

Corn Structure Pavilion

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Abstract

In these recent years, helping to preserve the earth has become a present aspect in our society. Since the building industry has a huge impact on the carbon dioxide emission, architects and engineers have begun to research alternative materials for their designs and construction, trying to minimize the consumption of resources and focusing on sustainable products. However, the material palette is still very limited which led to the use of a rather unconventional material, starting a thought-provoking impulse and pushing ourselves to think in different directions.

The main structure of the presented design is made of corn starch flips, which are commonly used as packaging material. Providing a design with bio-degradability and light weight material with the effect of self-adhesiveness led to this new material.

The flips will be attached to prefabricated components by moisture only. Positive side effects besides the biological aspects, are the transportation and construction. Breaking down the light-weight structure into smaller panels, makes it easy for transportation and setup. The corn starch flips provide the design with an uncomplicated design and construction feature for free form structures. The broad area of applications and the communality of the flips allows easy handling for everyone, from children to professionals.