



**YAK-100% Hand Made**  
Professional Hand Papermaking

## Alpha Cellulose and Cotton Fibers



**Alpha Cellulose, the purest form of cellulose**

Before addressing the issue, let's start with cellulose and its origins. **Cellulose** is an organic compound or better to say a polysaccharide consisting of repeat units of the monomer glucose. This is the same glucose which your body metabolizes in order to live, but you can't digest it in the form of cellulose. **Cellulose is an important structural component of the primary cell wall of green plants and many forms of algae.** Cellulose is one of many polymers found in nature. Wood, paper, and cotton all contain cellulose. Cellulose is an excellent fiber. Wood, cotton, and hemp rope are all made of fibrous cellulose.

### Cellulose at a glance

Sources:	trees, woody plants, cotton
Uses:	paper, fibers (cotton, rayon, flax, hemp), component of shampoo thickeners
Monomer:	glucose
Morphology:	crystalline



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### **Alpha Cellulose**

One of three classes of cellulose, alpha cellulose has the highest degree of polymerization and is the most stable. Alpha cellulose is the major component of wood and paper pulp. Separated from cellulose sources, the white alpha cellulose is the purest form of insoluble cellulose used in the production of paper. A high percent of alpha cellulose in paper will provides a stable, permanent material. Linen and cotton contain high proportions of alpha cellulose.

**YAK handmade paper** is produced using different sources of alpha cellulose fibers such as fibers from cotton, linen, sugar cane, and etc and those extracted from wood pulps.

***There is no difference (from chemical point of view)  
between alpha cellulose fibers extracted from different  
sources.***

It means alpha cellulose is alpha cellulose! Of course different sources of cellulose have different amounts of alpha cellulose content: cotton (linter) yields more than 90% alpha cellulose content; wood has 40-50% alpha cellulose content; linen more than 90% alpha cellulose content; hemp more than 50% alpha cellulose content and so.

[YAK Paper Mill](http://www.yakpaper.com)



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