

Putrify Napkins from Organic Fibre

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Abstract— the average pad is made with up to 90% plastic, dyes, and even perfume – nothing your intimate skin needs, especially on your period. This paper talks about biodegradable pad made from plant-based, breathable materials, designed to be super soft next to the skin. Effectively absorbent for every flow. Banana fiber has a proclivity to hues that makes it simpler to weave appealing structures from it. Crude filaments are cleaned through a straightforward fading technique utilizing antacid like sodium hydroxide and different polluting influences are expelled.

Keywords: Banana fiber, bleaching, sanitary napkins, biodegradable

I. INTRODUCTION

Female cleanliness is a regularly disregarded part of wellbeing, and even in 2019, there are various gynecological medical problems that still have constrained research far and wide. In view of such a restricted point of view on the 'unthinkable' subject of periods, we will in general overlook that India has 336 million discharging ladies; of them, 36% utilize expendable clean napkins.

Only 16 percent of ladies in India use them because of neediness and different reasons, which causes wellbeing and social issues. Simultaneously, producing them squanders a huge number of gallons of water, and 2,000,000 tons of cushions end up in landfills consistently. To help with all that, these cushions are reasonable, produced using disposed of banana tree filaments, fabricated in an economical way and 100 percent biodegradable. Banana plant is a pseudo stem also called as muse fiber there is no utilization of banana plant post gathering organic product. It is been chopped down and tossed or this plant pass on itself by the activity of abscisic corrosive (phytohormone) which are discharged close to the base of stem. The consumable piece of the banana stem is the inward part of the stringy stalk. This texture is an excellent, creature free material that copies genuine silk and goes about as an extraordinary veggie lover elective. Banana fiber material is half more permeable than synthetic items utilized in clean cushions. These cushions can biodegrade into fertilizer in only a half year.

II. METHODOLOGY

Development of banana fibers and napkins are carried out in following two steps:

A. Fiber Stage

This stage describes about how fibre is extracted and treated for further usage

- 1) Extraction of Fibers-Banana fibers are extracted manually or by the help of machine and hanged out for drying.



- 2) Softening of fibers in 5% NaOH solution-
 - a) The dried banana fiber is treated with 5% NaOH solution in a ratio of 1:30 i.e. 1 being the fiber and 30 being NaOH (4 gm. Sample in 120 ml NaOH solution).
 - b) After boiling in NaOH solution, the fiber is washed 3-4 times in water and will be soften.





- 3) Bleaching of fiber- The soften fiber will be treated with 1% H₂O₂(hydrogen peroxide). This will enable a white texture to the fiber.



B. Sheet Stage

The wet fiber is evenly spread on a plane surface or a casting surface and allowed to dry under sunlight. After drying, the sheet is removed carefully and pressed in a roller using sandwich method to convert it into super soft sheet.

III. RESULT

This super soft sheet can be cut into stripes, filled with left out banana extract or cotton fibers and sewed. In this way we can get a biodegradable sanitary napkin having good absorption. The pads have a modern, comfortable design to prevent leakage, and the banana fiber material is 50 percent more absorbent than chemical products used in regular sanitary pads. The material is surprisingly soft to the touch and doesn't irritate skin.

This research work didn't use bleach, sodium acrylate or any other chemical. They're not skin friendly and can cause rashes and UTIs. Because they contain no plastic or other non-organic materials, the pads biodegrade into compost in just three months, or six months in a landfill.



IV. FUTURE SCOPE

These napkins would be revolution in the field of resource management and recycling of waste product. It is cost effective and hygienic in practice. Usage of these napkins annihilates plastic sheets.

V. CONCLUSIONS

Its production can be taken up as a small-scale industry which may give employment to the people and cater to people belonging to below poverty line.

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