FILTER SEGMENT COMPRISING AN ACETATE SALT AND GLYCERINE

The present invention relates to a filter segment comprising an amino acid acetate salt and glycerine for use in a filter of a smoking article and to a filter and a smoking article comprising such a filter segment.

Filter cigarettes generally comprise a rod of tobacco cut filler surrounded by a paper wrapper and a cylindrical filter aligned in end-to end relationship with the wrapped tobacco rod and attached thereto by tipping paper.

In conventional filter cigarettes, the filter may consist of a single segment of filtration material, typically cellulose acetate tow, wrapped in porous plug wrap. Alternatively, the filter may be a multi-segment filter comprising two or more segments of filtration material for the removal of particulate and gaseous components of the mainstream smoke.

During the production of the filter, a tow material is pulled from a supply as a running web and is treated. The filter tow is made of a woven material of threads loosely adhering to one another which are pulled apart in order to form a wide and mostly level web such that the threads are moved next to one another and essentially parallel. The web is expanded in an expander nozzle. Typically the tow material is cellulose acetate. Following the expansion, an additive is supplied to the web in finely dispersed form. This additive is typically liquid and formed of droplets of triacetin. The droplets start to dissolve the threads such that the threads permanently stick together. The threads are then gathered to form a cylindrical rod and encased with a filter plug wrap.

Whilst triacetin helps keep the tow material together, there remains the desire to improve the stability of triacetin so that it maintains the structure of the tow material for even longer. This results in a filter segment having better structural rigidity or firmness which is desirable for consumers. Furthermore, stabilising triacetin avoids producing other compounds that could give an unexpected sensorial impact on mainstream smoke.

In one aspect, there is provided a filter segment comprising a tow material and triacetin, wherein the filter segment further comprises an amino acid acetate salt and glycerine.

In one aspect, there is provided a multi-segment filter comprising a filter segment as disclosed herein and one or more additional filter segments.

In one aspect, there is provided a smoking article comprising a filter segment as disclosed herein.

In one aspect, there is provided the use of an amino acid acetate salt and glycerine in a filter segment comprising a tow material and triacetin to stabilise the triacetin.

In one aspect, there is provided a method of preparing a filter segment comprising applying triacetin to a tow material, applying an aqueous solution of an amino acid acetate salt and glycerine to the tow material and forming a filter segment from the resulting tow material.

According to the present invention there is provided a filter segment for use in a filter of a smoking article, the filter segment comprising a tow material and triacetin, wherein the filter segment further comprises an amino acid acetate salt and glycerine.

The invention further provides the use of an amino acid acetate salt and glycerine in a filter segment comprising a tow material and triacetin to stabilise the triacetin. The use results in a tow material that maintains its structural rigidity or firmness.

The invention also provides a method of preparing a filter segment comprising applying triacetin to a tow material, applying an aqueous solution of an amino acid acetate salt and glycerine to the tow material and forming a filter segment from the resulting tow material.

As used herein, the term 'filter segment' is used to describe a segment for use in a filter. Use of the term 'filter segment' does not signify that the segment has significant filtration effect.