

SMOKING ARTICLE WITH REDUCED MOUTH END STAINING

This disclosure relates to smoking articles having a novel and inventive mouth end portion that prevents or reduces staining of the mouth end of the smoking article.

5 Combustible smoking articles, such as cigarettes, typically have shredded tobacco surrounded by a paper wrapper forming a tobacco rod. A cigarette is employed by a smoker by lighting one end of the cigarette and burning the shredded tobacco rod. The smoker then receives mainstream smoke into their mouth by drawing on the opposite end or mouth end of the cigarette, which typically contains a filter. The shredded tobacco can be a single type
10 of tobacco or a blend of two or more types of tobacco depending of the brand of cigarette.

A number of smoking articles in which an aerosol generating substrate, such as tobacco, is heated rather than combusted have also been proposed in the art. In heated smoking articles, the aerosol is generated by heating the aerosol generating substrate. Known heated smoking articles include, for example, smoking articles in which an aerosol is
15 generated by electrical heating or by the transfer of heat from a combustible fuel element or heat source to an aerosol generating substrate. During smoking, volatile compounds are released from the aerosol generating substrate by heat transfer from the heat source and entrained in air drawn through the smoking article. As the released compounds cool they condense to form an aerosol that is inhaled by the consumer. Also known are smoking
20 articles in which a nicotine-containing aerosol is generated from a tobacco material, tobacco extract, or other nicotine source, without combustion, and in some cases without heating, for example through a chemical reaction.

The filters in smoking articles tend to stain during use. Such staining is typically visible at the mouth end of the article. Some smokers would prefer a smoking article in
25 which staining is not significant or visible after smoking.

It would be desirable to provide a smoking article that tends to result in less staining at the mouth end filter portion than currently available smoking articles.

In one ~~aspect embodiment of the disclosure~~, there is provided a smoking article comprising: a mouth end filter portion including a central filter plug having an outer surface
30 and a peripheral region disposed about the outer surface of the central filter plug; and an exterior wrap disposed about the peripheral region of the mouth end filter portion, wherein the permeability of smoke through the peripheral region is five times or more greater than the permeability of smoke through the central filter plug; and wherein the peripheral region comprises one or more channels through which smoke is configured to flow, wherein the

channels are formed from spacing between one or more strips disposed about and in contact with the central filter plug, and further wherein the channels extend from the outer surface of the central filter plug to an inner surface of the exterior wrap.

5 In one aspect of the disclosure, there is provided a smoking article comprising a filter
comprising: a mouth end filter portion including a central filter plug having an outer surface
and a peripheral region disposed about the outer surface of the central filter plug; and an
exterior wrap disposed about the peripheral region of the mouth end filter portion, wherein
the permeability of smoke through the peripheral region is five times or more greater than
the permeability of smoke through the central filter plug; and wherein the peripheral region
10 comprises one or more channels through which smoke is configured to flow, wherein the one
or more channels are formed from spacing between one or more strips disposed about and
in contact with the central filter plug, and further wherein the one or more channels extend
from the outer surface of the central filter plug to an inner surface of the exterior wrap; and
an upstream filter portion of the mouth end filter portion, wherein the upstream filter portion is
15 substantially the same diameter as the mouth end filter portion, and wherein the upstream
filter portion contributes substantially more to filtering than the mouth end portion.

 In one embodiment, smoking articles have a mouth end filter portion that includes a central filter plug having an outer surface. The mouth end filter portion further includes a peripheral region disposed about the outer surface of the central filter plug. The smoking
20 article includes an exterior wrap that is disposed about the peripheral region of the mouth end filter portion. The permeability of smoke through the peripheral region is five times or more greater than the permeability of smoke through the central filter plug. By increasing the permeability of smoke around the central filter plug, less

CLAIMS

1. A smoking article comprising a filter comprising:

a mouth end filter portion including a central filter plug having an outer surface and a peripheral region disposed about the outer surface of the central filter plug; and

an exterior wrap disposed about the peripheral region of the mouth end filter portion, wherein the permeability of smoke through the peripheral region is five times or more greater than the permeability of smoke through the central filter plug; and wherein the peripheral region comprises one or more channels through which smoke is configured to flow,

wherein the one or more channels are formed from spacing between one or more strips disposed about and in contact with the central filter plug, and further wherein the one or more channels extend from the outer surface of the central filter plug to an inner surface of the exterior wrap; and

an upstream filter portion of the mouth end filter portion, wherein the upstream filter portion is substantially the same diameter as the mouth end filter portion, and wherein the upstream filter portion contributes substantially more to filtering than the mouth end portion.

2. A smoking article according to claim 1, wherein the permeability of smoke through the peripheral region is ten or more greater than the permeability of smoke through the central filter portion.

3. A smoking article according to any one ~~or~~ of the preceding claims, further comprising tipping paper circumscribing at least a portion of the exterior wrap.

4. A smoking article according to any one of the preceding claims, wherein the one or more channels have a cross-sectional area of about 1.0 mm² or greater along the length of the channels.

5. A smoking article according to any one of the preceding claims, wherein the one or more channels have a width of about 1.0 mm or greater along the length of the

channel and have a height of about 0.1 mm or greater along the length of the channel.

6. A smoking article according to any of the preceding claims, wherein the central filter portion comprises cellulose acetate tow.

7. A smoking article according to claim 6, wherein the central filter portion further comprises at least 10% by weight of a plasticizer.

~~8. A smoking article according to any of the preceding claims, further comprising an upstream filter portion adjacent and upstream of the mouth end portion.~~

98. A smoking article according to claim ~~8~~1, wherein the upstream filter portion has permeability different than the permeability of the central filter plug.

~~109.~~ A smoking article according to claim ~~8~~ or claim ~~9~~1, wherein the upstream filter portion ~~has a diameter substantially the same as the diameter of the mouth end portion~~ is free of peripheral channels.

~~41~~10. A smoking article according to any of the preceding claims, wherein the exterior wrap comprises one or more ventilation holes upstream of the mouth end ~~segment~~filter portion.

~~42~~11. A smoking article according to any of the preceding claims, wherein the mouth end filter portion extends to a mouth end of the smoking article.

~~43~~12. A smoking article according to any of the preceding claims, further comprising a tube comprising peripheral channel and defining an inner lumen, wherein the inner lumen is substantially axially aligned with the central filter plug of the mouth end filter portion and wherein the peripheral channel of the tube is configured to communicate with the peripheral region of the mouth end filter portion.