SULAPAC

Designed like nature.

The most sophisticated design and astounding beauty is found in nature. When we learn from nature, we uncover elegance and purpose. Nature knows how to sustain, how to renew, from one season to the next. Always in continuous cycles, always adapting, with resources in harmony.

We create materials designed like nature, because nature knows best.

The plastic waste problem

Over 300 million tons of plastic is produced every year, and the production of plastic is expected to at least triple by 2050. Plastic can be useful for things that need to last, but all too often, the plastic we use has a short lifecycle and it ends up in the wrong place. Furthermore, when disposed, littered, and even in use, plastic degrades into small pieces of microplastics that are almost impossible to clean up.

Permanent microplastics are everywhere: you eat, drink and breathe plastic

We eat and breathe approximately 5 grams of microplastics every week! They are in the air, in the water and in our food. These tiny particles accumulate in nature, and eventually end up in our bodies. Microplastics can be so fine that wind can carry them. Consequently, they have found their way to the high-altitude Himalayas and human lungs.

Read more at **sulapac.com/microplastics**

PLASTIC WASTE PROBLEM

Produced	Collected	Effectively recycled
311 mt in 2014	**~40%** in 2016	**~10–15%*** in 2016
1,124 mt in 2050	**~70%** in 2050	**Max 37%** in 2050

*From recycled plastic roughly 40% is currently so contaminated that it ends up to incineration

Recycling alone can't save us from the plastic crisis

In the past few years, recycling plastic has become a natural everyday chore for many individuals and organizations willing to do their part for the environment. This is obviously a good trend. Few people, however, know what happens when the garbage truck speeds away. Under 50% of plastic gets collected, and from that, only a small percentage gets recycled. Furthermore, microplastics are also emitted during use, for instance, when opening plastic packaging.

Plastic production impacts climate change

Traditional plastics are created with fossil-based raw materials, like oil, that has been created over millions of years underground. When dug up and consumed, it causes an imbalance between the rates of carbon fixation and carbon release, which then leads into accumulation of CO_2 in the atmosphere.

Renewables to rescue

Our dream is to leave a clean planet to our children. That's why our design philosophy is to mimic nature and to stay in harmony with it. Our Sulapac materials are made of plant-based binders and responsibly sourced wood from industrial side streams or naturally occurring clay minerals. They biodegrade into CO_2, water and biomass without leaving toxics nor permanent microplastics behind, and therefore, the carbon cycle stays in balance with nature as well.

> *"The scale of change needed means no player or group can succeed on their own. Instead, we have to take an interdisciplinary approach and work together across industries and sectors to reach a more sustainable future."*
>
> *– Suvi Haimi, Co-founder & CEO*

Accelerating a plastic waste-free future

Together with our customers and partners, governments and other stakeholders, we fight against one of the most pressing environmental issues of our time – plastic waste – and support the transition towards a circular economy.

Food services

Packaging

Join the forerunners at **sulapac.com**

Sulapac helps brands and converters worldwide to replace conventional plastic with a sustainable alternative that doesn't compromise functionality or aesthetics.

Made with Sulapac

View more at **sulapac.com/customers**

Beautiful, functional and sustainable materials, like nature

Bio-based Sulapac materials can be processed with existing injection molding and extrusion machinery that are typically used with conventional plastics.

Universal
Drop-in solution for most production lines and molds.

Premium
Luxurious choice with a unique look and feel.

Solid
Hard-wearing material for products used on a daily basis.

Universal Flex 30
Ideal for complex design like cutlery. Superior usability.

Barrier
Barrier material for water-based emulsions.

Flow
Extrusion material for sustainable yet non-soggy straws.

View portfolio at **sulapac.com/materials**

Wow your customers.

Ready-made products

Our trusted partners provide ready-made products that stand out and meet demanding technical requirements.

Al Bayader
A leading manufacturer and supplier of food solutions

Learn more at **sulapac.com/cutlery**

Quadpack
Sulapac Nordic collection.
Also for water-based products.

Nissha
Premium packaging for dry foods, supplements and oil based cosmetics.

HK Cosmetic Packaging
Packaging solutions for water-based cosmetics.

Toly
Elegant and eco-friendly packaging for compacts.

Learn more at **sulapac.com/cosmetics**

Why choose Sulapac?

Sulapac® is a patented material innovation for the circular economy. Every step of the value chain, from raw material sourcing to end-of-life, is carefully considered from the sustainability point of view.

Functional

Outstanding usability
Suitable for various applications, including luxury packaging and food contact products[1].

Mass-producible
Processable with existing plastic product machinery.

Premium quality
Advanced technical support and quality control to ensure a premium outcome.

Beautiful

Unique look and feel
Natural appearance based on a unique combination of raw materials.

Sustainable

Bio-based
The bio-based content[2] in each recipe is maximized.

Sustainably sourced
Made of responsibly sourced sustainable raw materials[5]. We use feedstock from industrial and agricultural side streams as much as possible.

Designed to reduce plastic pollution
Sulapac® can be digested by naturally occuring microorganisms. It doesn't leave permanent microplastics behind[3].

Safe for people and the planet
The material is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.[6] Food contact approved.[1]

Industrially compostable
Recyclable via industrial composting[4]. Check local recycling instructions.

Low carbon footprint[7]
Based on eco-design, climate conscious raw materials and manufacturing.

1. All Sulapac materials are EU food contact regulations compliant. For other geographies, please ask for further details.
2. Biobased certified by the USDA BioPreferred® program.
3. Biodegradation of 50–78% in 308 days in the marine environment (30°C) (ASTM D6691). Tested according to ASTM D5511 (37°C) accelerated biodegradation in the landfill: 70,4% relative biodegradation in 178 days reached for Sulapac Universal. Scientific literature review available at sulapac.com/key-features
4. The compostability has been tested according to EN 13432 + ASTM D6400.
5. Our wood originates from responsible forest industry companies' side streams. We always follow our strict Policy for Sustainable Sourcing.
6. Ecotoxicity and threshold values for heavy metals tested according to EN13432.
7. 0,09 kg CO_2 eq/kg for Sulapac Universal compared to 1,7 for polypropylene (Cradle-to-gate CFP study according LCA standards performed by an independent third-party consultancy.)

Pioneers changing the world

The Helsinki based Sulapac was founded in 2016 by Doctors of Biochemistry with a mission to a leave a clean planet and better future for all kind.

Every morning, when opening the bathroom cabinet, Dr. Suvi Haimi and Dr. Laura Tirkkonen-Rajasalo faced a dilemma. They wondered why still today eco-friendly cosmetics were kept in conventional plastic packaging. Moreover, everywhere they looked, they saw plastic tubs, containers and single-use products that are likely to end up burdening our planet permanently after use. Together with Dr. Antti Pärssinen, Haimi and Tirkkonen-Rajasalo decided to develop a sustainable material solution and dedicate their expertise to save the world from plastic waste.

Scientifically backed

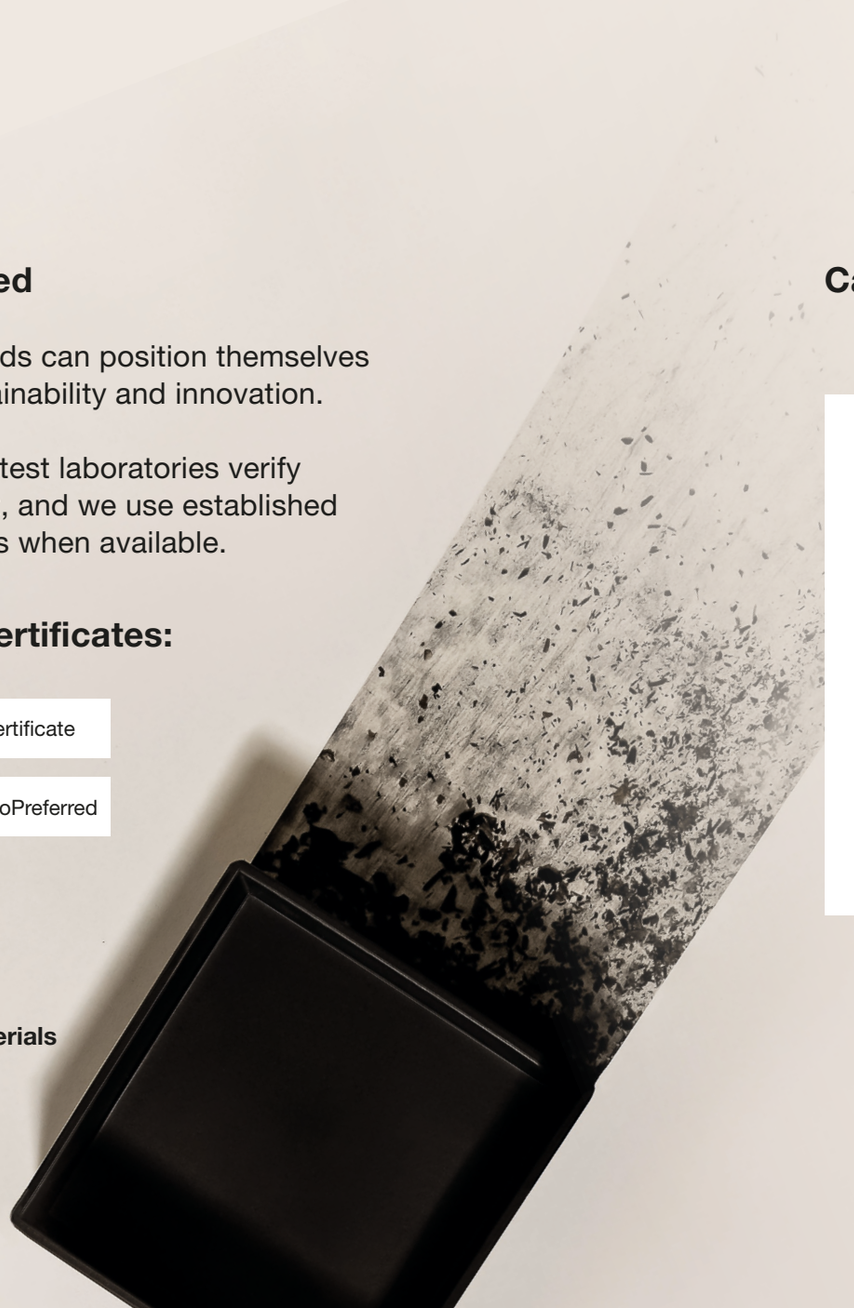
By using Sulapac, brands can position themselves as a forerunner in sustainability and innovation.

Accredited, third-party test laboratories verify that the criteria are met, and we use established international certificates when available.

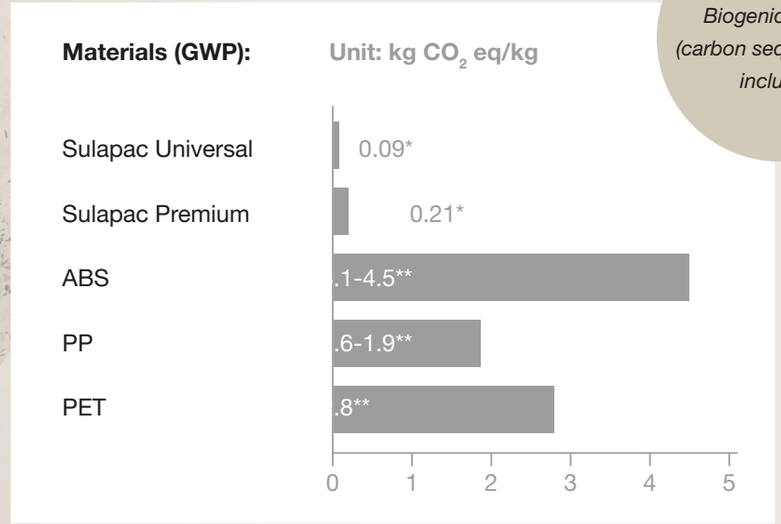
Examples of our certificates:

ISO 9001	BPI Certificate
ISO 14001	USDA BioPreferred
FSC	

Read more about recipe specific certificates at
sulapac.com/sulapac-materials



Carbon footprint for 1kg of granules



Biogenic carbon (carbon sequestration) included

*Universal 0.09 kg CO2 eq/kg and Premium 0.21 kg CO2 eq/kg. Based on cradle-to-gate CFP study according LCA standards performed by an independent third-party consultancy. The study has been critically reviewed.

** Preliminary results of screening cradle-to-gate (GWP, CFP study according LCA standards) performed by an independent third-party consultancy. The results have not yet been critically reviewed.

Learn more about our low carbon footprint at
sulapac.com/blog/reduce-your-carbon-footprint-with-sulapac

Start manufacturing with Sulapac®

From selecting the right recipe, to optimizing production processes right up to the launch of your product, our team is there to help you succeed.

1 Material Feasibility

Select the optimal material recipe based on your requirements.

2 Trial

Test the selected materials with your converter.

3 Testing

To ensure successful massproduction.

4 Contract

Confirm the order volume, delivery schedule and terms.

5 Delivery

Material delivered to the production facility within 1–3 months.

6 Production

Technical support throughout the production.

7 Go-To-Market Support

Sustainability, technical and commercial expertise available when needed.

Join us. Together we can save the world from plastic waste.

sulapac.com

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