overall filter length. More preferably, the length of the first filter segment is less than about 40 percent of the overall filter length.

In certain preferred embodiments, the length of the first filter segment is between about 10 percent and about 80 percent of the overall filter length. In more preferred embodiments, the length of the first filter segment is between about 20 percent and about 60 percent of the overall filter length. In still more preferred embodiments, the length of the first filter segment is between about 30 percent and about 40 percent of the overall filter length.

In certain preferred embodiments of the invention, the combined length of the hollow tube segment and the first filter segment is at least about 35 percent of the overall filter length. Preferably, the combined length of the hollow tube segment and the first filter segment is at least about 50 percent of the overall filter length. More preferably, the combined length of the hollow tube segment and the first filter segment is at least about 70 percent of the overall filter length.

The at least one circumferential row of perforations may be located at least about 2 mm upstream from the downstream end of the filtration portion. Preferably, the at least one circumferential row of perforations is located at least about 5 mm upstream from the downstream end of the first filter segment. More preferably, the at least one circumferential row of perforations is located at least about 5 mm upstream from the downstream end of the first filter segment. In more preferred embodiments, the at least one circumferential row of perforations is located at least about 8 mm upstream from the downstream end of the first filter segment. This advantageously makes it less likely for the consumer to obstruct the ventilation zone when holding the smoking article with his or her lips or fingers.

In addition, or as an alternative, the at least one circumferential row of perforations is preferably located less than about 12 mm upstream from the downstream end of the first filter segment. More preferably, the at least one circumferential row of perforations is preferably located less than about 10 mm upstream from the downstream end of the first filter segment. This can ensure the at least one circumferential row of perforations is not positioned too close to the tobacco rod.

In some preferred embodiments, the at least one circumferential row of perforations is preferably located from about 1 mm to about 12 mm upstream from the downstream end of the first filter segment. In some more preferred embodiments, the at least one circumferential row of perforations is preferably located from about 3 mm to about 10 mm upstream from the downstream end of the first filter segment. In further preferred embodiments, the at least one circumferential row of perforations is preferably located from about 8 mm to about 10 mm upstream of the downstream end of the first filter segment. Alternatively, or in addition, according to the invention, the at least one circumferential row of perforations is disposed a distance from the mouth end of the filter that is at least about 50 percent of the overall filter

The filtration material within each filter segment of the smoking article is preferably a plug of fibrous filtration material, such as cellulose acetate tow or paper. A filter plasticiser may be applied to the fibrous filtration material in a conventional manner, by spraying it onto the separated fibres, preferably before applying any additional material to the filtration material. Alternatively, or in addition, smoking articles in accordance with the present invention may include one or more segments containing one or more additives. These additives may include, but are not limited to, flavorants and carbon particles. Where the first filter segment comprises cellulose acetate tow, the cellulose acetate tow may have a denier of at least 1.5 to 8 dpf.

Preferably, the rod end segment comprises carbon particles. Preferably, the carbon is activated carbon. In preferred embodiments, the density of carbon particles in the rod end segment is at least about 1 milligram of carbon per millimetre of filtration material. More preferably, the density of carbon particles in the rod end segment is at least about 5 milligrams of carbon per millimetre of filtration material. The density of carbon particles in the rod end segment may not be greater than about 15 milligrams of carbon per millimetre of filtration material, preferably not greater than 10 milligrams of carbon per millimetre of filtration material.

The density of carbon particles in the rod end segment may be between about 1 milligram of carbon per millimetre of filtration material and about 15 milligrams of carbon per millimetre of filtration material, preferably between about 5 milligrams of carbon per millimetre of filtration material and about 10 milligrams of carbon per millimetre of filtration material.

The hollow tube segment may be formed from any suitable material. For example, the hollow tube segment may be formed from an annular shaped segment of filtration material, such as cellulose acetate, having a hollow core extending from the upstream end of the annular shaped segment to the downstream end of the annular shaped segment. Such segments may be referred to as a hollow acetate tube. Preferably, the filtration material of the annular shaped segment is of high particulate efficiency. Preferably, the filtration material of the annular shaped segment comprises fibres of between approximately 1.5 denier per filament (dpf) and approximately 5 dpf, more preferably between approximately 1.5 denier per filament (dpf) and approximately 3 dpf. In a preferred embodiment, the filtration material of the annular shaped segment comprises fibres of approximately 3.3 dpf. Preferably, the filtration material of the annular shaped segment comprises fibres of between approximately 30000 total denier (td) and approximately 50000 td, more preferably between 35000 total denier (td) and approximately 50000 td. In a preferred embodiment, the filtration material of the annular shaped segment comprises fibres of approximately 44000 td. Preferably, the hollow tube segment comprises one or more plasticisers. Suitable plasticisers include triacetin, and triethylenglycol di-acetate. Preferably, the plasticiser is present in the annular shaped segment in an amount of between about 5 and about 15 percentage weight, more preferably between about 8 and about 12 percentage weight. This can help the hollow tube segment to maintain its structural rigidity in

CLAIMS

1. A smoking article comprising:

a tobacco rod; and

a filter connected to the tobacco rod by a tipping wrapper, the filter comprising:

a hollow mouth end portion formed by a hollow tube segment that is disposed at the mouth end of the filter; and

a filtration portion upstream of the hollow mouth end portion, the filtration portion comprising one or more filter segments;

wherein the hollow mouth end portion defines a cavity at the mouth end of the filter providing an unrestricted flow channel that extends from the downstream end of the filtration portion to the mouth end of the filter,

wherein the length of the hollow mouth end portion is at least about 25 percent of the overall filter length and wherein the smoking article comprises a ventilation zone comprising at least one circumferential row of perforations provided at a location around the filtration portion,

wherein the length of the hollow tube segment is at least about 10 mm, and

wherein the hollow tube segment is formed from a plurality of overlapping paper layers.

2. A smoking article according to claim 1, wherein the length of the hollow tube segment is less than about 50 percent of the overall filter length.

3. A smoking article according to claim 1 or 2, wherein the length of the hollow tube segment is less than about 30 mm.

4. A smoking article according to any one of the preceding claims, wherein the at least one circumferential row of perforations is located at least about 2 mm upstream from the downstream end of the filtration portion.

5. A smoking article according to any one of the preceding claims, wherein the ventilation zone is located at least about 1 mm downstream from the upstream end of the filtration portion.

6. A smoking article according to any one of the preceding claims wherein the hollow tube segment and one or more filter segment or segments of the filtration portion are circumscribed

by a band of combining plug wrap having a basis weight of between about 70 grams per square metre and about 120 grams per square metre.

7. A smoking article according to any one of the preceding claims, wherein the wall thickness of the hollow tube segment is from about 100 micrometres to about 300 micrometres.

8. A smoking article according to claim 7, wherein the wall thickness of the hollow tube segment is from about 200 micrometres to about 270 micrometres.

9. A smoking article according to any one of the preceding claims, wherein the hollow tube segment is formed from a plurality of spirally wound paper layers.

10. A smoking article according to any one of the preceding claims, wherein adjacent paper layers of the hollow tube segment are adhered together by an intermediate layer of an adhesive.

11. The smoking article according to any one of the preceding claims, wherein the difference between the ovality of the hollow tube segment after 50 percent deformation of the filter and the ovality of the hollow tube segment prior to deformation of the filter is less than 25 percent.

12. A smoking article according to any one of the preceding claims, wherein the ovality of the hollow tube segment after a 50 percent deformation of the filter is less than 25 percent.

13. A smoking article according to any one of the preceding claims, wherein the one or more filter segments of the filtration portion comprise a first filter segment, and wherein the length of the first filter segment is at least 10 mm.

14. A smoking article according to claim 13, wherein the lengths of the hollow tube segment is within 2 mm of the length of the first filter segment.

15. A smoking article according to claim 13 or 14, wherein the length of the hollow tube segment is less than the length of the first filter segment.

16. A smoking article according to any one of claims 13 to 15, wherein the length of the first filter segment is at least 30 percent of the overall filter length.

17. A smoking article according to any one of claims 13 to 16, wherein the combined length of the hollow tube segment and the first filter segment is at least about 50 percent of the overall filter length.

18. A smoking article according to any one of the preceding claims, wherein the at least one circumferential row of perforations is provided at least 18 mm from the mouth end of the filter.

19. A smoking article according to any one of the preceding claims, wherein the at least one circumferential row of perforations is disposed a distance from the mouth end that is at least 50 percent of the overall filter length.

20. A smoking article according to any one of the preceding claims, wherein the one or more filter segments of the filtration portion comprise a rod end segment of filtration material.

21. A smoking article according to claim 20, wherein the length of the rod end segment of filtration material is within 1 mm of the length of the first filter segment.

22. A smoking article according to claims 20 or 21, wherein the length of the rod end segment of filtration material is at least about 30 percent of the overall filter length.

23. A smoking article according to any one of claims 20 to 22, wherein the rod end segment of filtration material comprises activated carbon.

24. A smoking article according to any one of claims 20 to 23, wherein the upstream end of the rod end segment of filtration material abuts the tobacco rod.

25. A smoking article according to any one of claims 20 to 24, wherein the upstream end of the first filter segment abuts the rod end segment of filtration material.

26. A smoking article according to claims 13 to 17, wherein the first filter segment comprises a cellulose acetate tow.

27. A smoking article according to claim 26, wherein the cellulose acetate tow has a denier of at least 1.5 to 8 denier per filament (dpf).