



Clean Joy, Made Simple

# What Scientists Say About Your Kitchen Sponge...

## 1. Duke University – Structural Factors Promoting Bacterial Diversity



Researchers at Duke University discovered that the porous structure of kitchen sponges provides an ideal environment for diverse bacterial communities. Their study demonstrated that the sponge's architecture allows both social and solitary bacteria to coexist, making it a better incubator for bacterial diversity than a laboratory petri dish.

## 2. American Society for Microbiology – Bacterial Survival on Sponges



AMERICAN  
SOCIETY  
FOR  
MICROBIOLOGY

Research presented at ASM Microbe Online by the University of Houston demonstrated that harmful bacteria such as *E. coli*, *Salmonella*, and *Staphylococcus aureus* can survive on kitchen sponges for up to 16 days. This study underscores the importance of regular sponge replacement and proper sanitation to prevent bacterial persistence.

## 3. National Sanitation Foundation – Household Sponge Contamination

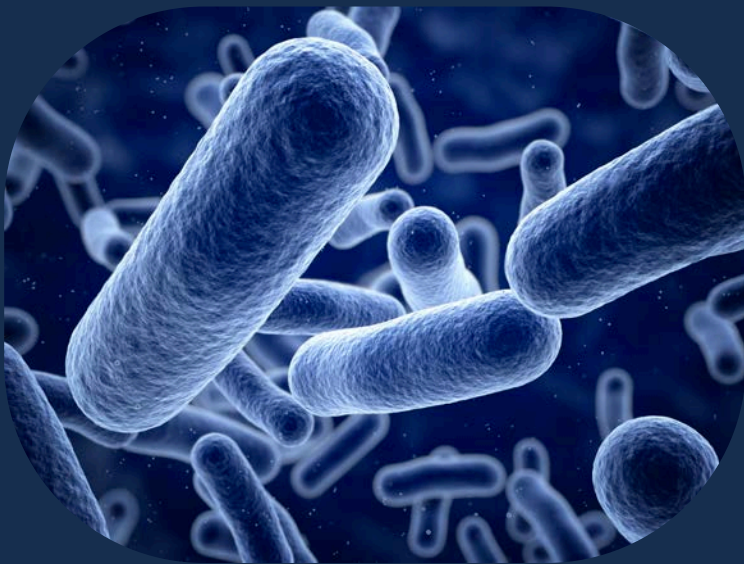


The National Sanitation Foundation conducted a study assessing bacterial contamination in household items. They found that 77% of dish sponges contained coliform bacteria, indicating significant microbial presence. This study emphasizes the need for regular cleaning and replacement of kitchen sponges to maintain hygiene.

# Current Sponges Have Some Serious Flaws



Microplastics



Slow drying  
and therefore  
perfect for  
bacterial  
growth

# SpongeMail™ Transforms The Mundane Into Something Memorable

SpongeMail™ transforms the kitchen sponge into a sustainable, hygienic, and visually delightful cleaning tool. This 3mm-thick compressed cellulose sponge, designed with scalloped edges resembling a postage stamp, expands to 35mm upon water contact, surprising users with its tactile innovation. Crafted from 100% plastic-free, biodegradable cellulose sourced from wood pulp, it decomposes in 2-6 weeks, leaving no microplastic residue.



Studies show that sponges harbor more bacteria than toilet seats (Frontiers in Microbiology, 2017). SpongeMail™ addresses these hygiene concerns with fading, stamp-inspired graphics that prompt timely replacement every 2 weeks to avoid excess bacterial growth.

SpongeMail's enhanced squeezability and rapid-drying design reduce bacterial growth, while vibrant designs elevate a mundane necessity into a joyful ritual. Compact for storage, SpongeMail embodies the 2025 theme "Reimagine Tomorrow" by blending eco-conscious plastic free materials, hygienic innovation, and aesthetic charm.



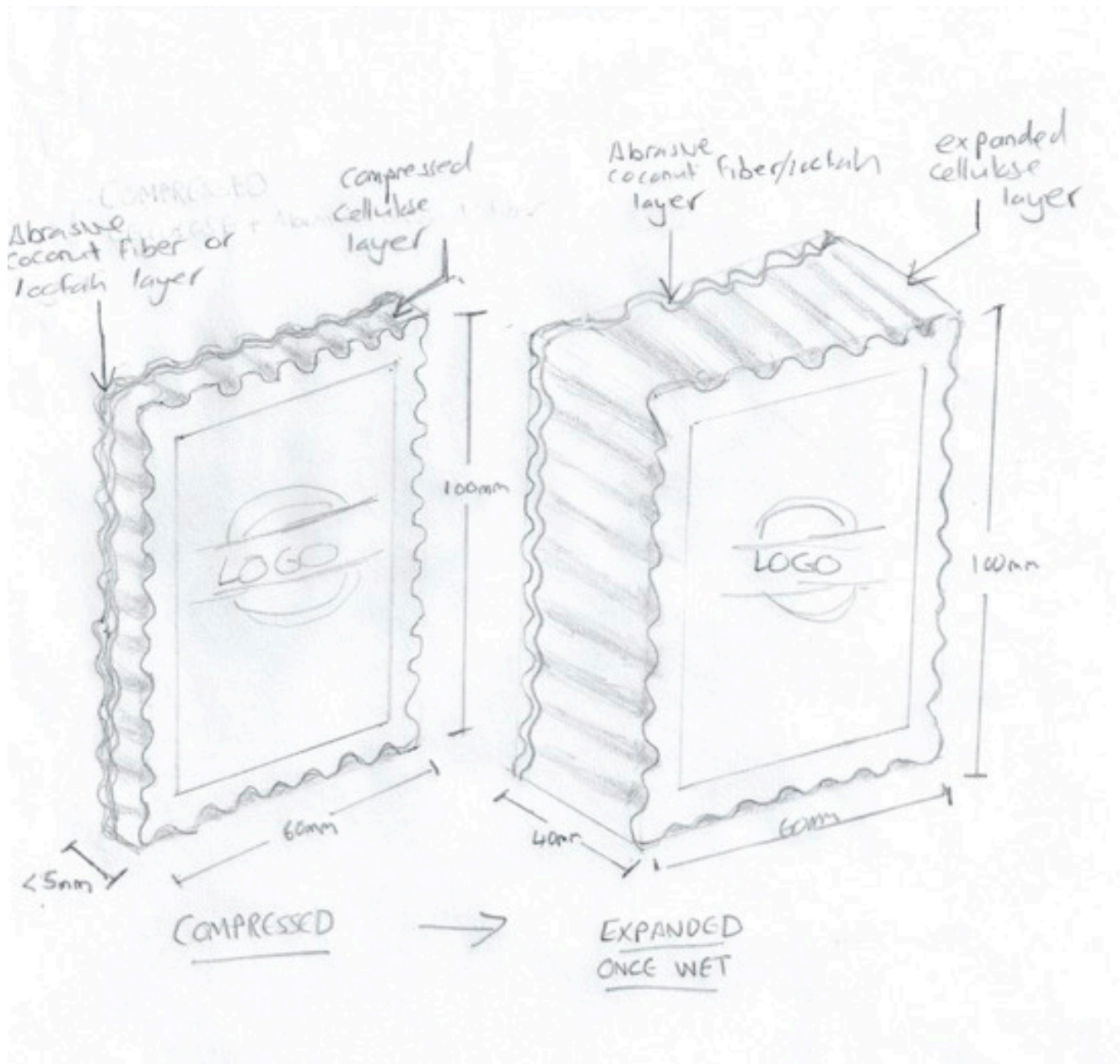
# Form



SpongeMail™'s aesthetic is both functional and captivating, with scalloped edges mimicking a postage stamp for a playful, nostalgic appeal. The 3mm compressed form, expanding to 35mm, offers a tactile surprise, enhancing user engagement. Vibrant, postal-art-inspired graphics add visual charm, transforming a utilitarian item into a kitchen centerpiece. The hypoallergenic cellulose ensures a smooth, safe surface, elevating the sensory experience.



*Above are just a few of our limitless postage stamp inspired designs.*



# The Sketch That Started It All

The idea was to transform a boring sponge from an aesthetically unattractive single function product into a cleaning product that is safer, more eco friendly and also aesthetically beautiful to match the evolving seasons and other kitchen decor.

# Creativity & Innovation

SpongeMail™ redefines sponge design with its compressed-to-expanded mechanism and fading graphics, a novel hygiene solution. The stamp-like form, inspired by postal art, merges creativity with practicality.

Unlike traditional sponges, it is both completely biodegradable and aesthetically pleasing, addressing environmental and health challenges with a fresh, user-centric approach.



*Graphics intentionally fade with use prompting customers to dispose of the sponge before bacterial levels rise to unsafe levels.*





# Finishing & Functionality

Crafted with precision, SpongeMail™'s cellulose is durable yet soft, ensuring superior absorbency and ease of use. Its enhanced squeezability allows rapid drying, reducing bacterial growth compared to conventional sponges' cavernous structure. The fading graphics ensure timely replacement, while the compact form optimizes storage. Safe and plastic-free, it delivers reliable performance for household cleaning.



*Squeezing action showing water expulsion.*



# Impact



SpongeMail™ promotes sustainable and hygienic living. Its biodegradable material eliminates microplastic pollution, aligning with 2025 eco-trends. By reducing bacterial risks, it fosters healthier kitchens. The SpongeMail™ design concept encourages eco-conscious habits, while its space-saving form benefits retail and households. SpongeMail™ inspires a shift toward joyful and responsible cleaning practices.



*Compostable disposal*

# Conclusion



SpongeMail™ reimagines the household sponge as a sustainable, hygienic, safe (plastic free) and delightful cleaning accessory. Its innovative design, eco-friendly materials, and user-centric features set a new benchmark, making it a deserving candidate for the 2025 NY Product Design Awards.



SpongeMail™

by



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