

PRODUCT SHEET

NUVI

Rethinking Things

“ NUVI stands for nouvelle vie —
a new way of living.”

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DISCLAIMER

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MISSION & VISION

MISSION

Develop sustainable,
NEXT-GEN PERFORMANCE MATERIALS
rooted in
nature's intrinsic design.

VISION

Bring
INNOVATIVE MATERIAL SOLUTIONS
to the world while making it
a better place.

Based in Germany, **NUVI** is a material innovator specializing in scalable, plastic-free and 100% bio-based coated textiles. These materials are produced roll-to-roll and made exclusively from regional and abundantly available plants and minerals.

Each collection distinguishes itself by reflecting the unadulterated look and feel of its ingredients, including color, touch and scent. Rather than emulate conventional materials, **NUVI** strives to capture the hearts and minds of designers with fresh possibilities and countless stories to tell.



PILLARS

WHAT WE STAND FOR

Earth Driven

- + 100% bio-based
- + Plastic-free (no PU or PVC)
- + Vegan & cruelty-free
- + EU-sourced raw materials
- + Winner of the German Award for Sustainability Projects 2023

Natural Design

- + Unadulterated colors & scents
- + Unique look & feel
- + Potent narrative potential
- + Customizable color, embossing and backing material

Manufacturing Might

- + Made in Germany
- + Roll-to-roll production
- + TRL 7
- + Direct & indirect coating
- + Manufacturing partners with global production sites

Innovation Inspired

- + Strong R&D team backed by senior technology advisors
- + Collaboration with European research institutes & universities
- + More than 25 patent applications worldwide, 6 currently granted



INTRODUCING

NUVI next-gen materials
FROM the earth
OF the earth
FOR the earth

MATERIAL

CRETA

Vibrant VERSATILITY

An innovative material with a soft, supple surface texture made from Champagne chalk.

Characterized by its luminosity, **CRETA** can be dyed in a striking range of colors.



SPECIFICATIONS

COLORS

cinder // off-white // espresso //
cappuccino // canary // straw // pink

EMBOSSING

various

BACKING

65% linen, 35% Lenzing™ Ecovero™

THICKNESS

0.7mm

GRAMMAGE

950 g/sqm

INGREDIENTS

bio-polymer,
bio-plasticizer,
chalk, dye

MARMORA

Elegance EVOLVED

An unadulterated material with a cool surface made from marble.

Available in undyed natural shades, each sourced from a unique variety of stone.



SPECIFICATIONS

COLORS

carrara (undyed)

THICKNESS

0.7mm

EMBOSSING

polished

GRAMMAGE

950 g/sqm

BACKING

65% linen, 35% Lenzing™ Ecovero™
100% organic cotton

INGREDIENTS

bio-polymer,
bio-plasticizer,
marble



UPCOMING MATERIAL

TABAK

Heritage RE-IMAGINED

A noble material with a warm surface structure made from upcycled Virginia tobacco leaves.

Each color comes naturally from specific plant strains and is not dyed.



SPECIFICATIONS

COLORS

maduro

EMBOSSING

none

BACKING

65% linen, 35% Lenzing™ Ecovero™
100% organic cotton



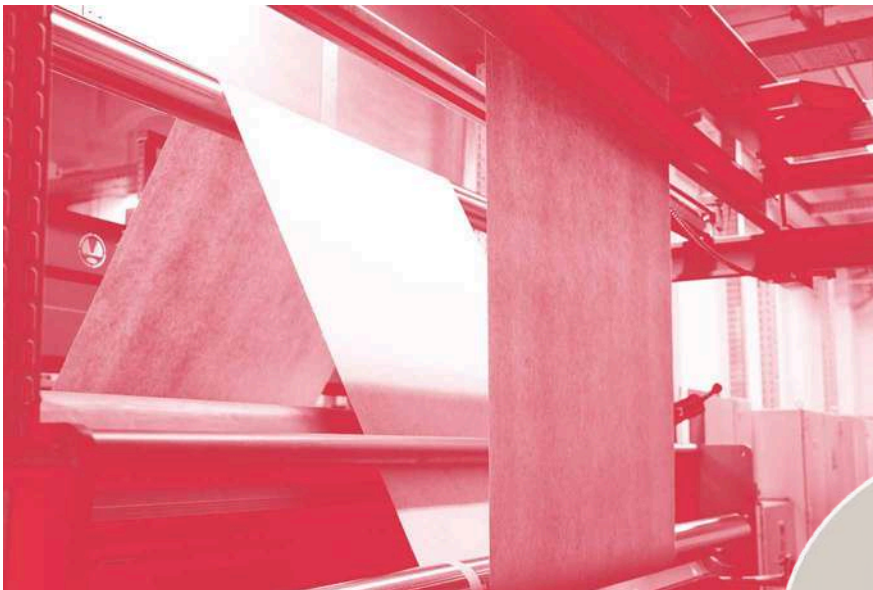
PRODUCTION PROCESS

HOW WE ROLL

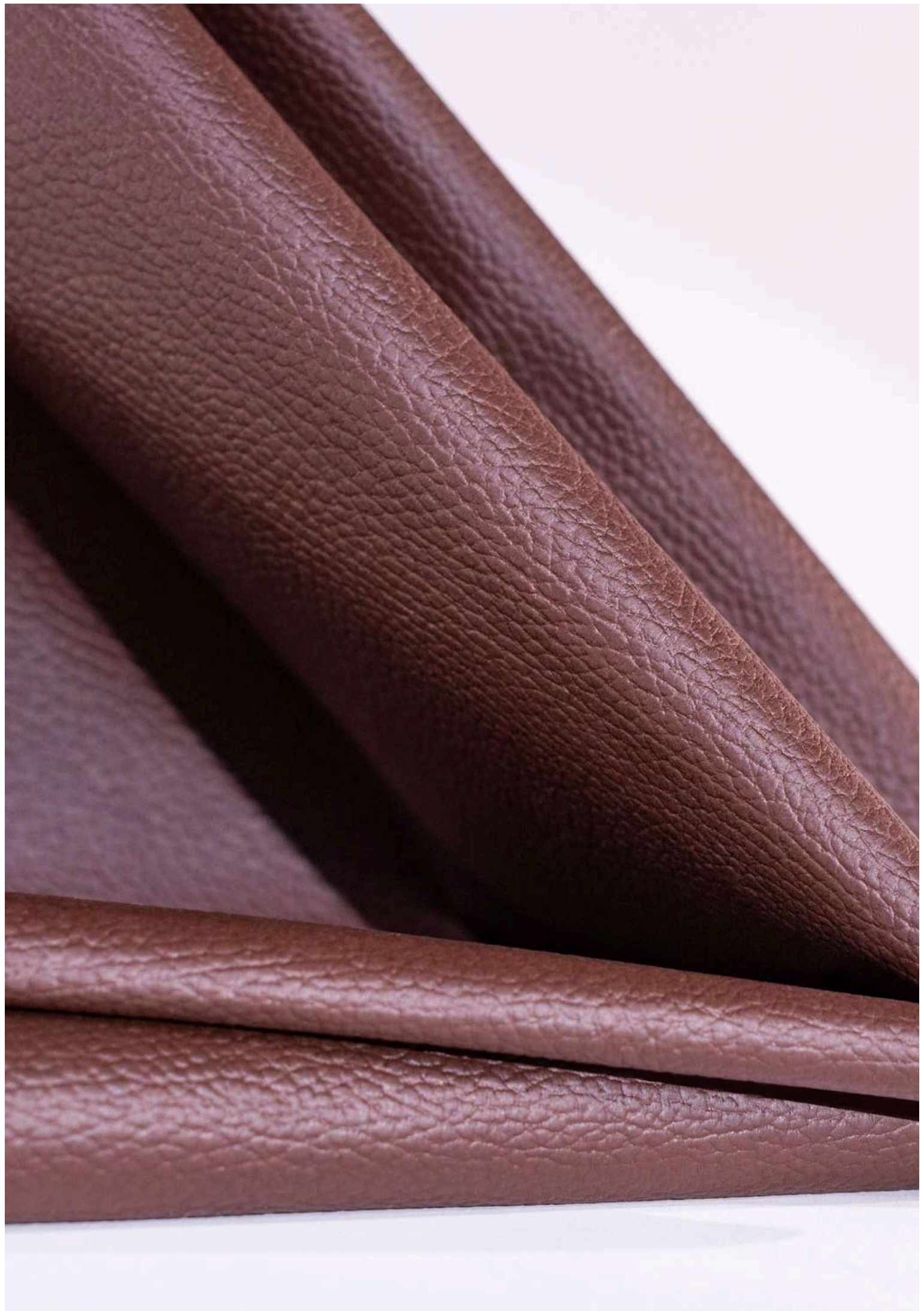
NUVI's roll-to-roll production drastically reduces material waste and energy consumption compared to conventional batch methods. Beyond efficiency, our German-rooted approach aligns with global sustainable manufacturing trends.

Our current manufacturing ally, a family-owned German powerhouse generating approximately 500 million EUR in yearly revenue, boasts a global workforce of 4,000. With divisions spanning textiles, automotive, electronics, and environmental technology, they hold certifications including DIN EN ISO 9001:2015, DIN EN 14001:2015, DIN EN 50001:2011, and EU VO 10/2011 and FDA compliance for food and pharmaceutical industries.

NUVI is also an active member of IVGT, Germany's largest textile association. Comprising around 170 member companies engaged in textile raw materials, finishing, yarns, fabrics, and technical textiles, IVGT is an advocate for the sector's interests. Representing over 60% of the German textile industry, with a combined business volume exceeding 6.6 billion EUR, our collaboration with IVGT underscores our commitment to industry excellence and sustainable practices.



Click here
to view our
**roll-to-roll
production
video**

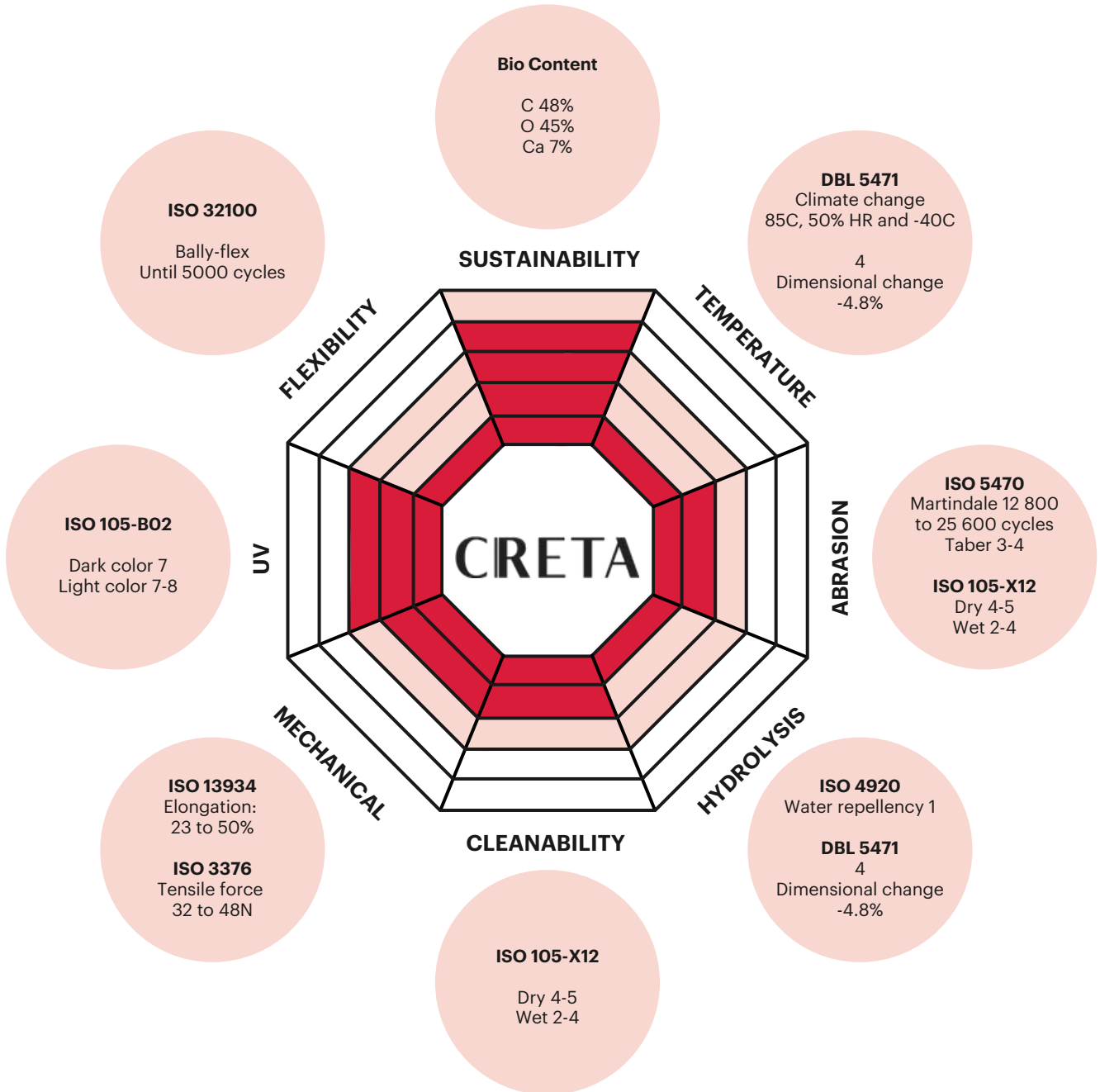


PERFORMANCE

Check out our latest test results* straight from independent labs.

The test results graphic provides a detailed look at the performance of our **CRETA** material across diverse conditions.

* Shown performance test results are from 2023. Updated test results will be available soon.



Each property, including UV resistance, flexibility, sustainability, temperature performance (cold tolerance/heat resistance), abrasion resistance, hydrolysis resistance, cleaning durability, and mechanical strength, is rated on a scale of 1 to 5 in the graphic. A rating of 1 indicates adequacy, while 5 signifies the highest level of performance. The graphic's innermost row corresponds to a rating of 1, and the outermost row to a rating of 5.

- Dark red represents **CRETA's** current performance.
- Light red indicates our performance targets.
- Blank sections represent optional areas for improvement, allowing us to tailor enhancements for specific projects and applications.

GROUP DIAGRAM	TEST	STANDARD	RESULT
Abrasion	Abrasion resistance - Martindale	DIN EN ISO 5470-2:2021-11	between 12800 and 25600 revolutions
Abrasion	Abrasion resistance - Taber	DIN EN ISO 5470-1:2017-04	3-4
Cleanability and Abrasion	Colour fastness to rubbing	DIN EN ISO 105-X12	dry rubbing cloth: 4-5 rubbing track: 4-5 wet (>95%) rubbing cloth: 2 rubbing track: 4
Flexibility	Balley Flex (Dauerbiegeprüfung) Coated Textiles	DIN EN ISO 32100:2019-02	between 1000 and 5000 cycles
Hydrolysis	Water repellency	DIN EN ISO 4920	1
Hydrolysis	Water vapour permeability	DIN EN 13515:2002-03	cracks
Mechanical	Elongation	DIN EN ISO 13934-1	LW: 23% and CW: 50%
Mechanical	Maximum tensile elongation	DIN EN ISO 3376	LW: 25.4% and CW: 58.5%
Mechanical	Maximum tensile force	DIN EN ISO 3376	LW: 48N and CW: 32N
Mechanical	Seam strength	DIN EN ISO 13935-1	210 N
Mechanical	Tear force	DIN EN 1875-3:2023-04	LW: 27.4N and CW: 19.8N
Mechanical	Tear resistance	DIN EN ISO 3377-1	LW: 8N and CW: 11N
Mechanical	Tensile properties	DIN EN ISO 13934-1	W: 222N and CW: 145N
Mechanical	Tensile strength	DIN EN ISO 3376	LW: 2.7N and CW: 1.9N
Sustainability	Biocontent	EDX	48% C; 45% O and 7% Ca
Temperature	Heat resistance 14d / 120C	DIN EN ISO 17228	dark color: 4 dimensional change: -4.3% light color: 1 dimensional change: -4.7%
Temperature and Hydrolysis	Climate Change Test 85 C, 50% humidity and -40C	DBL 5471	4 dimensional change: -4.8
UV	Light Fastness	DIN EN ISO 105-B02	Dark and light color: 7-8



SUSTAINABILITY

Sustainability is the core of our innovative spirit. As such, we've developed a holistic framework to measure our sustainability across the entire lifecycle of our materials, from raw material extraction, to transport to end of life. This comprehensive approach guides our actions and gives us a clear roadmap of how we will improve the sustainability of each material in the future.

BIO-CONTENT/ INGREDIENTS

NUVI materials are 100% bio-based and plastic-free. Our textile coating formula contains a biopolymer, bioadditive, a plant or mineral (depending on the collection) and in some cases dye.

TESTED ATOMS

48% Carbon, 45% Oxygen, 7% Calcium.

BACKING MATERIAL

Our textile backing materials are currently made from either a flax-viscose blend (65% linen, 35% Lenzing™ Ecovero™), or 100% cotton (depending on the SKU). The European flax is undyed, and responsibly sourced from a German supplier while our cotton is certified organic.

WASTE STREAM & BYPRODUCTS

Thanks to the flexibility of our textile coating formulations we are able to integrate by-products and waste streams when desired.

IMPACT ASSESSMENT

Our preliminary CO2 footprint assessment at the lab scale is just the beginning. Expect a comprehensive impact assessment of our full scale industrial production by the end of 2025.

TOXICITY

NUVI is toxin-free, using only natural raw materials. Formal testing of **CRETA's** material health is on the agenda for 2024.

BIODEGRADABILITY

NUVI is set to explore home compostability and biodegradability certifications across various environments and time frames in 2024.

RECYCLABILITY

Lab results are promising, signaling a potential future for **NUVI** materials in recycling. Stay tuned as we further explore this avenue.

SUPPLIER TRANSPARENCY

Our home in Germany allows us to combine German engineering with exclusively EU-sourced ingredients for a local and transparent supply chain.

VEGAN

Animal-friendly and cruelty-free, our material has no animal-derived components. Certification as a vegan-friendly product is in our sights for 2024.

UN SDG

WE SUPPORT SDG

- #9 (Industry Innovation and Infrastructure)
- #12 (Responsible Consumption & Production)
- #13 (Climate Action)
- #14 (Life below Water)
- #15 (Life on Land)

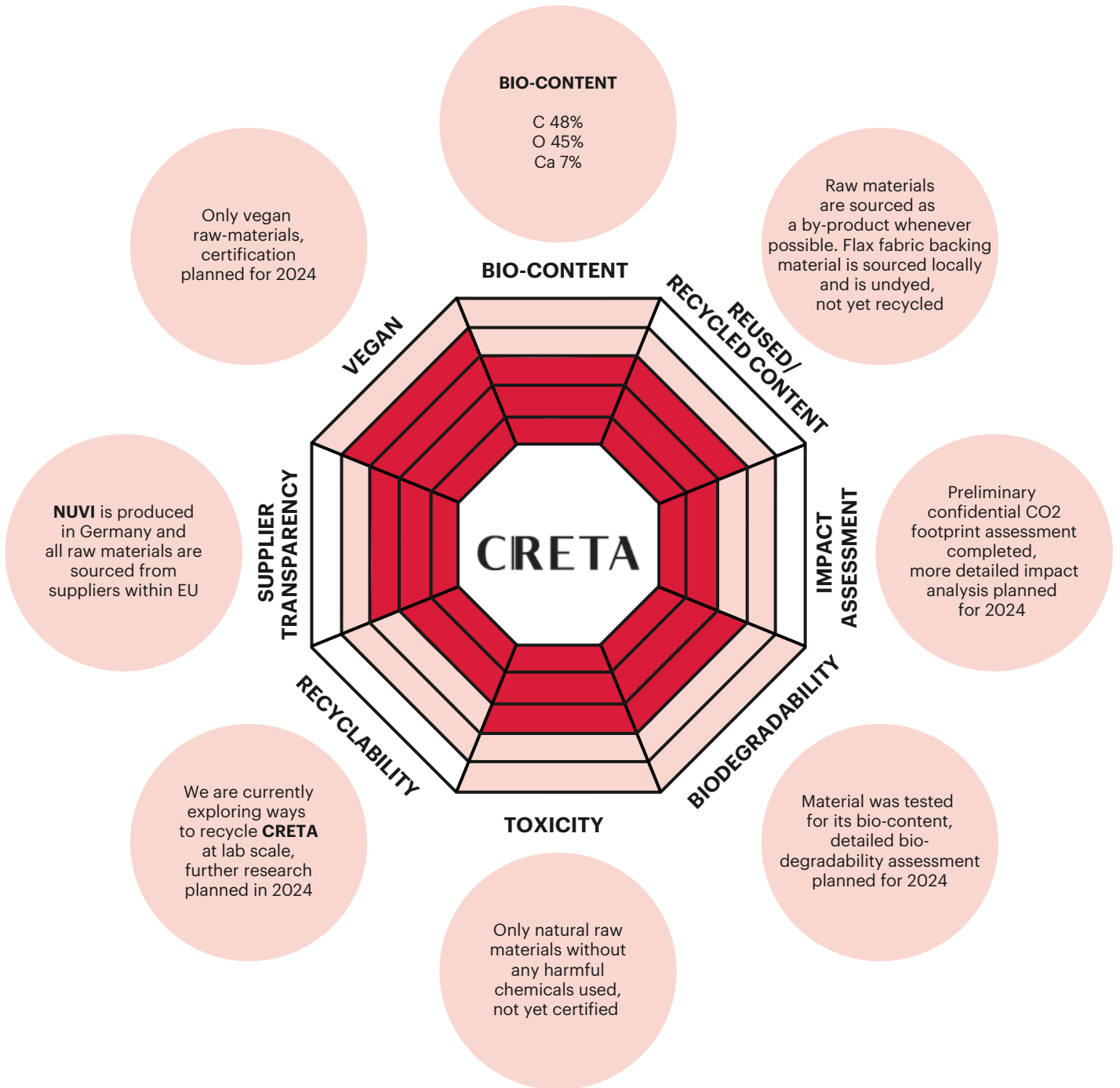
DYES

Our **MARMORA** and **TABAK** collections are undyed, reflecting the color of the raw material itself. Meanwhile, **CRETA** can be dyed in a range of light and bright color, resulting in 99% bio-content. Stay tuned for 100% bio-based pigments coming soon!

PRODUCTION

Our material is produced on existing textile coating machinery, thus limiting the need for additional infrastructure and resources.

Peek into our sustainability specs with the visual guide below:



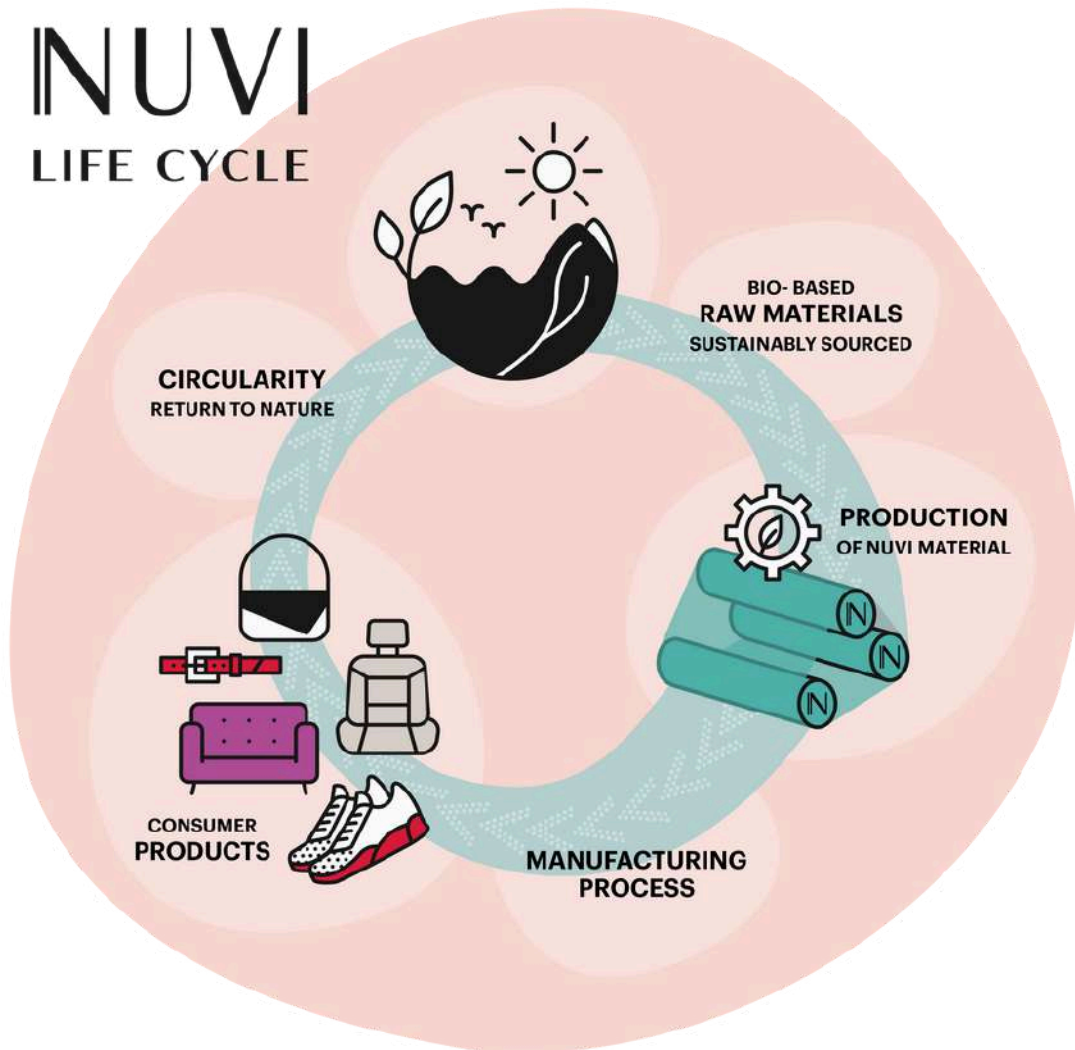
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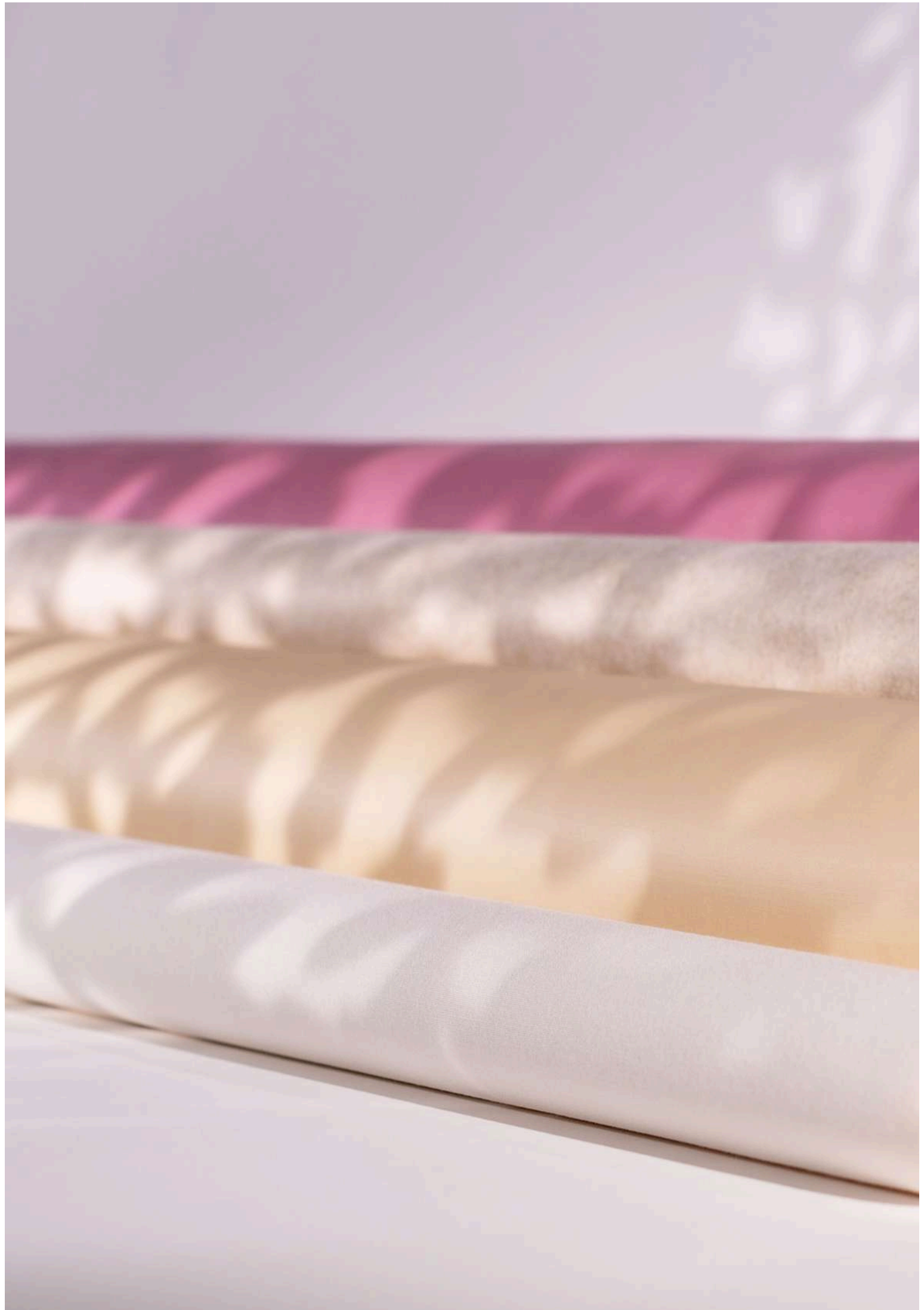
Light red represents our targets.

Blank sections represent optional areas for improvement, allowing us to tailor enhancements for specific projects and applications.

NUVI

LIFE CYCLE





CO-DEVELOPMENT PROJECTS

Co-Developments offer the opportunity to create an exclusive material that reflects your brand’s vision of the future. While we always keep the big picture in mind, we’ve broken down the process into phases to provide clarity on the journey ahead.

Phase 1 IDEATION Lab-scale

This phase focuses on design and innovation. We begin by ideating and experimenting to craft a material tailored to your brand. From leveraging waste streams to incorporating luxury ingredients, the possibilities are endless.

Projects run for a minimum of 4 months with the possibility of first-to-market advantages and/or exclusivity (conditions apply).

INCLUDED

1. A4 size materials
2. One backing material (non-woven, woven or knitted)
3. Two embossings
4. Three colors
5. Basic testing from a certified lab (abrasion, mechanical tests, flexibility, etc.)

Additional backings, embossings and colors are available at an additional cost.

ADD-ONS

Explore additional enhancements such as visual effects, printing options, translucence, and more. Each add-on requires additional time and incurs applicable costs.

FURTHER CUSTOMIZATIONS

- + Visual effects (liquids, particles)
- + 2D printing
- + Multi/Translucence
- + Double-sided surfaces
- + Semi/Perforation
- + Extra testing (hydrolysis, heat resistance, UV, biodegradability etc.)

Phase 2 CREATION Pilot-scale

In this phase, we transition to up-scaling the selected material from Phase 1. This phase allows for the creation of samples and the preparation for larger-scale production.

Projects run for 4-6 months and include one signature selected material. Additional materials may be added for an additional cost and will require an extra month to fulfill.

INCLUDED

1. Several sample variations (1sqm)
2. 1x 10 lm roll with 60cm width at the project’s end
3. Basic test results made at a certified lab (abrasion, mechanical tests, flexibility, etc.)

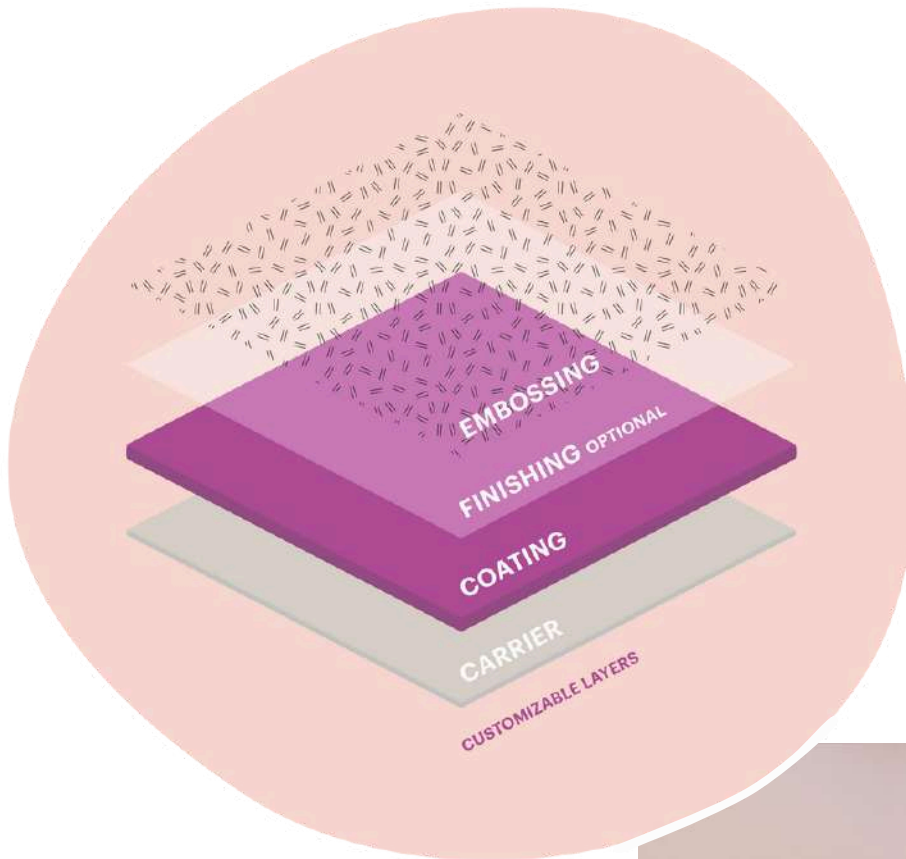
Additional backings, embossings and colors are available at an additional cost.

ADD-ONS

- + Opt for full, in-depth testing or custom embossing to further distinguish your material
- + Additional rolls of material for capsule collections

Phase 3 PRODUCTION Industrial-scale

The production phase is tailored to each project’s unique requirements and is discussed on a case-by-case basis.



LICENSING MODEL FOR CO-DEVELOPMENT PROJECTS

Before jumping into a Development project together, below is an outline of our standard legal framework as it pertains to intellectual property rights.

BACKGROUND IP – RIGHT OF USE

- + Ownership of Background IP remains unaffected by the Development Agreement.
- + Insofar as Background IP of the Licensor ("NUVI") is necessary to use the Development result, the Licensor grants the Licensee ("Development Project partner") a non-exclusive, royalty-free license to use the Background IP solely for the purpose of practicing the Development result.
- + Licensee is not allowed to use the Background IP for any other purpose without the prior written consent of the Licensor.

FOREGROUND IP – IP RIGHTS DEVELOPMENT RESULTS

- + Ownership of Foreground IP based on the development result is awarded exclusively to the Licensor.
- + The Licensor grants the Licensee a non-exclusive, royalty-free license to use the Foreground IP solely for the purpose of practicing the Development result.
- + Licensee is not allowed to use the Foreground IP for any other purpose without the prior written consent of the Licensor.
- + The Licensor undertakes to offer the Licensee an agreement which includes an obligation by the Licensor not to grant any further licenses for the Foreground IP to a third party which is a competitor in the Licensee's specific industry sector, upon terms and conditions to be agreed between the parties with respect to commercialization. The licensor undertakes to make this offer within six months after the end of the Development project.



INSTRUCTION MANUAL

Although it may resemble conventional materials, **NUVI** is a new material and should be treated as such. As designers and craftspeople, we invite you to join us in rethinking the way we approach these materials.

This guide offers practical advice based on our accumulated experience, aimed at helping you avoid common challenges when working with **NUVI**. While this manual is a continuous work in progress we hope it will serve as a valuable resource in creating beautiful, functional prototypes tailored to the unique properties of our innovative materials. Your feedback is always welcome as we continue to evolve together.

SEWING & MACHINERY

NUVI material is sewable with standard sewing machines, behaving more like a textile than animal leather. Optimize thread tension for best results. For added strength, sew it alongside linings or reinforcements.

NEEDLES

Round Needle

Achieve perfection with standard hand or machine needles, using round needles for best results. Stick to typical stitch lengths, 7 or 8 per inch.

Spear Needle

Skip the spear needle; it's unnecessary and compromises seam strength.

THREAD

NUVI works best with regular sewing threads (polyester, cotton, linen, etc.). Opt for thinner threads if you desire. Natural threads like cotton or tencel complement the material's character.

GLUING GUIDELINES

Solvent-based Glue

Choose a high-viscosity glue for optimal adhesion. **NUVI's** backing material absorbs water quickly, so applying even pressure is important to activate the adhesive fully.

Water-based Glue

Ideal for low-pressure areas, but be patient – it has a longer drying time and lower adhesion.

EDGE PAINTING

Standard edge paints pair seamlessly with **NUVI**. Start with a primer/filler layer to smooth any irregularities. For top-notch results, layer multiple coats, ensuring you fill in between any potential unevenness.

PRECISION CUTTING

Easily cut with scissors or knives.

HEAT HANDLING

Minor folds? Smooth them out with an iron at 80 degrees Celsius, but prolonged heat is not recommended. Avoid direct contact between the iron and material by using an intermediary layer.

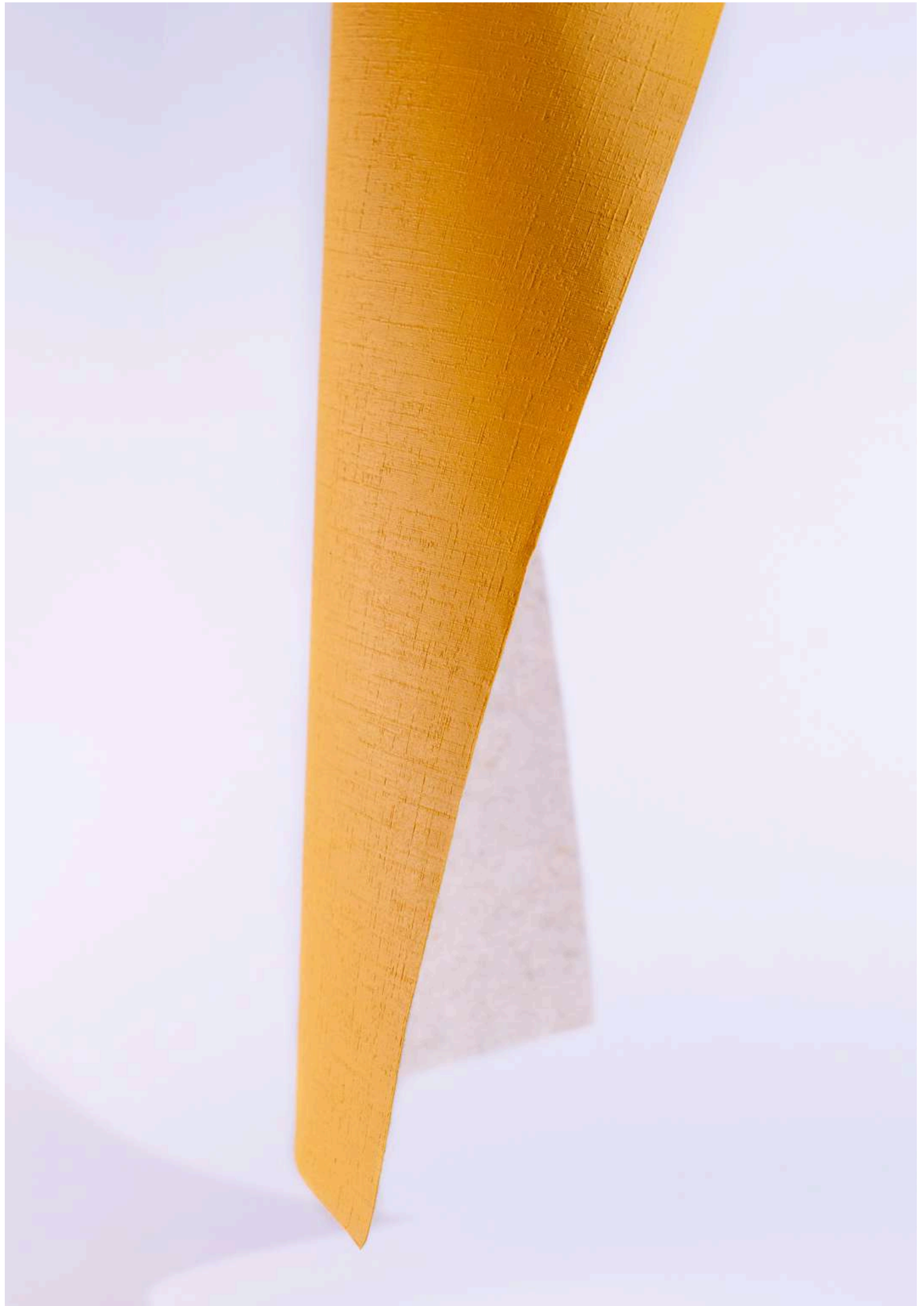
FINISHING TOUCHES

Skiving

Possible with a stone transport roller for both top and bottom layers, but note it decreases overall strength.

Splitting

NUVI is not suitable for leather-splitting machines.



Get to know OUR TEAM LEADERS

Merging sustainability experts and chemists with trail blazers from the fashion and manufacturing industry, the NUVI team fuses experience with passion, each step of the way.



ANDREAS RÖSSLER
Co-Founder / Production

With two decades mastering industrial production, Andreas now channels that expertise for NUVI's cutting-edge operations.



CHRISTOPHE CAPPON
Co-Founder / Biz Dev

In NUVI's early days, Christophe worked to transform teak leaves into a collection of vegan-leather yoga accessories - fueling the inspiration for what we do today.



BETTINA GERETH
Fundraising & Risk Management

Former Investment banker, now with a penchant for impact investing, Bettina steers NUVI's fundraising, strategic direction, and risk management.



JOHANNES ASCHOFF
Finance & Controlling

Former finance director at P&G, Johannes ensures NUVI's vision stays both sustainable and solvent.



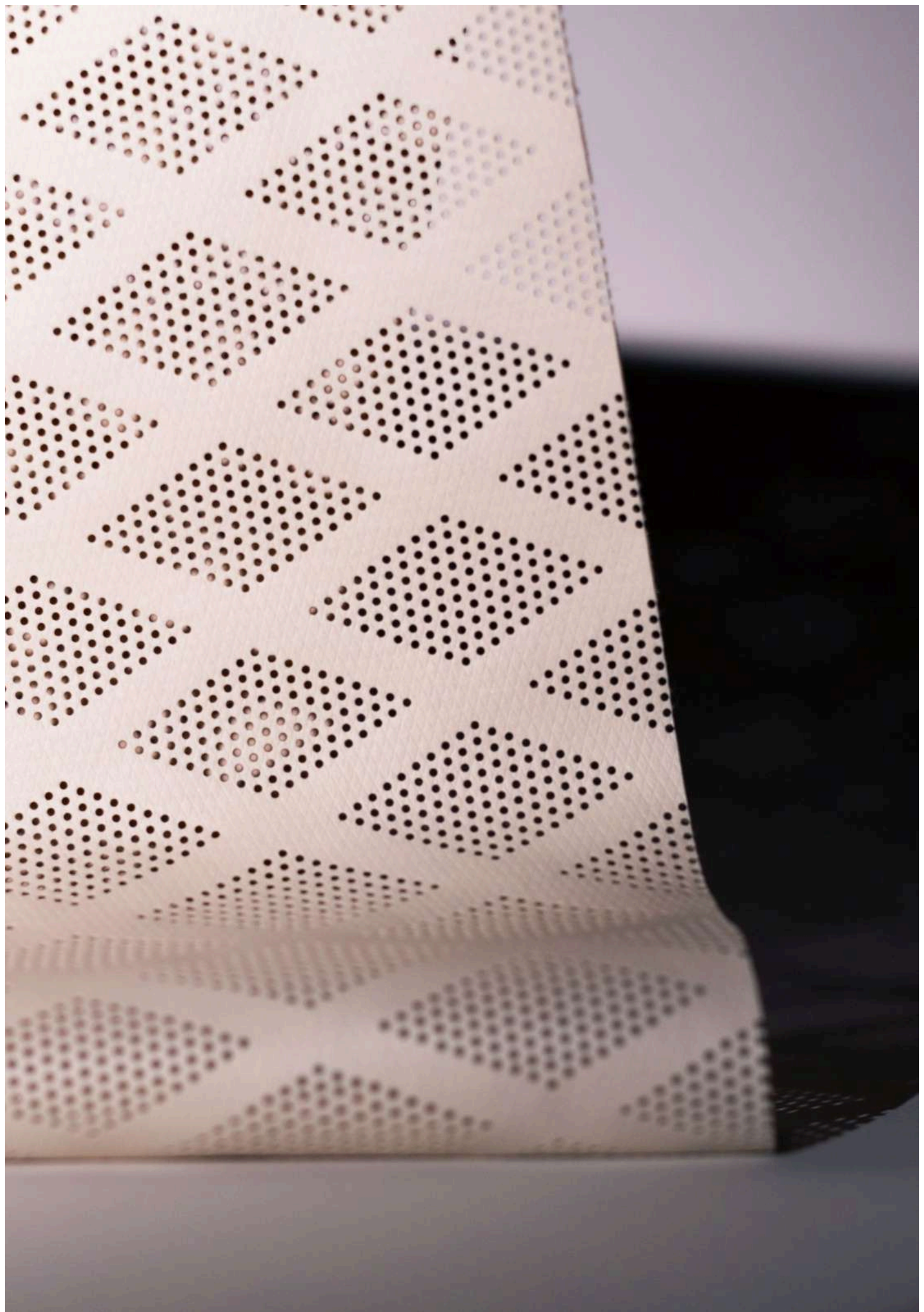
FILIFE RIBEIRO
Research & Development

With a background in synthetic leather, Filipe is now amplifying the performance and potential of our cutting-edge materials.



MELINA BUCHER
Product & Sustainability

From vegan fashion to championing sustainability, Melina ensures NUVI's textiles align with the needs of designers and our planet.



Your Journey, OUR COMMITMENT

You know our story, it's time
to co-create the next chapter.

WHAT'S NEXT?

To schedule a feedback call
or place an order,
contact hello@nuvi.earth

GET IN TOUCH,
the world awaits.



www.nuvi.earth

NUVI
Rethinking Things

