





### serene

Design report 2023

You are now looking at the final Pack-Age course report for Paptic. The final packaging concept is created by five students within the timespan of September 2023 until December 2023.

During this project we worked together with Paptic. Therefore we would like to thank Esa Torniainen, co-founder and chief strategy officer of Paptic, and Valtteri Pussi, marketing specialist at Paptic, for their guidance and expertise.

Alongside we would like to thank Markus Joutsela, head teacher of Pack-Age minor, for organizing the minor and guiding us throughout the course.

Furthermore we would like to thank the teachers and guest lectures for their insightful presentations and knowledge shared during the course. We hope you will enjoy reading about our findings and final outcome of the project.

Liselotte (Lilo) Molin Viveka Natri Vita Potočnik Kristina Vasileva Puck Verbeek



December 2023

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# Our Team





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# Introduction



In this report we will guide you through our design and thinking process of the Pack-Age minor. A multidisciplinary packaging design minor at Aalto University with students from other universities as well, Lahti Institute of Design and University of Helsinki.

During the timespan of four months we went through a double-diamond design process. This process was split over two courses. The first course, Design Insight, was focussing on understanding the project brief, primary & secondary research, and ideating.

During the second course, Art of Packaging, the focus laid on prototyping and testing the final concept. Our team worked together with external partner Paptic, which we will introduce in the following chapter.

After that we will give an overview of the project timeline and share our primary and secondary research, our initial ideas and moodboards, together with some mock-ups.

We will discuss some intermediate feedback from the concept presentations, after which we dive into one final concept. With this final concept our team can start our branding experimentations, finalize the structure and start testing the material.

You are going to see final user input, after which we will share the final implementations and final design. In the end of this report there is a conclusion and future work.

# Company



We were honored to be collaborating with Paptic, a Finnish company at the forefront of the battle against plastic usage. They're driven by a strong commitment to sustainability, and their unique materials are designed to seamlessly fit into the circular economy, offering a recyclable alternative to plastics.

Not only are their materials lightweight, enhancing resource efficiency in terms of both material field and transportation, but they also prioritize transparency and sustainability in sourcing raw materials from well-managed forests. (Paptic, Sustainable raw materials)

Paptic's materials are incredibly versatile, easily integrating into existing printing and converting lines. They find application in various packaging forms such as bags, pouches, and wraps (Paptic, Applications).

One of the standout features is their special, soft texture, providing a tactile experience reminiscent of textiles. In comparison to paper, they offer a noiseless quality and allow a subtle play of light. Despite being lightweight, these materials boast tear resistance and strength.



### 4.1 Brief

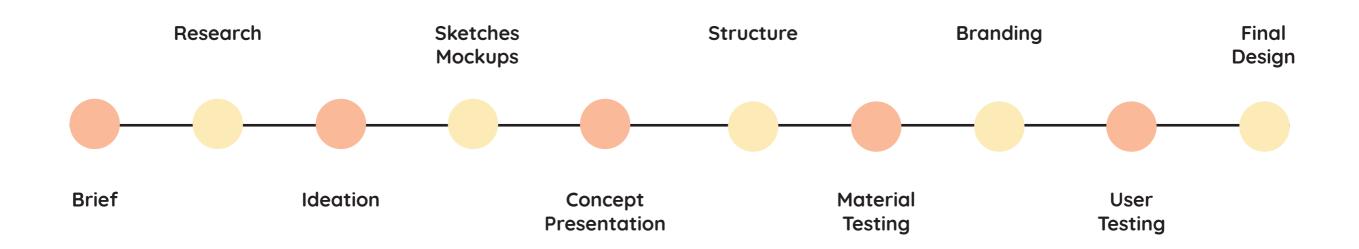
We were tasked with exploring fresh packaging application possibilities using a new Paptic material. Our goal was to showcase Paptic's distinctive features while effectively communicating the brand's commitment to sustainability.

Instead of simply replacing existing plastic packaging, the aim was to either enhance the design of the product through Paptic or create an entirely new packaging concept. Additionally, the challenge involved developing a mono material packaging solution which would be industrially producible.

What if Paptic didn't just replace but would be better than the original?



# 5 Process timeline



## Research

### 6.1 Primary

### **Field**

To initiate our packaging design process, we undertook a comprehensive search for a product that could benefit from Paptic packaging. We visited various stores, where we observed the packaging approaches across different categories. Notably, our focus was on non-barrier applications, as our objective was to exclusively utilize Paptic in our packaging.

Our findings revealed that products in the **stationery and kids' toy** categories often suffer from excessive packaging, comprising both unnecessary plastic and fiber-based materials.

This not only squanders valuable resources but also complicates recycling for end consumers.







Another sector with a significant plastic packaging footprint is hygiene products. Despite directives targeting single-use plastic in items like cotton buds, their packaging remains predominantly plastic-heavy and challenging to recycle.

While some actions have been made, products like diapers, menstrual pads, and cotton rounds still predominantly use PE films, although a few companies have introduced paper packaging.













In addition to primary packaging, our investigation extended to secondary packaging options. Flexible plastics such as shrink films and stretch films are often used for grouping products or stabilizing pallets during transportation.



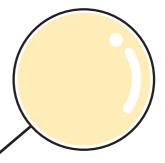
These applications do not necessarily require the barrier properties of plastics, providing an opportunity for more sustainable, non-plastic alternatives.

### **Trends**

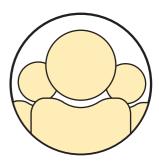
To better grasp current and upcoming trends in packaging, we looked into WGSN trend reports. Our findings revealed that sustainability and accessibility are driving factors in packaging design.



In packaging design, sustainability goes beyond material choices—it involves minimizing overall packaging material usage. The trend leans towards using just enough material for adequate product protection without unnecessary excess.



Companies are eager to communicate their sustainability efforts to consumers, opting for fiber-based packaging materials when possible. Consumers are also increasingly willing to pay a premium for sustainable packaging.



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While growing consumer demand propels companies to rethink their packaging, regulatory changes are hastening the pace of these transformations. The European Commission's updates to the packaging and packaging waste directive, along with new recycling targets, are pushing for faster changes. Certain packaging types, such as shrink films in grouped can packaging and plastic bags for small quantities of fruits and vegetables, are slated to be forbidden in the future (Ragonnaud, 2023).

Consumer-centered design, taking usability and accessibility into account, is becoming a key driver in packaging design.

Based on our field research, Companies are already we decided to focus on developing new packaging solutions for six-packs of cans cardboard-based solutions. and hygiene products like We're particularly interested menstrual pads and q-tips. The market value for multipack could offer a lightweight yet

carriers is currently at 1.55 billion USD, with an estimated annual growth of 4.9% (VerifiedMarketResearch, 2021).

responding to upcoming regulations by introducing new in exploring whether Paptic strong option in this market.

In the hygiene sector, the Companies in this sector excessive use of plastic in are responding to consumer packaging is being addressed. demands for more sustaina-Due to the easy availability of ble packaging by introducing personal care goods in su- eco-friendly options. Paptic's permarkets, pharmacies, and soft and silent properties could convenience stores, coupled bring additional value to these with the heightened focus on products, providing a sense hygiene due to COVID, this of intimacy, cleanliness, and market is expected to reach comfort. 720 billion USD by 2030 (FortuneBusinessInsights, 2023).

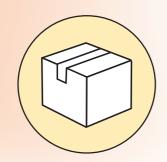
### 6.2 Secondary

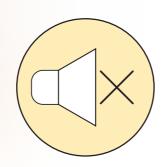
### Survey

In collaboration with Paptic we decided to explore the possibilities for the shrink film replacement and the possibilities in hygiene pad packaging. In order to better understand the users opinion on the current packaging we decided to create two surveys. One on the pad packaging and one on the shrink film packaging. Below we will share the most important outcomes of both surveys.



### **Hygiene Pads Survey Results**





88%

81%

66%

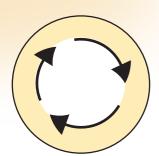
want minimal packaging

keep pads in original package want silent material



81% want package

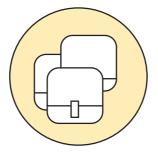
to communicate sustainability





want neutral

design



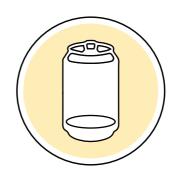
73%

51%

88%

want pads multipack

### Shrink Film Survey Results



soda - most popular can drink

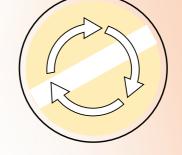
> bad grocery shopping experience

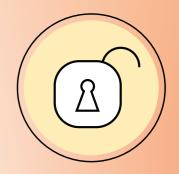
shrink film opening is problematic

negative about shrink film

user's painpoints







hard to carry

not sustainable

hard to open

want reusability

# Design Process



### **Design process**

After we received the survey responses and analyzed the results we started ideating for both the hygiene pads and the six pack can packaging. In our ideation we created both ideas that were very easy and more of a replacement of the existing packaging and more complex structures. in this chapter you will find the sketches and mood boards created. The sketches were made to create ideas for the structures of the categories. The mood boards were created to better communicate our ideas on the branding of the products.

### Applications

### Bags & pouches

—Tringa & Strena









### E-commerce Mailers

- Steena & Tringa
- collaborations
- -standard project
- Decathlon Singapore
- -stockmann

### Product packaging

- Apus





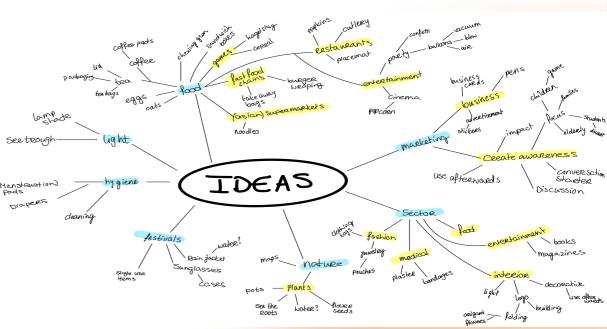


### (Dey) food packaging







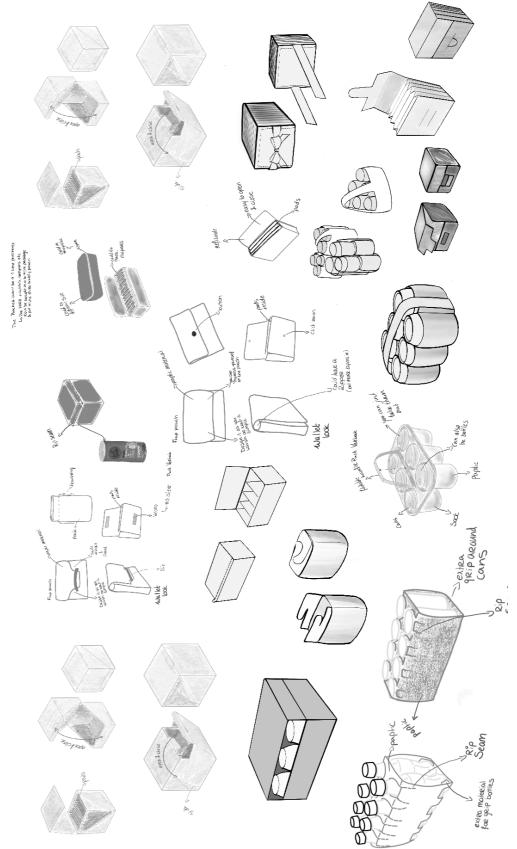


### Ideation

Due to the materials being new to us, we initiated early sketching and mockup trials in our design process. Given that we were not working within the confines of an existing brand, our focus was on refining packaging structures and exploring material possibilities and limitations. Informed by our background research and survey results, we drafted diverse ideas on paper, prioritizing attributes such as easy usage and reclosability. We also crafted mood boards and utilized Al-generated images (Microsoft Bing Image Creator) to enhance the communication of our design and branding intentions.







# Concept Design







Mock ups

To better understand the material possibilities and limitations we decided to create some physical mock-ups of some of our ideas





### SIX PACK

In the case of the six-pack can packaging, our objective was to identify packaging options that were not only easy to carry and open but also stackable. Despite our efforts, achieving a sufficiently robust package from the lightest material proved challenging. Additionally, packages made from the heavier Paptic material didn't stand out from paper carriers. Beyond the struggle to introduce a revolutionary structural design, competing with the efficiency of existing shrink film packaging lines posed an obstacle.



















**PADS** 

Our experimentation on various Paptic materials revealed that the new, lightweight, and soft material harmonized effectively with soft products, replicating the tactile experience of the goods.

Its lightweight nature avoided any significant increase in weight compared to the prevailing LDPE packaging and facilitated similar conversion processes.

Throughout our design journey, a focus on implementing reclosability led us to conclude, after several trials, that reinforcing the material with a layer of stronger Paptic material was essential.









# Concept Presentation

### **Concept Presentation**

During our concept presentation, we introduced three packaging ideas each for hygiene pads and six-packs.

### Concept 1



Optinization, minimal packaging



Multipackage, easy access

### Concept 3



High-end Reusable

### Hygiene Pad Concepts:

A straightforward modification of the current LDPE packaging, incorporating interlocking flaps for closure. An innovative concept combining various menstrual pads tailored for different stages of the menstrual cycle. A reusable, foldable packaging designed to shrink as it empties.

### Concept 1



Cost-efficient, optimization

### Concept 2

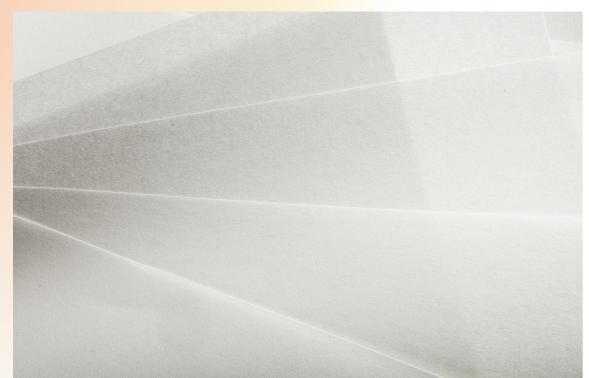


Easy access, carriability

### **Material** details

utilized Sterna. Paptic sterna ty, functionality, and environmenis a a robust Paptic material. tal impact across all concepts.

For the six-pack concepts, we The goal was to balance simplici-



### Concept 3



High-end, carriability

### **Six-Pack Concepts:**

minimalist packaging design focused solely on grouping, with little conportability. sideration for Two user-centric concepts that offer enhanced features but involve heavier material usage.

Source: Paptic.com



### 66 The physical and psychological needs of pads go well with the Paptic material.

- Markus Joutsela

### Feedback

After our presentation we re- It was also mentioned that the ceived a lot of valuable feed- category of hygiene pads is back from the teachers and easily scalable to diapers, etc. Paptic. Overall the teachers were most excited about the hygiene pads concepts as they saw the connection between the material and the product category. As said by Markus the physical and psychological needs of pads go well with the Paptic material. When we would go further with the hygiene pads we would need to pick a target group and location limit in order to make the branding and visuals appealing to one user group.

The teachers and Paptic were also enthusiastic about the six pack packaging, however they saw more limitations in this area. It would be harder to produce these packages and therefore it would become a more premium solution. The gift giving personalization was mentioned a lot. Being able to choose your own variation of beers, mocktails or kombucha was seen as a big opportunity. However, Paptic didn't want to focus on premium or high end products.

### 9.2 Limitations

tion drastically. Other than the first most simple concept. that we didn't really see the

With all the feedback in mind extra benefit of the paptic mawe had a personal feedback terial compared to the already meeting with Paptic the day used cardboard solutions. We after the presentation. Here did see this extra benefit withwe went more into details in the hygiene pads category. about our experiences and Therefore we decided to go on limitations encountered when with the hygiene pads categomaking the physical mock-ry. As Paptic wants the design ups. As we mentioned the diffi- to be easily implementable culties with the six pack pack- into already existing machinaging we realized this solution ery and keep the costs low would slow down the produc- we decided to continue with

The goal is to find a product that is the most industry applicable and not a high-end structure.

- Valtteri Pussi

# Final Concept



### Final concept

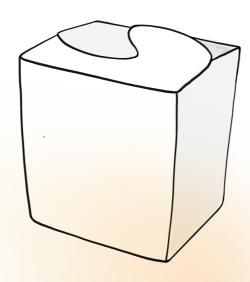
After the and a tion personal feedback session Paptic we decided continue with the simple concept of the hygiene pads. We first started analyzing the already created mockup. After that we created the structure layout on paper. Finally we made the final structure layout in ArtiosCAD software. Building upon our concept presentation and aligning with Paptic's vision, we advanced

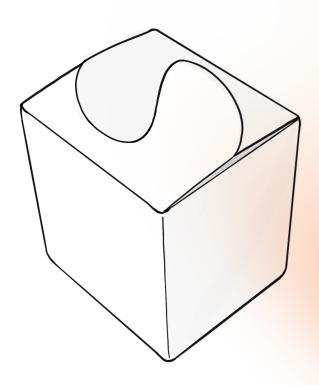
presentapersonal the packaging for menstrual pads. At this stage, we had a preliminary mockup and a clear outline of the packaging structure, incorporating specific functionalities. In addition to utilizing Paptic for the secondary packaging of pads, we aimed to integrate this material into the individual pad envelopes. Vanced our design process to focus on the packaging for menstrual pads.



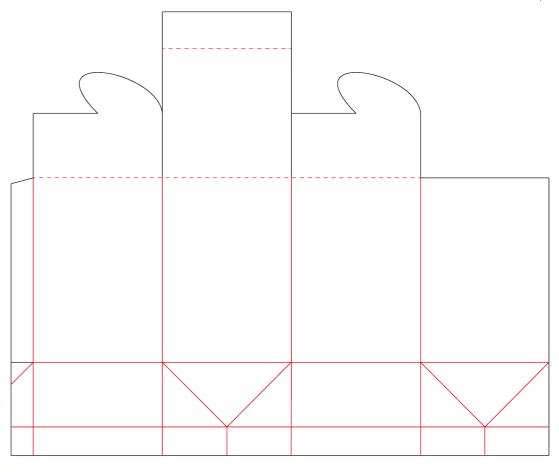
### 10.1 Structure

The current packaging for pads consists of a straightforward LDPE pouch with a perforation line for easy opening. Recognizing the importance of user convenience, we have emphasized both easy opening and reclosing features. To enhance the reclosing properties, we've incorporated interlocking parts at the top of the packaging, ensuring a secure closure post-purchase.

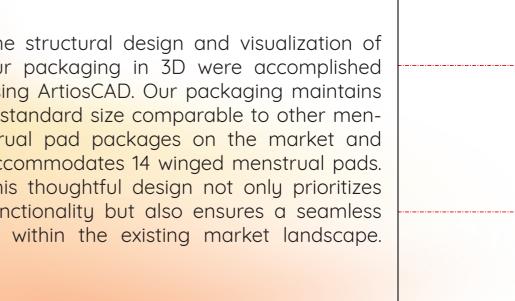




To assure consumers of the packaging's integrity and product safety, these interlocking components remain concealed until the consumer opens the packaging. Our design includes a top closure panel with perforations and a glue flap, while the reclosable elements function as dust flaps until the seal is broken.



The structural design and visualization of our packaging in 3D were accomplished using ArtiosCAD. Our packaging maintains a standard size comparable to other menstrual pad packages on the market and accommodates 14 winged menstrual pads. This thoughtful design not only prioritizes functionality but also ensures a seamless fit within the existing market landscape.



### 10.2 Branding

### Logo

The logo is a wordmark derived from the rounded and geometric font Chennai. We wanted the logo to evoke the feelings of calmness, comfort, and softness. We achieved this by opening up the letters and expanding the space between them, allowing the letters to have room to breathe.

### serene





The base unit for logo construction in the letter "e". The wordmark is one base unit high. The slogan is positioned one third of the base unit below the wordmark and measures the same in height.

### **Logo Construction**

To achieve a more geometric appearance, we narrowed the letter 's,' opened up the 'e,' and adjusted the kerning to impart a sense of calm and freedom.



Opening up the letter "e".



Curling the ends of the letter "s" and making it more narrow.



The end result.

### 10.3 Brand guide

### serene

### Color

To enhance the overall visual appeal and align with the sensory characteristics of the material, we opted for a pastel color palette featuring neutral beige, yellow, and orange hues. These soft, comfortable, and calming colors contribute to a visually pleasing packaging experience.

# serene

serene















CMYK: 0, 32, 36, 0 CMYK: 31, 12, 0, 0

### **Typography**

### Primary

For the main font, we aimed to capture a sense of softness, safety, and comfort. We all liked rounded fonts the most for this purpose, and Chennai stood out because of its nicely rounded letters without stems. We made some small adjustments to the actual logotype in the end.

### Secondary

For the body text, we selected the rounded font Quicksand, which imparts a feeling of softness. This choice also considered the ink bleeding in the printing process, making the rounded font preferable as sharp edges tend to get softened during printing.

### Chennai

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Uu Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789 .,!?-\_;:()/&%\$#"\*<>

### Montserrat

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Uu Rr Ss Tt Uu Vv Ww Xx Yy Zz 0123456789 .,!?-\_;:()/&%\$#"\*<>

Regular ABCDEFGHIJKLMNOP

SemiBold ABCDEFGHIJKLMNOP

Bold ABCDEFGHIJKLMNOP

**Brand Guidelines** 

Medium
ABCDEFGHIJKLMNOP

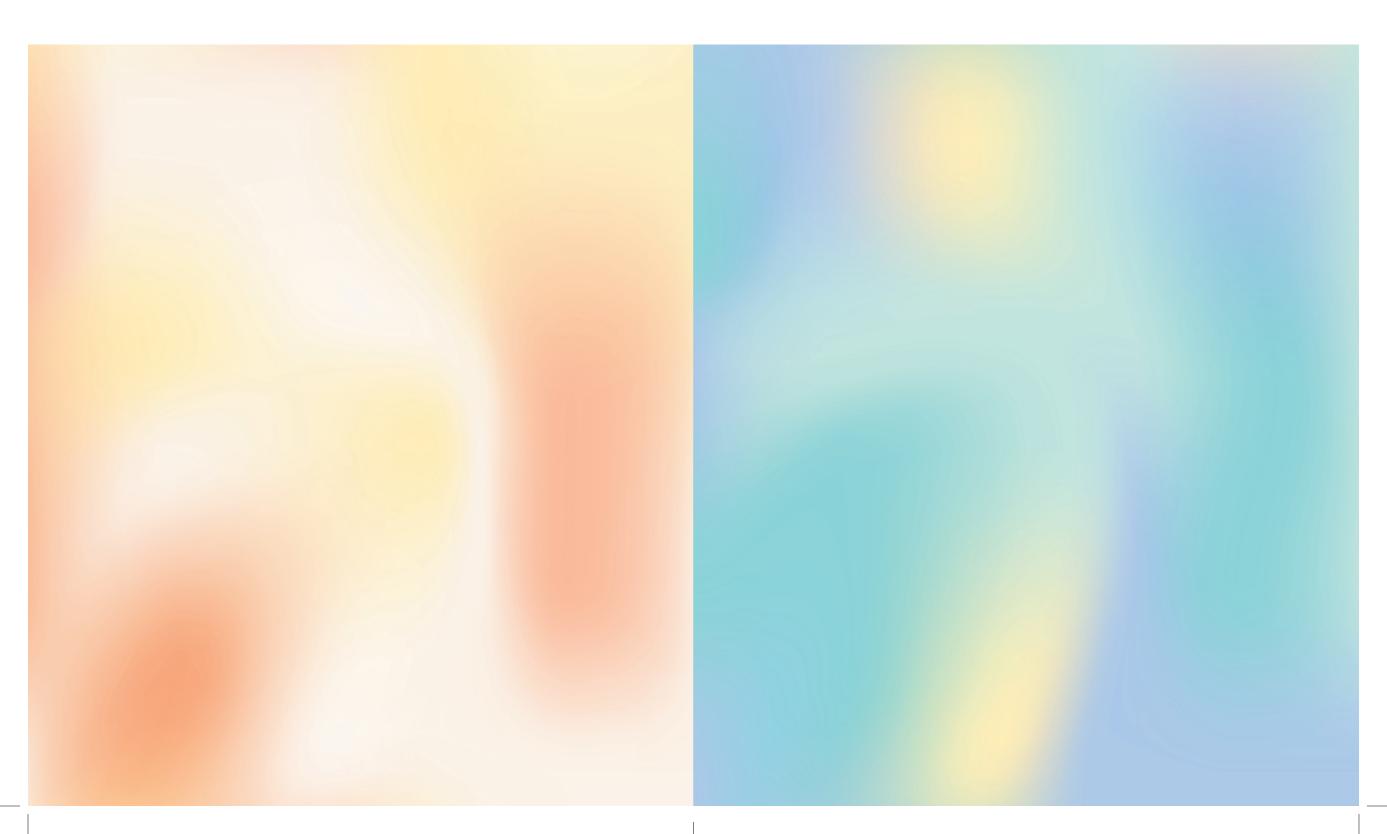


**Gradients** 

Used in day pad packaging

**Gradients** 

Used in night pad packaging

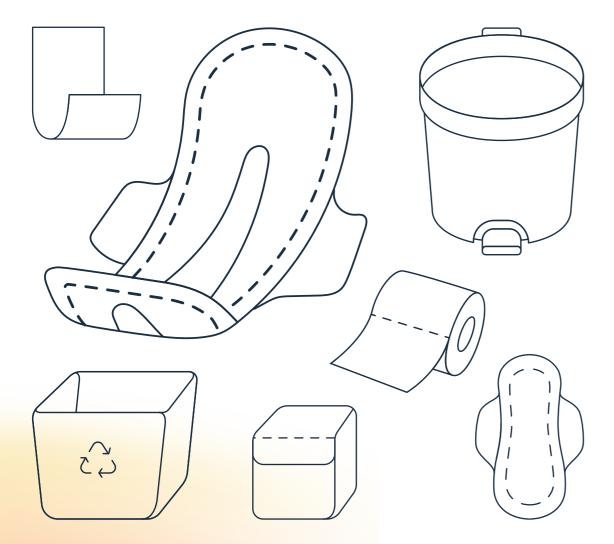


### **Graphics**

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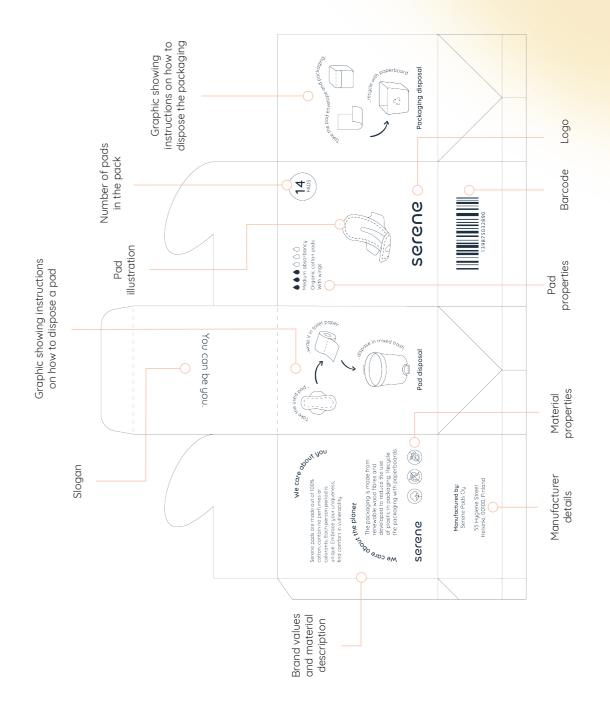
For graphics, we opted for convey illustrations outlined with a ciently without having the thin stroke, in order for us- user to rely solely on text. ers to understand the information quickly. Emphasizing user-friendly presentation, we utilized infographics to

information

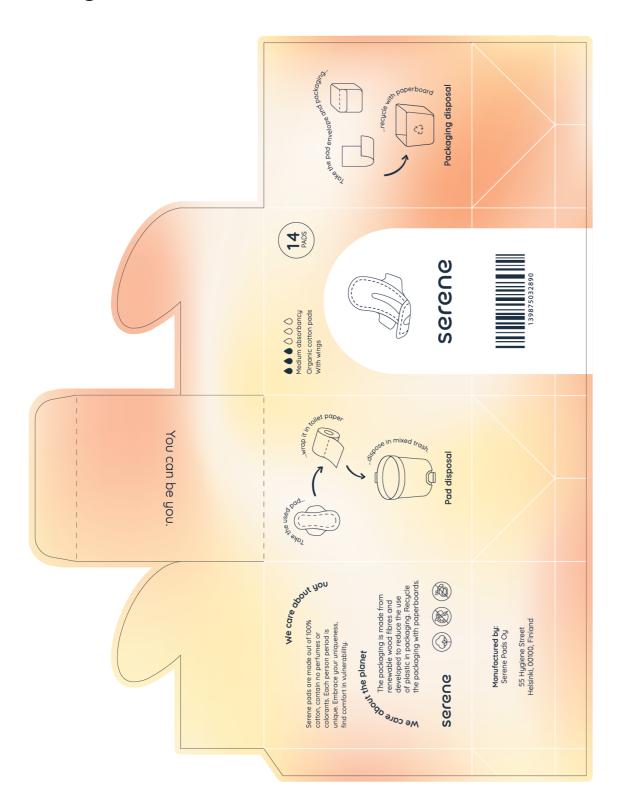


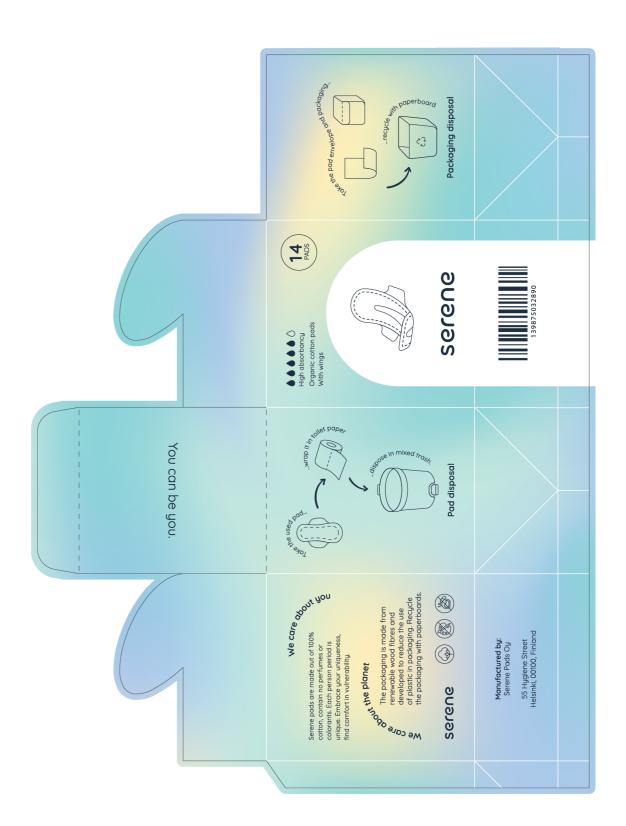
### Layout and content

For graphics, we opted for illustrations outlined with a thin stroke, in order for users to understand the information quickly.



### Design colors





# Material Testing

### 11.1 Printing

Various Paptic materials have undergone testing with different printers, though the specific material we were working with had not been previously examined. Our curiosity extended beyond the material's printing behavior to its color rendition and text display.

Given its lightweight (40 gsm) and slight stretchiness in one direction, it encountered issues in the printer rolls, resulting in jams that required manual removal.



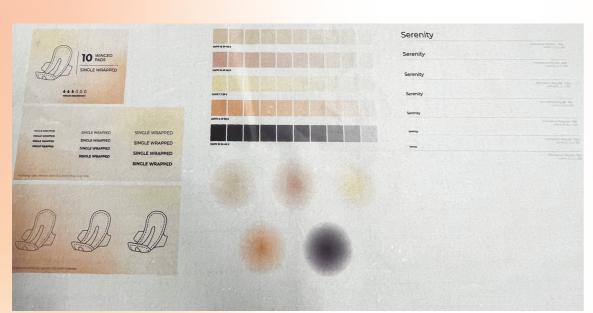


11 Material testing

Consequently, we tested the material on a sublimation printer, which demonstrated excellent color reproduction. However, when experimenting with diverse font sizes and illustrations, we observed color bleeding, causing smaller text and EAN codes to blend toaether and become challenaing to read. Additionally, the material exhibited a slight yellowing around the edges, demanding consideration when positioning our design on Paptic. The material's transparency rules out double-sided printing as an option, and we must be mindful that texts and patterns on our pad sleeves may show through the secondary packaging.



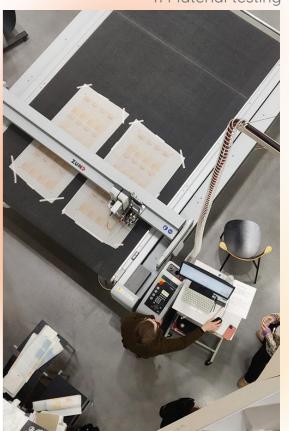
Due to the materials properties, from an industrial perspective, sublimation printing proves inefficient for this type of packaging on a larger scale. Alternatively, a flatbed UV printer might be more suitable for industrial-level production.



### 11.2 Cutting

To cut our design, we employed the Zünd digital cutter. Given the lightweight nature of the material, it is necessary to tape it onto the table to prevent any movement during the cutting process.

It is worth noting that despite having creases marked on our template, the creases created by the Zünd did not prominently appear, indicating that this material is most effective for applications that do not demand clean folds.





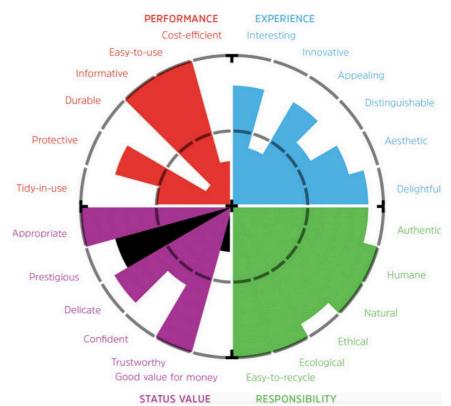




# User Testing

We conducted user testing in collaboration with Sense n Insight using Value Toolkit® interviews, where participants were asked to select from pairs of adjectives that best described the packaging. To establish a baseline, we introduced participants to the Always brand and its packaging before evaluating our own design. We began by gauging their willingness to pay for the product upon first impression and again after a closer examination of the packaging. Given the unique haptic properties of our materials compared to other products in the market, it was crucial to allow participants the opportunity to touch the packaging.

Following the adjective pairs, we presented open-ended questions to gather qualitative insights. Participants were asked about their overall impression of the packaging, what it communicated to them, aspects they liked, and any suggestions for improvement. Additionally, we inquired about their understanding of recycling instructions and whether they desired extra information on the packaging.



# Final Design





### 13 Final design













# Future Development



### Future development

### Future possibilities and limitations

In addition to the steadily The European Union's Singrowing market for feminine ale-Use Plastics directive hygiene products, this type of has addressed the issue of packaging holds promise for plastic-containing cotton bud expansion into other sectors sticks, prohibiting their placewithin the hygiene industry. ment on the market. Howev-

Diapers are typically packaged aisle at grocery stores rein LDPE, similar to menstru- veals that cotton bud sticks al pads. A WGSN trend report and cotton buds are still on millennial parents (WGSN, predominantly packaged in 2023) indicates that concerns hard-to-recycle plastic. This about climate change play a market stands to benefit sigpivotal role in their purchasing nificantly from the adoption decisions. The current diaper of more sustainable packagpackaging poses a suffoca- ing materials that also replition risk to babies and children, cate the haptic experience of and replacing it with Paptic the product inside. could provide a safer alternative. Paptic materials, known for being soft, recyclable, and child-safe, offer a viable option. The baby diaper market is valued at 53.04 billion USD and is projected to grow by 6.65% annually (Statista, 2023).

er, a stroll down the hygiene

### Conclusion

## Conclusion

Our brief was to explore fresh With Serene we were able packaging application pos- to showcase Paptic's unique sibilities using a new Paptic features uplifting the current material. It was our goal to pad packaging design and showcase Paptic's distinc- user experience. Being able tive features while effectively to make a silent pad opening communicating the brand's experience can become a commitment to sustainabili- real game changer. Feeling ty. Instead of simply replacing comfortable and safe are existing plastic packaging, the the most important feelings aim was to either enhance the when you are on your period. design of the product through With Serene we enhance Paptic or create an entirely these feelings making new packaging concept. Addi- sure that You can be You! tionally, the challenge involved developing a mono material packaging solution which would be industrially producible.

Pack-Age provided me with a fresh perspective on packaging. As someone with a background in food science, engaging in a design process with a novel material for non-food packaging was truly eye-opening. Stepping outside my comfort zone allowed me to learn extensively, not only from a diverse group of professionals in branding, package design, material sciences, and package testing but also from my teammates. Each team member contributed their unique expertise, knowledge, and personal interests to the project. This experience has been invaluable, broadening my understanding and strengthening my will to continue working with packaging in the future. I am grateful for the opportunity to be a part of such a collaborative and enlightening project.

### -Viveka Natri

The Pack-Age minor was a unique experience and very different than the studies from my home university. The minor allowed me to take a deep dive into the Finnish packaging industry. Being able to visit print houses and work with professionals was very exciting. The teamwork with teammates from various different study and cultural backgrounds made it very interesting. Learn from each other and use each other's strengths to make the best out of this project. I am very proud of our end product and the process we have been through. I am curious to see how this project can evolve in the future.

### Puck Verbeek

Pack-Age took my design journey to a whole new level. From better understanding the psychology of packaging to getting hands-on with the creative process, every moment was a learning adventure. The supportive environment of my team made it an amazing experience. I like that the course had the perfect balance between theory and practical tasks. Grateful for the skills gained, people I met and the inspiring journey it offered.

### -Kristina Vasileva

My favorite thing about the package minor was our fantastic team. I learned much from everyone's different disciplines, backgrounds, and nationalities. We are such a diverse group with all the same goals. I loved working together toward something we are so passionate about. Being able to talk about our lives and our work taught me so much.

I think these courses have been my favorite so far in my three years here at Aalto, as it was so great to work so closely with real-life clients and express myself in the field, I got a lot of real-life experience from this course, and I think it gave me the courage to work in the field with more confidence.

### -Lilo Molin

I am thrilled to have had the chance to participate in the Pack-Age minor. The courses allowed me to meet and work in a team of very talented people and learn from and with them. During the course we got to listen to talks from industry professionals and get feedback on our projects, which I thought was very useful and inspiring. It was also an honor to work with a real client, Paptic, and to be one of the first people to experiment with their material. I am delighted to have had the opportunity to contribute as a graphic designer in the packaging project and assist in the development of a fictional brand. Additionally, the chance to work with equipment I haven't used before, such as the sublimation printer, Zund cutter, and the photography studio, provided valuable experiences that I believe will be beneficial for future projects.

### -Vita Potočnik

comments

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