, if present, may be present in an amount of from 0.1 to 0.3% by weight of the material.

[0079] According to a first aspect, the aerosol generating material is in the form of discrete particles. The discrete particles can be shaped, moulded, compressed, extruded or otherwise fashioned into a desired shape. In some embodiments, the discrete particles are in the form of beads or pellets. The discrete particles, such as beads or pellets, may have smooth, regular outer shapes (e.g. spheres, cylinders, ovoids, etc.) and/or they may have irregular outer shapes.

[0080] In some embodiments, the discrete particles are in the form of substantially spherical beads, the diameter of each bead in the range of about 0.5 mm to about 3 mm, for example from about 1 mm to about 3 mm, from about 1.5 mm to about 2.5 mm, as measured by sieving. In some embodiments, a mean average diameter of each bead is about 0.5 mm, about 1 mm, about 1.5 mm, about 2 mm, about 2.5 mm, about 3 mm, as measured by sieving.

[0081] The particles may have a size selected to produce a more dense aerosol generating material, which will have

an impact on the heat transfer within the material and the release of the volatile components.

[0082] In some embodiments the beads are formed by extrusion. Extrusion involves feeding a composition (also referred to herein as a blend) through a die to produce an extruded product. The process applies pressure to the blend/composition combined with shear forces.

[0083] Extrusion may be performed using one of the main classes of extruders: screw, sieve and basket, roll, ram and pin barrel extruders. A single screw or twin screw extruder may be used. Forming the tobacco beads by extrusion has the advantage that this processing combines compression, mixing, conditioning, homogenizing and moulding of the composition.

[0084] In some embodiments, during extrusion the free-flowing composition comprising particles, such as particles of lamina and/or reconstituted tobacco, is exposed to elevated pressure and temperature and is forced through an orifice, such as a shaping nozzle or die, to form an extrudate. In some embodiments, the extrudate has a rod-like form and it may be broken into segments of a desired length.

[0085] In some embodiments, the blend/composition is exposed to temperatures from about 40° C. to about 150° C., or from about 80° C. to about 130° C., or from about 60° C. to about 95° C. within the extruder. In some embodiments, including those using double extrusion, the precursor blend/composition is exposed to temperatures from about 70° C. to about 95° C. within the extruder. In some embodiments, including those using single extrusion, the precursor composition is exposed to temperatures from about 60° C. to about 80° C. within the extruder.

[0086] In some embodiments, the extrusion may be a generally dry process, with the blend/composition including aerosol generating particles that are dry or substantially dry. The blend/composition may optionally include other particulate materials including, for example, base, diluent, solid aerosol forming agents, solid flavour modifiers, etc.

[0087] In some embodiments, liquids may be added to the composition prior to or during the extrusion process. For example, water may be added, for example as a processing aid to assist dissolution or solubilisation of components of the composition, or to aid binding or agglomeration. Alternatively or additionally, a wetting agent may be added to the blend/composition.

[0088] In some embodiments, the liquid may be an aerosol former material such as glycerol or others discussed herein. When liquid is added to the composition in this manner, the liquid is applied not only on the surface, but, as a result of the extruder pressure combined with the intensive mixing by high shear forces, the extrudate becomes impregnated with the liquid. Where the liquid is an aerosol former material, this can result in a high availability of the aerosol former material in the resultant beads to enhance evaporation of volatile components.

[0089] For example, in some embodiments, the extruded aerosol-generating material undergoes spheronisation. In spheronisation, the extruded, cylindrically shaped particles are broken into uniform lengths and are gradually transformed into spherical shapes due to plastic deformation. Where the extrudate is first broken into uniform lengths, spheres with a uniform diameter will be produced by the spheronisation step.

[0090] According to one specific example of the embodiments discussed herein, samples of aerosol generating material were produced as follows.

TABLE 1

	Formulation 1 (with binders)	Formulation 2 (without binders)	Formulation 3 (without binders)
Tobacco	29%	75%	75%
Calcium Carbonate	29%	—	—
Water	26%	4%	9%
Glycerol	14%	20%	15%
CMC	1%	—	—
Flavour	—	1%	1%

[0091] The tobacco was ground to produce a fine powder, taking care not to overheat the tobacco. The ground tobacco particles were sieved to select those with a desired size, for example a particle size of less than 250 μm , of less than 100 μm or less than 60 μm .

[0092] Next, all of the dry (non-liquid) components of the formulation were combined and mixed or blended in a mixer. In this particular instance, the mixture was mixed for 1 minute at a speed to 75 RPM. This was to ensure that the dry components are homogeneously distributed within the mixture.

[0093] Next, half of the glycerol and half of the water were added to the dry mixture and mixed. Specifically, the mixture was mixed for a further minute at 75 RPM. The remaining glycerol and water was then added and mixed, again for 1 minute at 75 RPM. Then, to ensure that a homogenous mixture was achieved, mixing was continued until the mixture had a crumbly consistency that could be squeezed into a mass. In this specific instance, the additional mixing lasted 3 minutes.

[0094] The mixture was then extruded using a Caleva MultiLab. Various different speeds and times were used to produce different extrudates, for example speeds between 1,500 and 2,500 and times from 1 to 5 minutes.

[0095] The extrudate, which naturally breaks into random lengths upon exiting the extruder, was subsequently spheronised. Spheronisation was carried out until spherical beads were formed. In this instance, the extrudate was initially spheronised, using a Caleva Multi Lab, at 2,500 RPM for 1 minute and then the beads were checked for any defects. Then, spheronisation continued for a further 1-2 minutes. The spheronisation step broke the extruded material into individual pieces and formed the beads.

[0096] In a final step, the spheronised beads were dried in an oven at 65° C. for 30 minute periods. After each drying period, the beads were weighed and drying was halted when the desired moisture weight loss was achieved. Generally, such drying will take about 1 hour.

[0097] According to an embodiment, there is provided an article comprising an aerosol generating material as described herein for use in an aerosol provision device, such as a non-combustible aerosol provision device, arranged to heat the material and generate an aerosol.

[0098] In some embodiments, the aerosol provision device is arranged to receive at least a portion of the article for use with an aerosol provision device comprising the aerosol generating material and to heat the portion of the article for use with an aerosol provision device comprising the material and generate an aerosol from the material.

[0099] According to a second aspect, there is provided an article for an aerosol provision system comprising a first aerosol generating material in a first form and a second aerosol generating material in a second form, wherein the first and second aerosol generating materials are prepared from the same blend and the first and the second form are different.

[0100] Without wishing to be bound by theory, it is thought that provision of an article which has two regions comprising material in different forms, produced from the same blend, may provide a more consistent taste profile when consumed.

[0101] Reference is made to FIG. 1, which is a longitudinal cross-sectional view of an aerosol-generating rod. The rod includes a first aerosol generating material in a first form 3, such as beads, and a second aerosol generating material in a second form 4. In this embodiment, the first and second aerosol generating materials are mixed homogeneously.

[0102] An alternative configuration is illustrated in FIGS. 2 and 3, where the rod includes a first region 1 comprising the first aerosol generating material in a first form 3, and a second region 2, comprising the second aerosol generating material in a second form 4.

[0103] In some embodiments, the first aerosol generating material is located in a first region and the second aerosol generating material is located in a second region. For example, the first aerosol generating material could be located at a position that is closer to a mouthpiece of a device compared to the second aerosol generating material. Alternatively, the first aerosol generating material may be located at a position that is further from a mouthpiece than the second aerosol generating material. The first and second aerosol generating materials may be located adjacent to one another or they may be located separate from one another.

[0104] FIG. 4 illustrates a longitudinal cross-sectional view of an article for use in an aerosol provision system, comprising two regions 1, 2 of a first aerosol generating material 3 and a second aerosol generating material 4, and an additional mouth end section 5.

[0105] The mouth end section 5 may, for example, be a plug of filter material such as tow or sheet material, optionally comprising cellulose acetate, paper, or other known materials.

[0106] FIG. 5 is a longitudinal cross-sectional view of an article 11 for use in an aerosol provision system, comprising two regions 1,2 of aerosol-generating material 3,4 and a mouth end assembly. The mouth end assembly comprises a series of adjacent sections, namely a spacer section 6, cooling section 7 and a mouth end section 5. The sections of the article may be present in any order, and not just the order shown. The spacer section is tubular, with a wall 7 and a central lumen 8. The wall 7 of the tubular spacer may comprise a material such as cellulose acetate, polylactide or paper. The cooling section 6 may be any section with a shape and/or material that assists the cooling of the vapour or aerosol generated with the aerosol-generating material 3,4 is heated. The mouth end section 5 may once again be a plug of a filter material such as tow or sheet material, optionally comprising cellulose acetate, paper, or other known materials.

[0107] FIG. 6 shows an article 11 similar to that of FIG. 5, but with a tubular mouth end section with a wall 9 and a central lumen 10.

[0108] In some embodiments, either the first aerosol generating material or the second aerosol generating material is in the form of discrete particles, as described herein.

[0109] In some embodiments, the first aerosol generating material is in the form of discrete particles, as described herein, and the second aerosol generating material is in the form of shredded tobacco. The discrete particles have a relatively high density, which means that they may take longer to heat up compared with shredded material. By the time that shredded material is exhausted, e.g. exhausted all of its flavour/nicotine/aerosol former, the beads are at their optimal temperature for continuing the release of these components. The composition characteristics of the beads can be similar to the shredded material, e.g. recon and lamina, so there is less discernible drop in flavour and/or nicotine delivery.

[0110] In some embodiments, the first aerosol generating material has a density that is at least about 25% higher than the density of the second aerosol generating material and, optionally, at least about 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70% or 75% higher than the density of the second aerosol-generating material. The first aerosol generating material may have a density that is no more than about 200% higher than the density of the second aerosol generating material and, optionally, no more than about 150%, 125%, 100% or 75% higher than the density of the second aerosol-generating material. In some embodiments, the first aerosol generating material has a density that is from about 25% to about 75% higher than the density of the second aerosol generating material.

[0111] In some embodiments, the first aerosol generating material has a density of from at least about 0.4 g/cm³ and optionally from at least about 0.5, 0.6, 0.7, 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9 or 2 g/cm³. The first aerosol generating material may have a density of no more than about 2 g/cm³ and, optionally no more than about 1.9, 1.8, 1.7, 1.6, 1.5, 1.4, 1.3, 1.2, 1.1, 1, 0.9, 0.8, 0.7, 0.6 or 0.5 g/cm³. In some embodiments, the density of the first aerosol-generating material is from about 0.4 to 1.99 g/cm³.

[0112] In some embodiments, the second aerosol generating material has a density of from at least about 0.1 g/cm³ and optionally from at least about 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8 or 0.9 g/cm³. The second aerosol generating material may have a density of no more than about 1 g/cm³ and, optionally no more than about 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.3 or 0.2 g/cm³. In some embodiments, the density of the second aerosol-generating material is from about 0.1 to 0.9 g/cm³.

[0113] In some embodiments, the discrete particles and the shredded tobacco may be mixed homogeneously. Without wishing to be bound by theory, when discrete particles and shredded tobacco are mixed homogeneously, a consumer may experience a more consistent delivery of taste across the length of a session, when used in a device.

[0114] In some embodiments, the blend used in this second aspect is as described herein. In particular, the blend may comprise lamina tobacco and reconstituted tobacco as described in relation to the first aspect.

[0115] In some embodiments, the blend used in this second aspect is 100% lamina tobacco.

[0116] In some embodiments, the blend used in this second aspect comprises at least 20% lamina tobacco. For example, the blend may comprise 21%, 22%, 23%, 24%,

25%, 26%, 27%, 28%, 29%, 30%, 31%, 32%, 33%, 34%, 35%, 36%, 37%, 38%, 39% or 40% lamina tobacco, based on the weight of the blend.

[0117] In some embodiments, the blend according to the second aspect comprises up to 80% reconstituted tobacco. For example, the blend may comprise 79%, 78%, 77%, 76%, 75%, 74%, 73%, 72%, 71%, 70%, 69%, 68%, 67%, 66%, 65%, 64%, 63%, 62%, 61% or 60% reconstituted tobacco, based on the weight of the blend.

[0118] In some embodiments, the blend according to the second aspect comprises about 20% lamina tobacco and about 80% reconstituted tobacco, by weight of the blend. For example, the blend comprises about 30% lamina tobacco and about 70% reconstituted tobacco, about 35% lamina tobacco and about 65% reconstituted tobacco, or about 40% lamina tobacco and about 60% reconstituted tobacco, by weight of the blend.

[0119] The tobacco, such as the lamina and reconstituted tobacco described herein contains nicotine. In some embodiments, the nicotine content is from 0.5 to 2% by weight of the tobacco, and may be, for example, from 0.5 to 1.75%, from 0.8 to 1.2% or from 0.8 to 1.75% by weight of the tobacco.

[0120] In some embodiments, the article according to the second aspect can be considered a consumable, and may have a rod shape, such as a cylinder. In some embodiments, the article is cylindrical. In some embodiments, first region and the second region are arranged coaxially along the rod.

[0121] In other embodiments, the first and second regions may have different dimensions. In some embodiments, the cylindrical regions may have a cross-sectional diameter of at least about 5 mm, about 5.5 mm, about 6 mm, about 6.5 mm, about 7 mm or at least about 7 mm to no more than about 9 mm, about 8.5 mm, or no more than about 8 mm.

[0122] In some embodiments the article comprises two sections, each having a length of at least about 15 mm, about 16 mm, about 17 mm or about 18 mm, and no greater than about 27 mm, about 26 mm, about 25 mm or about 24 mm. In some embodiments, the first and second regions each have a length of from about 17 to about 24 mm.

[0123] In some cases, the rod may comprise two sections, each having a length of about 15-20 mm, suitably about 18 mm. In some cases, the rod may comprise two sections, each having a length of about 22-27 mm, suitably about 24 mm.

[0124] In some embodiments, the lamina tobacco and the reconstituted tobacco have the same nicotine content.

[0125] In some embodiments, the aerosol-generating materials comprise one or more volatile components.

[0126] The aerosol-generating materials are heated, irradiated or energized to generate an aerosol. The aerosol will include different components released from the different constituents of the aerosol-generating material. For example, the aerosol former material will form an aerosol upon heating. Additionally, the aerosol will also include volatile components such as active substances and flavours that are released upon heating. Where the aerosol-generating material comprises tobacco material, upon heating, volatile tobacco components including nicotine and flavours and aromas will be released and will be included in the aerosol formed from the aerosol former material.

[0127] Release of volatile components is generally temperature-dependent and so will occur when the aerosol-generating material and the components within it reach a certain threshold temperature. Heat will generally spread or

transfer through the material so that different parts or regions of the aerosol-generating material may be at different temperatures at a particular time. The spread or transfer of the heat through the aerosol-generating material will depend upon various factors, including the density of the material.

[0128] The consumables or articles are for use in an aerosol provision assembly that comprises an aerosol provision device and an article.

[0129] In some embodiments, the aerosol provision device may comprise a power source and a controller. The power source may, for example, be an electric power source or an exothermic power source. In some embodiments, the exothermic power source comprises a carbon substrate which may be energised so as to distribute power in the form of heat to an aerosol-generating material or to a heat transfer material in proximity to the exothermic power source.

[0130] In some embodiments, the aerosol provision system may comprise an area for receiving the article, an aerosol generator, an aerosol generation area, a housing, a mouthpiece, a filter and/or an aerosol-modifying agent.

[0131] In some embodiments, the assembly may be configured such that at least a portion of the aerosol-generating material is exposed to a temperature of at least 180° C. or 200° C. for at least 50% of the heating period. In some examples, the aerosol-generating material may be exposed to a heat profile as described in WO 2018/019855, the content of which is incorporated herein in its entirety.

[0132] The assembly device comprises a heating system configured to heat the first region comprising the first aerosol-generating material to a first peak temperature and to heat the second region comprising the second aerosol-generating material to a second peak temperature, wherein the second region reaches the second peak temperature after the first region reaches the first peak temperature.

[0133] In some embodiments, the heating of the second region to the second peak temperature occurs later than the heating of the first region to the first peak temperature.

[0134] In some embodiments, the heating system may be configured such that on initiation of use, the first region of the article comprising the first aerosol-generating material is immediately heated to the first peak temperature and this region of the article is maintained at the first peak temperature for a first time period.

[0135] In some embodiments, the heating system may be configured such that on initiation of use, the second region of the article comprising the second aerosol-generating material is immediately heated to the second peak temperature and this region of the article is maintained at the second peak temperature for a second time period.

[0136] In other embodiments, the heating of the second region commences later than the heating of the first region. For example, the heating of the second region may commence only once the heating of the first region has finished. In some embodiments, there is no overlap between the heating of the first and second regions.

[0137] In some embodiments, the first peak temperature is at least about 150, 160, 170, 180, 190, 200, 210, 220, 230, 240 or about 250° C. In some embodiments, the first peak temperature is no more than about 350, 340, 330, 320, 310, 300, 290, 280, 270, 260 or about 250° C.

[0138] In some embodiments, the second peak temperature is at least about 150, 160, 170, 180, 190, 200, 210, 220, 230, 240 or about 250° C. In some embodiments, the second

peak temperature is no more than about 350, 340, 330, 320, 310, 300, 290, 280, 270, 260 or about 250° C.

[0139] In some embodiments, the second peak temperature is higher than the first peak temperature. In some embodiments, the second peak temperature is from about 10 to about 100° C. higher than the first peak temperature, or from about 10 to 50° C., from about 10 to 40° C., from about 10 to 30° C. or from about 10 to 20° C. higher than the first peak temperature.

[0140] The peak temperature of a region may be defined as the highest temperature that the region is heated to. In some embodiments, the temperature of the region is measured as the temperature of the aerosol-generating material in the region. This may be measured at a particular position within the region (preferably not directly adjacent to the heater), or it may be calculated as the average temperature of the material throughout the region. In alternative embodiments, the temperature of the region is considered to be the temperature of the heater used to heat the region.

[0141] In some embodiments, the heating system comprises one or more separate heaters configured to heat the first region of the article, and one or more heaters configured to heat the second region of the article. These heaters are controlled by a controller of the heating system.

[0142] In some embodiments, the first region is heated to and maintained at the first peak temperature for a period of from about 10 seconds to about 300 seconds. In some embodiments, the first region is heated for a period of at least about 10 seconds, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, or 290 seconds. In some embodiments, the first region is heated for a period of no more than about 300 seconds, 290, 280, 270, 260, 250, 240, 230, 220, 210, 200, 190, 180, 170, 160, 150, 140, 130, 120, 110, 100, 90, 80, 70, 60, 50, 40, or 30 seconds. In some embodiments, the first region is maintained at the first peak temperatures for a period of from about 30 to about 120 seconds.

[0143] In some embodiments, the second region is heated to and maintained at the second peak temperature for a period of from about 10 seconds to about 300 seconds. In some embodiments, the second region is heated for a period of at least about 10 seconds, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, or 290 seconds. In some embodiments, the second region is heated for a period of no more than about 300 seconds, **290, 280, 270, 260, 10** 250, 240, 230, 220, 210, 200, 190, 180, 170, 160, 150, 140, 130, 120, 110, 100, 90, 80, 70, 60, 50, 40, or 30 seconds. In some embodiments, the second region is maintained at the second peak temperatures for a period of from about 45 to about 240 seconds.

[0144] In some embodiments, the heating of the two or more regions of the article is coordinated so that it provides a relatively constant release of volatile compounds into an inhalable medium over the period of use of the aerosol provision system. In some embodiments, the period of use may be up to about 300 seconds or up to about 250 seconds. In some embodiments, the period of release of volatiles may be up to about 300 seconds or up to about 250 seconds.

[0145] The heaters are configured to heat the regions to their respective peak temperatures. They may also be configured to maintain the regions at the peak temperature. Alternatively or in addition, the heaters may also be configured to maintain the regions at a lower temperature before

and/or after the peak temperature has been reached. In some known assemblies, more than one heater is used and these heaters are arranged to heat different parts of the aerosol generating material, with the intention that parts of the aerosol generating material are not heated initially, thereby saving the volatiles in those parts for consumption later in the product use lifetime. However, bleeding of heat between different heating zones in such assemblies causes depletion of volatiles in zones where direct heating has not yet been initiated. This increases the delivery of such volatiles early in the consumption period, and reduces the levels of such volatiles available for consumption later. Thus, the delivery of such volatile components generally reduces puff-by-puff. However, the effect of such bleeding of heat can be reduced by including a second aerosol-generating material that has a great density than the first aerosol-generating material. The denser material is slower to heat and the heat spread less through it.

[0146] In some specific embodiments, the aerosol-generating material in an article or consumable has a weight of 260 mg, comprising a combination of 130 mg of a first aerosol-generating material, for example comprising a blend of lamina and reconstituted tobacco, and 130 mg of a second aerosol-generating material, for example comprising higher density tobacco beads.

[0147] In some particular embodiments, the aerosol-generating material has a rod shape and is formed from two cylindrical sections arranged coaxially along the rod of aerosol-generating material. In some examples, the cylindrical sections each comprise from about 20 to about 330 mg, or from about 50 to about 300 mg or from about 40 to about 125 mg of tobacco and have a length of from about 15 to about 20 mm, or about 18 mm. In some other examples, the cylindrical sections each comprise from about 100 to about 250 mg, or from about 115 to about 235 mg of tobacco and have a length of from about 22 to about 27 mm, or about 24 mm.

[0148] In some embodiments, the aerosol generating article may comprise the aerosol generating material and additionally a cooling element and/or a filter. The cooling element, if present, may act or function to cool gaseous or aerosol components. In some cases, it may act to cool gaseous components such that they condense to form an aerosol. It may also act to space the very hot parts of the apparatus from the user. The filter, if present, may comprise any suitable filter known in the art such as a cellulose acetate plug.

[0149] The aerosol generating article may be circumscribed by a wrapping material such as paper. The aerosol generating article may additionally comprise ventilation apertures. These may be provided in the sidewall of the article. In some cases, the ventilation apertures may be provided in the filter and/or cooling element. These apertures may allow cool air to be drawn into the article during use, which can mix with the heated volatilised components thereby cooling the aerosol.

[0150] The ventilation enhances the generation of visible heated volatilised components from the article when it is heated in use. The heated volatilised components are made visible by the process of cooling the heated volatilised components such that supersaturation of the heated volatilised components occurs. The heated volatilised components then undergo droplet formation, otherwise known as nucleation, and eventually the size of the aerosol particles of the

heated volatilised components increases by further condensation of the heated volatilised components and by coagulation of newly formed droplets from the heated volatilised components.

[0151] In some cases, the ratio of the cool air to the sum of the heated volatilised components and the cool air, known as the ventilation ratio, is at least 15%. A ventilation ratio of 15% enables the heated volatilised components to be made visible by the method described above. The visibility of the heated volatilised components enables the user to identify that the volatilised components have been generated and adds to the sensory experience of the smoking experience.

[0152] In another example, the ventilation ratio is between 50% and 85% to provide additional cooling to the heated volatilised components. In some cases, the ventilation ratio may be at least 60% or 65%.

[0153] As used herein, an aerosol-modifying agent is a substance, typically located downstream of the aerosol generation area, that is configured to modify the aerosol generated, for example by changing the taste, flavour, acidity or another characteristic of the aerosol. The aerosol-modifying agent may be provided in an aerosol-modifying agent release component, that is operable to selectively release the aerosol-modifying agent

[0154] The aerosol-modifying agent may, for example, be an additive or a sorbent. The aerosol-modifying agent may, for example, comprise one or more of a flavourant, a colourant, water, and a carbon adsorbent. The aerosol-modifying agent may, for example, be a solid, a liquid, or a gel. The aerosol-modifying agent may be in powder, thread or granule form. The aerosol-modifying agent may be free from filtration material.

[0155] The various embodiments described herein are presented only to assist in understanding and teaching the claimed features. These embodiments are provided as a representative sample of embodiments only, and are not exhaustive and/or exclusive. It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects described herein are not to be considered limitations on the scope of the invention as defined by the claims or limitations on equivalents to the claims, and that other embodiments may be utilised and modifications may be made without departing from the scope of the claimed invention. Various embodiments of the invention may suitably comprise, consist of, or consist essentially of, appropriate combinations of the disclosed elements, components, features, parts, steps, means, etc, other than those specifically described herein. In addition, this disclosure may include other inventions not presently claimed, but which may be claimed in future.

1. An aerosol generating material comprising a blend, the blend comprising at least 20% lamina tobacco, by weight of the blend, wherein the aerosol generating material is in the form of discrete particles.

2. An aerosol generating material according to claim 1, wherein the aerosol generating material comprises tobacco material in an amount of between about 65% and about 85% by weight of the aerosol generating material, water in an amount of between about 1% and about 10% by weight of the aerosol generating material, and an aerosol-former material in an amount of between about 10% and about 30% by weight of the aerosol generating material.

3. An aerosol generating material according to claim 1 or claim 2, comprising about 75% tobacco, about 4% water, and about 20% aerosol-former material, by weight of the aerosol generating material.

4. An aerosol generating material according to any one of claims 1 to 3, wherein the blend comprises at least about 30% lamina tobacco.

5. An aerosol generating material according to any one of claims 1 to 4, wherein the blend further comprises reconstituted tobacco.

6. An aerosol generating material according to claim 5, wherein the blend comprises up to about 80% reconstituted tobacco and more than about 20% lamina tobacco, by weight of the blend.

7. An aerosol generating material according to claim 5 or claim 6, wherein the blend comprises between about 60% to about 80% reconstituted tobacco and between about 20% to about 40% lamina tobacco, by weight of the blend.

8. An aerosol generating material according to any one of claims 5 to 7, wherein the blend comprises about 60% reconstituted tobacco and about 40% lamina tobacco, by weight of the blend.

9. An aerosol generating material according to any one of claims 1 to 8, wherein the particles are extruded, compressed or moulded.

10. An aerosol generating material according any one of claims 1 to 9, wherein the particles are beads or pellets.

11. An aerosol generating material according to claim 10, wherein the beads or pellets are substantially spherical.

12. An aerosol generating material according to claim 10 or claim 11, wherein the beads or pellets have a diameter of about 0.5 to about 3 mm.

13. An aerosol generating material according to any one of claims 1 to 12, wherein the blend further comprises a flavourant.

14. Use of an aerosol generating material as claimed in any one claims 1 to 13 in an article for use in a non-combustible aerosol provision system.

15. An article for use in a non-combustible aerosol provision system comprising the aerosol generating material as claimed in any one of claims 1 to 13.

16. A method of preparing an aerosol generating material according to any one of claims 1 to 13, the method comprising:

- grinding an initial tobacco blend to produce a ground blend,
- mixing and extruding the ground blend to produce an extruded blend,

performing spheronisation on the extruded blend to produce substantially spherical particles;

and drying the substantially spherical particles.

17. A method according to claim 16, wherein the initial tobacco blend comprises reconstituted tobacco and lamina tobacco.

18. A method according to claim 16 or claim 17, wherein the grinding and mixing comprises grinding the initial tobacco blend into particles smaller than 250 microns.

19. A method according to any one of claims 16 to 18, wherein mixing and extruding includes mixing the ground composition; adding glycerol and water; and mixing until the mixture is homogenous.

20. A method according to any one of claims 16 to 19, wherein drying comprises placing the particles in an oven at 65° C. for between about 30 to about 180 minutes.

21. An article for an aerosol provision system comprising a first aerosol generating material in a first form and a second aerosol generating material in a second form, wherein the first and second aerosol generating materials are prepared from the same blend and the first form and second form are different.

22. An article according to claim 21, wherein the article comprises an aerosol-generating section comprising a first region and a second region, and wherein the first aerosol generating material is located in the first region and the second aerosol generating material is located in the second region.

23. An article according to claim 21 or claim 22, wherein the first aerosol generating material or the second aerosol generating material is in the form of discrete particles, and wherein the discrete particles are extruded, compressed or moulded, or wherein the discrete particles are beads or pellets.

24. An article for use with an aerosol provision system comprising a first aerosol generating material comprising a first blend in the form of discrete particles, the first blend comprising at least 20% lamina tobacco, by weight of the first blend, and a second aerosol generating material comprising a second blend, the second blend comprising at least 20% lamina tobacco, by weight of the second blend optionally, wherein the second blend is in the form of shredded tobacco.

25. An article according to claim 24, wherein the discrete particles are extruded, compressed or moulded, and/or wherein the particles are beads or pellets, and/or wherein the first blend and the second blend comprise about 40% lamina and about 60% reconstituted tobacco

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