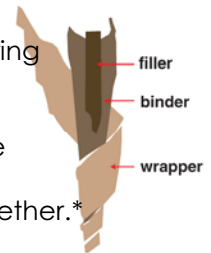




BULLETIN VC-701B (Supersedes VC-701A)

Ashland Products for Reconstituted Tobacco Sheets

Reconstituted Tobacco Sheets are produced from recycled tobacco dust generated during the production of cigarettes or cigars. These sheets or foils, also called “binders,” are used as a layer between the “filler” layer of tobacco and the “wrapper” layer, made of tobacco leaf, of a cigar. Ashland Specialty Ingredients has a number of products that are used as a binder in the production of reconstituted tobacco sheets. In addition to the use as a binder, cellulose ether solutions are also used to glue the various tobacco sheets together.*



Typical Process for Formation of the Tobacco Sheet:

An aqueous slurry of tobacco dust and cellulose ether must be kept cool and preferably used in situ to avoid degradation of the cellulose ether due to the build-up of micro-organisms. It is loaded onto a conveyor belt and passed through a doctor blade to form a tobacco sheet. Once the sheet is formed on the belt, it is sent through an oven to evaporate the water. The dried sheet or foil of reconstituted tobacco will be then cut into strips of the desired size.

A typical Reconstituted Tobacco Sheet Formulation (for 1000 g slurry) is as follows:

- 852 g Water
- 128 g Tobacco Dust
- 20 g Cellulose Ether
- Optional: 5 % Humectant*

The cellulose ether concentration is approximately 2-3% in slurry and 12-14% in Reconstituted Tobacco Sheets. The presence of long cellulose fibers can increase the strength of the foil.

Key quality criteria for Reconstituted Tobacco Sheets:

- Drying temperature in oven
- Low shrinkage upon drying
- Uniform appearance
- No scratches or lumps
- High tenacity (tearing strength)
- Sheet elasticity
- Taste of Reconstituted Tobacco Sheet during smoking

*The rheology modifier or binder for a Reconstituted Tobacco Sheet, as well as the cellulose ether solutions, are usually subject to regulations and/or guidelines which vary by country. For detailed information, please consult with your Regulatory Affairs Manager or Environmental Officer to confirm which regulations apply.

Aqualon™ cellulose ethers can provide a significant advantage by accepting a medium or high drying temperature, a good micro-organism stability, a very good taste, a good cross-linking as well as low shrinkage and high elasticity.

Typical products used as a binder are:

Culminal™ Methylcellulose 2.000

Culminal Methylhydroxyethylcellulose 8000

Benece™ M 043 Methylcellulose

Blanose™ Cellulose Gum Carboxymethylcellulose 7HXF/Aqualon Cellulose Gum 7HXF

Blanose Refined Carboxymethylcellulose 7HX/Aqualon Carboxymethylcellulose 7HX

Guar

For more detailed information or samples of these or other products, please contact your Ashland representative.