

Recycling: changing eggshells into tiles

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Introduction

Egg is one of the commonly consumed foods in the world. In most foods, they always contain egg as their ingredients. As population increases, eggs are consumed more and more. Sadly, we keep on throwing away the waste, which is the eggshell. These eggshells will be taken away and never be used, while 94% of it contains calcium carbonate. Calcium builds human bone strong, so it is very effective to make a strong components. It's bad if we throw away these powerful items, so we made a way to recycle all of these into tiles, like the other regular floor tiles. Its durability is as similar as the real floor tiles. So, to reduce the waste, we must recycle it to be something useful.

Research Method

To do this research, we need eggs, fox glue, baby oil, lime, cornstarch. We also need to prepare mortar and pestle, cutter, tissue, and stove.

First, we need to take off the eggshell from the egg, clean it with water and dry it with tissue. Then peel off the thin layers on the eggshell, after that destroy the rest of the eggshell into smaller pieces becoming a powder-like substance using mortar and pestle. Add the powdered eggshells and the same amount of cornstarch into a cup of fox glue that is about 2 times the powdered eggshells. Fox glue is used to make the substance stick together, while the cornstarch solids them together. Note that the cup should be not sticky to prevent errors. Mix together and add baby oil until it is not sticky, since its characteristic is oily. Shape it into your preferred shape using cutter, and then cook it over low flame (use a small stove). While cooking, <https://assignbuster.com/recycling-changing-eggshells-into-tiles/>

drop some droplets of lime to make it harder until it is solid enough and stop the flame. Dropping some drops of lime gathers the heat to the tile as it is acidic. Now, it has formed your preferred tile shape, as strong as the regular floor tiles. For decorative purposes, it is not prohibited to paint it.

To test the durability of this tile, we tested dropping it from a height of 1.5 metres, as well as giving it a weight of 115 kilograms.

Results and Analysis

After dropping on a height of 1.5 meters, the tile didn't break off. Next, after the tile is given a weight of 115 kilograms, it also didn't break off.

Conclusion and Recommendation

The waste product of eggs which are eggshells are a lot in places such as restaurants. If it is recycled and made into tiles, we save money by not buying the ceramic tiles from stores. We also reduce waste since we recycle them. So, as we eat egg, never forget to recycle it and process them as the methods before.