

## Building with paper

What comes first to our mind when we think about paper, is probably writing. Already in 4000 before Christ people used paper to write and draw on it, this kind of paper is commonly known as papyrus. But what about the crazy hypothesis that paper is a great building material?

The first questions which turns up could be: is it strong enough? Is it industrially processable?

And the answer is: it is!

Paper has lots of advantages compared to other building materials. As an advantage counts the property of regrowing, the economical production- which means the production is cheap-, the weight- which is nearly nothing-, and its great tensile strength. Another interesting fact is the possibility to recycle paper. In Germany for example the recycling rate of paper is 70 percent, which is quite high compared to other construction materials. This aspect is specially important if you know that the main source for trash are construction and demolition work. To point it up, in Germany there are approximately 58 million tons of building rubble per year.

But if there would only exist advantages to use it for building constructions it would obviously be more famous and common in the construction sector. So of course paper also has some disadvantages, which include no compressive strength, sensibility to moisture and the property to burn easily. But to find a possibility to solve those problems, you need to go deeper and inspect the chemical as well as the physical aspects of paper, what a lot of people already try to do.

## Sources:

- <http://www.buescher-betonfertigteile.de/forschung-entwicklung/forschung> (01 of November 2017)
- TU Darmstadt, Bauen mit Papier, lecture 1