

Tastee Tape

Tyler Guarino, Erin Walsh, Rachel Nie, Marie Eric

Johns Hopkins University | Whiting School of Engineering | Baltimore, MD

Design Day 2022



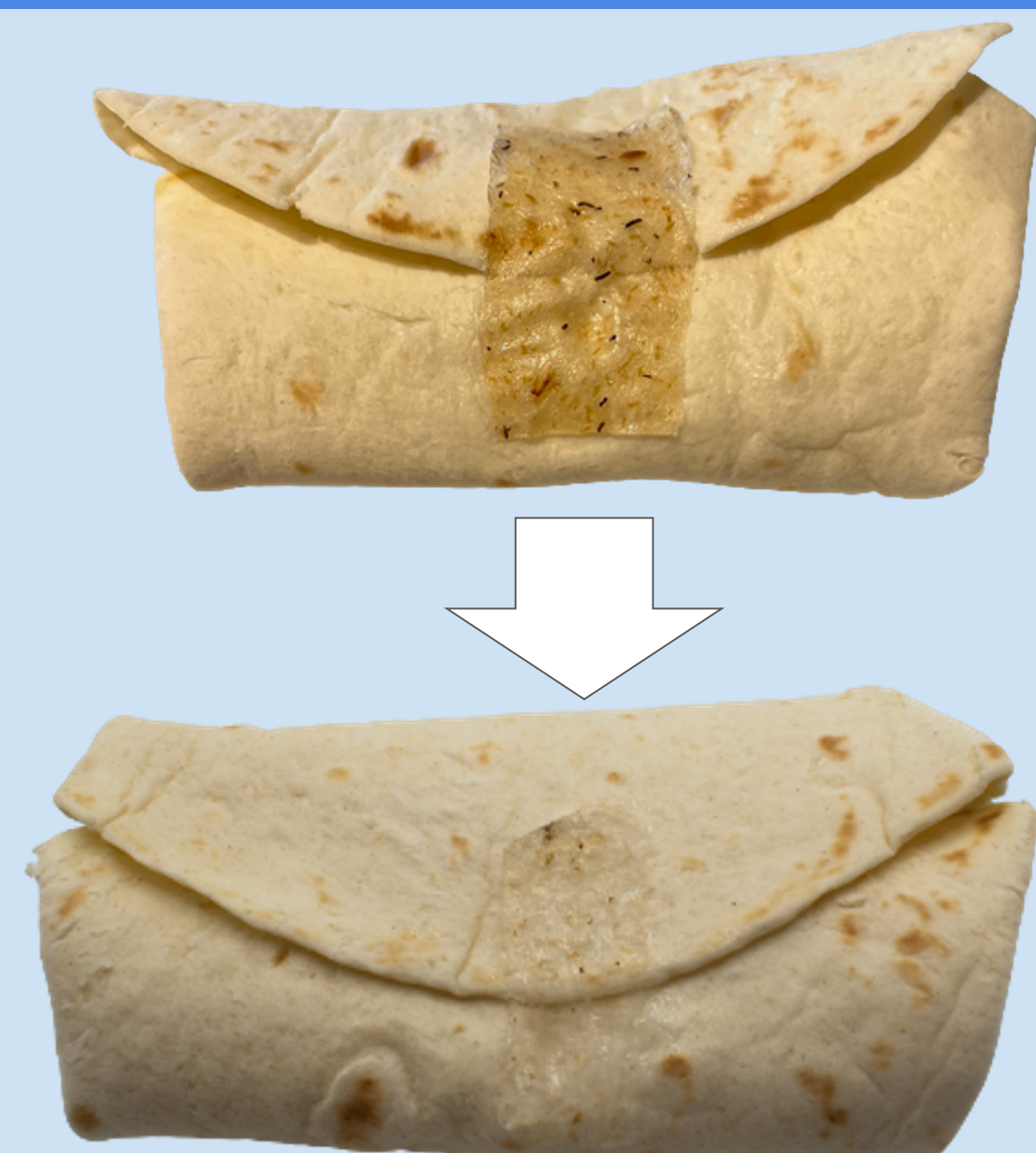
Abstract

Tastee Tape is an edible adhesive tape that keeps all your favorite wraps—from tacos to burritos to gyros—securely closed during cooking, serving, and consumption. Perfect for the at-home chef or taking lunch on the go, Tastee Tape allows you to put full faith in your tortilla and enjoy your meal mess-free.

Motivation

- Problem: Burritos, wraps, etc, being overfilled and unwrapped during cooking, serving or consumption.
Solution: A tape that will stick to your tortilla with incredible tensile strength, allowing you to cook and consume without worry.
- Problem: Having to wrap everything in tin foil, parchment paper, etc to hold your food together.
Solution: Tastee Tape will keep the burrito filling safe and sound. Thus, wrapping it in packaging will only be an add-on if you want to keep your food warm or transport it. It will not be a necessity.

Prototyping



Product

Tastee Tape is composed of a food grade fibrous back bone and an organic adhesive.

Note the Tastee Tape in the photos below have been dyed for visibility.



Step 1) Remove strip from sheet



Step 2) Thoroughly wet strip to activate



Step 3) Apply to wrap

Value Proposition

Who would buy Tastee Tape?

- At home chefs
- Restaurants selling burritos, wraps, gyros, etc.
- Delis
- Food trucks

What is the cost of making Tastee Tape?

- Each strip costs \$0.01 in materials
- The material cost for a pack of 50 pieces is \$0.50
- We suggest selling each pack for \$5
- Each piece profits \$0.09 leading to a 900% profit
- Each pack of tape profits \$4.50 for a 900% profit
- Notes these costs are strictly material and do not include manufacturing and packaging

Safety

Materials

All ingredients used are common food and dietary additives that are safe to consume and handle. All ingredients used are food grade and GRAS certified.

Tastee Tape Production

Producing Tastee Tape requires heating materials to induce polymerization and crosslinking of the polymers. Then, further heating dries the product before packaging. When heating the materials, it is important not to touch the metal pan or the heat source. It also is important to keep flammable substances away from the heat source. During production, appropriate personal protective equipment should be worn because the hot, viscous liquids can cause severe burns.

Future Directions

Tastee Tape can expand its line by creating double sided tape in order to broaden its uses. Tastee Tape is also interested in developing flavored tape to add extra zest to your food.

Acknowledgements

Thank you to our advisor, Dr. Donohue, for all of his guidance and help.

Thank you to the Chemical and Biomolecular Engineering department for their support and funding.