

OstoSeal: Waterproof and reusable ostomy pouch shower cover

Client: Mrs. Tami Mlodik

Advisor: Prof. Duc-Huy Nguyen

Team Members:

Eve Vosters (evosters@wisc.edu) - BWIG

Cassity Dechenne (dechenne@wisc.edu) - Co-Leader

Addison Tanner (artanner@wisc.edu) - Co-Leader

Kira Schienke (kschienke@wisc.edu) - Communicator

Lilli Tanner (ltanner5@wisc.edu) - BSAC

Lana Schardt (lschardt@wisc.edu) - BPAG

Date: September 11th, 2026 - September 17th, 2026

Problem statement

This project will work towards the creation of a safe, comfortable and effective ostomy pouch and wafer adhesive cover meant to keep the two components dry during showering. Current methods of keeping ostomy pouches and adhesives are often unreliable or inconvenient which negatively impacts the users quality of life. This cover is intended to work with a schedule of at least daily showers, and must be durable and easy enough to use in order to accommodate this stipulation. This device should be firmly waterproof and compact to support a schedule of daily use. Also, it must fit the variety of pouch sizes and waistline shapes and sizes that a person could have.

Brief status update

- Began and finished work on a product design specifications document.
- Completed extensive research on ostomy pouch/adhesive materials and standards.
- Began thinking about what design we want our product to take on.
- Emailed client to get a better idea of what she wants from the product.

Difficulties/advice requests

None at this time

Current design

No design at this time

Materials and expenses

No materials or expenses at this time

Item	Description	Manufacturer	Mft Pt#	Vendor	Vendor Cat#	Date	#	Cost Each	Total	Link
Category 1										
									\$0.00	
									\$0.00	
Category 2										
									\$0.00	
									\$0.00	
								TOTAL:	\$0.00	

Major team goals for the last week

1. Learn about what our project is all about.
2. Meet as a team on Friday along with our advisor.
3. Begin researching bag and adhesive materials.

Major team goals for the next week

1. Brainstorm designs and compile into a design matrix.
2. Continue researching the project.
3. Contact the client to acquire more information on her preferences.
4. Receive feedback on PDS and adjust accordingly.

Last week's individual goals

- Addison Tanner: Continue to learn about what an ostomy pouch/bag is, along with what materials are currently used.
- Eve Vosters: Conduct research on how the ostomy bag connects to the abdomen and continue researching materials used in similar projects/products.
- Kira Schienke: Research how an ostomy pouch works and what varies across different designs. Use notes from this week's client meeting to determine specific issues with existing products.
- Lana Schardt: Conduct research into the user experience of living with an ostomy and existing shower products for ostomy protection, familiarize myself with the expectations of the BPAG role.
- Lilli Tanner: Research what materials/adhesives are currently being used in products for showering with an ostomy pouch and what complaints/concerns there are with existing products.
- Cassidy Dechenne: Look into materials that can safely touch ostomy pouch/skin, research possible adhesives.

Next week's individual goals

- Addison Tanner: Create my individual designs prior to meeting as a team so that we can create a design matrix. Keep researching the material of the pouch cover as well as the adhesives. Update the product design specifications as needed.

- Eve Vosters: Continue researching materials for the adhesives of our design. Conduct further research on the adhesive used in the article, “An Environmentally Stable, Biocompatible, and Multilayered Wound Dressing Film with Reversible and Strong Adhesion” and see if this adhesive, or anything similar, can be purchased. Brainstorm ideas for preliminary designs using inspiration found from research. Continue to update the team website with any new documents created.
- Kira Schienke: Continue researching disposable adhesives. Learn what the cheapest option is that is still approved for use on skin. Continue developing my design idea combining the use of silicone and disposable adhesives to reduce waste; add specific dimensions and materials to the drawing.
- Lana Schardt: Continue researching material choices for our design, and compare options based off waterproof performance, durability, reusability, comfort and cost. Find places to purchase preliminary materials, and share material options with the client to incorporate her feedback during our prototyping process, as well as making sure she approves preliminary material purchases before we move forward. Start brainstorming my individual design for the project.
- Lilli Tanner: Start thinking about and creating my individual design for the product. Continue researching possible pouch cover materials, continue to consider how adhesive options may work with cover materials. Continue researching standards and specifications, updating product design specifications where necessary.
- Cassity Dechenne: Begin brainstorming for my individual design of the product. Continue researching ostomy pouch cover materials, focusing on user reviews to assess their pros and cons. Check in with team to see how I can improve in my role.

Timeline

 OstoSeal Project Timeline

Activities

Name	Date	Activity/Previous Week's Accomplishments	Time (h)	Week Total (h)	Sem. Total (h)
Addison Tanner	9/17/2026	- Completed and edited the product design specifications - Went through the client notes to better understand the project - Continued research and specifically looked into comparable products as well as materials	1.5 0.5 1	3	4
Eve Vosters	9/17/2026	- Continued research on ostomies in general, as well as similar projects and viable adhesives that could be used. - Contributed to the completion of the product Design Specifications Document. - Updated team website with the PDS and Progress Report 2.	2.5 0.5	3	4
Kira Schienke	9/17/2026	- Did a deep dive into adhesives for use on skin and compiled this into labarchives - Started developing ideas for the design for how the cover should adhere to the skin	1 1.5 1	3.5	4

		- Discussed with the team what our best material options were, then formatted these options into an easy-to-understand email to the client - Completed multiple sections of the PDS and helped review the document			
Lana Schardt	9/17/2026	- Conducted research on types of waterproof materials and their durability, as well as researched existing designs for ostomy protection in the shower - Completed and edited our product design specifications document	1.5 1	2.5	1
Lilli Tanner	9/17/2026	- Conducted research on possible material to use for pouch cover, size of ostomy pouches, and standards - Completed and edited the product design specifications	3 1	4	5
Cassity DeChenne	9/17/2026	- Researched ostomy pouch cover materials, current competing designs, standards. - Worked on and peer-reviewed multiple sections of the PDS.	2 2	4	5