material for aerosol-generating article is therefore less suitable because the exact composition of the tobacco dust is not known.

There is therefore a need for a new method of preparing a homogenized tobacco material for the use in a heated aerosol-generating article of the “heat-not-burn” type that is adapted to the different heating characteristics and aerosol forming needs of such a heated aerosol-generating article. Further, there is a need for a homogenized tobacco material having a tensile strength adapted to withstand the forces acting on the homogenized material.

According to a first aspect, the invention relates to a method for the production of a homogenized tobacco material, the method comprising: creating a cellulose pulp from cellulose fibers and water, providing a tobacco powder blend; and combining the cellulose pulp, the tobacco powder blend, a binder and aerosol–former to form said slurry. According to the invention, the binder and the aerosol–former are pre-mixed in order to form a suspension, wherein the water content of the suspension of binder in aerosol-former is smaller than about 1 percent of the total weight of the suspension and then combined with the cellulose pulp and tobacco powder blend.

Homogenized tobacco materials are formed by mixing several ingredients with water to obtain a slurry and then, for example by casting the slurry, creating a continuous web of homogenized material on a support. It is desired that the resulting of homogenized tobacco material has a relatively high tensile strength and a good homogeneity.

A reduced tensile strength may lead to difficulties in subsequent handling of the homogenized tobacco web in the production of the aerosol-generating article and could for example cause machine stops. Additionally, an inhomogeneous tobacco web may create unintended difference in the aerosol delivery between aerosol generating articles that are produced from the same homogenized tobacco web.

Further, another important parameter of the slurry which is used to realize the homogenized tobacco material is its viscosity, in particular at the time of casting or otherwise forming the continuous web of tobacco. Viscosity influences the tensile strength of the homogenized tobacco web and its uniformity. The density of the slurry, in particular before a step of casting the slurry to form a homogenized tobacco web, is important for determining the end quality of the web itself. A proper slurry density and homogeneity minimizes the number of defects and maximizes tensile strength of the web.

The slurry comprises a number of components to produce the homogenized tobacco web. These components influence the homogenized tobacco material properties. A first

ingredient is a tobacco powder blend, which preferably contains the majority of the tobacco present in the slurry. The tobacco powder blend is the source of the majority of tobacco in

Claims

1. Method of production of a homogenized tobacco material, said method comprising:

- suspending a binder in an aerosol-former to form a suspension, wherein the water content of the suspension of binder in aerosol-former is smaller than about 1 percent of the total weight of the suspension;
    - creating a cellulose pulp from cellulose fibers and water;
    - providing a tobacco powder blend; and
    - combining the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend to form a slurry.

2. Method according to claim 1, further comprising the step of:
    - Adding water to the slurry formed by the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend.

3. Method according to claim 1 or 2, wherein the step of forming a pulp with cellulose fibers and water comprises:
    - Forming a concentrated pulp wherein the cellulose fibers in the concentrated pulp are in an amount comprised between about 3 percent and 5 percent of the total weight of the pulp.

4. Method according to any of the preceding claims, wherein the step of combining the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend to form the slurry comprises the step of:
    - Combining the suspension of binder in an aerosol-former, the cellulose pulp and the tobacco powder blend in such a proportion that the binder is in an amount comprised between about 1 percent and about 5 percent in dry weight basis of the slurry.

5. Method according to any of the preceding claims, wherein the step of combining said suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend to form the slurry comprises:
    - Combining the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend in such a proportion that the aerosol-former is in an amount comprised between about 5 percent and about 30 percent in dry weight basis of the slurry.

6. Method according to any of the preceding claims, further comprising:
    - Combining the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend to form the slurry in a tank; and
    - Cooling the tank in order to keep a temperature of the slurry between about 15 degrees Celsius and about 40 degrees Celsius.

7. Method according to any of the preceding claims, further comprising:
    - Combining the suspension of binder in aerosol-former, the cellulose pulp and the tobacco powder blend to form the slurry in a tank; and
    - Mixing the slurry.

8. Method according to claim 7, wherein the slurry mixing is performed in a tank defining a central region and an outer mantel, the mixing being performed by means of a spiral mixer adapted to remove slurry from the outer mantel and to direct it towards said central region or to remove slurry from the central region and to direct it towards the outer mantel, so as to uniformly mix the slurry.

9. Method according to any of the preceding claims, wherein the step of forming a pulp with cellulose fibers and water comprises:
    - reducing the fiber length of the cellulose fibers by means of grinding in order to obtain a mean fiber length of the cellulose fibers comprised between about 0.2 millimetres and about 4 millimetres.

10. Method according to any of the preceding claims, wherein the step of forming a pulp with cellulose fibers and water comprises:
    - At least partially fibrillating the cellulose fibers.

11. Method according to any of the preceding claims, wherein the step of mixing binder and aerosol-former to form a suspension comprises:
    - Adding a first amount of binder to a first amount of aerosol-former;
    - Mixing the first amount of binder and the first amount of aerosol-former; and
    - Adding a second amount of aerosol-former.

12. Method according to any of the preceding claims, further comprising one or more of the following steps:

- Monitoring a viscosity of the slurry;
- Monitoring a temperature of the slurry; or
- Monitoring moisture of the slurry.

13. Method according to any of the preceding claims, comprising:
    - Casting the slurry so as to form a continuous homogenized tobacco web; and
    - Drying the homogenized tobacco web.

14. Method according to claim 13, wherein, before the casting step, the moisture of the slurry is comprised between about 60 percent and about 80 percent of the total weight of the slurry.

15. Homogenized tobacco material comprising:
    - a binder in an amount comprised between about 1 percent and 5 percent in dry weight basis of said homogenized tobacco material;
    - an aerosol-former in an amount comprised between about 5 percent and about 30 percent in dry weight basis of said homogenized tobacco material;
    - a grinded tobacco blend in an amount comprised between about 20 percent and about 93 percent in dry weight basis of said homogenized tobacco material; and
    - cellulose fibres added to cellulose fibres present in the grinded tobacco blend, the added cellulose fibres being in an amount comprised between about 1 percent and about 3 percent in dry weight basis of said homogenized tobacco material, said cellulose fibers comprising fibers from one or more of wood, flax, or tobacco.

16. Aerosol-generating device including a portion of said homogenized tobacco material realized according to the method of any of claims 1 – 14, or according to claim 15.