

Søuld

Acoustic materials made
from eelgrass

Søuld is a Danish material manufacturer committed to providing forward-thinking designers, builders and end-users with recyclable and carbon-storing acoustic materials made from eelgrass. Founded in 2010, Søuld's mission is to produce high-performance, aesthetic and bio-based alternatives to traditional building materials that can support the transition currently taking place within the construction industry.

For more than a decade, Søuld has collaborated with ecologists, manufacturers and designers to develop acoustic products from eelgrass — an abundant, renewable local sea plant with deep roots in Danish building culture — offering the industry a high-performing, biobased alternative to synthetic materials. Søuld's work has contributed to revitalising the 400-year-old eelgrass building tradition by adapting the material for use in the 21st-century construction industry.

Engineered for residential and commercial spaces, Søuld's eelgrass products create calm and comfortable indoor atmospheres that connect with nature through organic, tactile surfaces and the subtle scent of the sea. Søuld's products offer excellent acoustic, thermal and moisture-regulating properties, are highly resistant to fire, release very low emissions and serve as a carbon storage. See the full EPD at sould.dk

Founded by architects and sustainable design engineers with a passion for quality, aesthetics and high-performance materials, the Søuld team continues to push the limits of eelgrass processing, enhance product quality and develop acoustic panels that meet the needs of the industry and end users.

Material

Søuld's eelgrass products originate from the sea — a place you are never far from in Søuld's native Denmark. The organic material embodies the same sense of calm provided by the sea and when taken indoors, it imbues living spaces with a restorative connection to nature.

AN OVERLOOKED RESOURCE — Eelgrass has been used as a building material in Denmark since the 1600s. On the island of Læsø, naturally washed ashore eelgrass was collected, dried and used to create the distinctive roofs of the island's seaweed houses — a building tradition unique to the area. Today, Søuld builds on this material heritage, combining centuries of knowledge with contemporary manufacturing to transform eelgrass into high-performance acoustic materials for modern architecture. After more than a decade of research and development, Søuld has built extensive expertise in working with eelgrass as a contemporary building material. By combining material knowledge with modern manufacturing, we transform naturally washed ashore eelgrass into acoustic products that unite high acoustic performance, durability and natural material character with a documented environmental profile.



1.
Built in the 17th Century, traditional seaweed houses on the Danish island of Læsø represent the first use of eelgrass as a building material.

Søuld works closely with local suppliers, municipalities and ecologists to ensure the gentle collection of eelgrass that has naturally washed ashore, while leaving living eelgrass meadows undisturbed. During growth, eelgrass binds and stores carbon. When the washed ashore material is collected before decomposition and used in durable building products, this carbon remains stored within the finished panels. Søuld's third-party verified EPD confirms that more carbon is stored in the Acoustic Panels than is emitted during production (A1–A3) (see full EPD here). Eelgrass also has a range of inherent qualities that make it well suited to contemporary interiors. Its porous fibre structure supports high sound absorption, while naturally occurring mineral salts contribute to fire resistance and durability.



Acoustic Products

Made from eelgrass — a natural and carbon-binding material — Søuld's acoustic panels enhance the sensory experience of interior walls and ceilings whilst providing exceptional acoustic performance, fire resistance and a distinct natural character.



Søuld's products embody the character of their origins in the Danish sea to connect architectural environments with nature.

ENGINEERED EELGRASS — The raw material is collected by Danish farmers and engineered by Søuld into acoustic products that deliver high performance in interior environments, combining comfortable acoustics and fire resistance with an appealing aesthetic expression.

The products are approved for indoor use, with very low VOC emissions and documented fire performance. The natural beauty of the eelgrass forges a serene connection to nature indoors, inviting a sense of calm and comfort. The material is resilient yet soft to the touch—imparting texture, warmth, and a subtle scent that recalls the sea.

Søuld's acoustic panels offer architects, designers and builders a biobased alternative for a construction industry in transition. Søuld's engineering of the carbon-binding eelgrass fibres results in building materials that act as carbon storage by locking carbon in the material over the building's lifetime. Søuld's products are sourced and produced in Denmark and are designed for circularity with a focus on documented environmental performance.

With a simple, contemporary aesthetic, Søuld's products are designed for straightforward integration into interiors and are fully customisable to suit residential and commercial interiors of different types and scales. The acoustic panels are convenient and easy to install and their high quality provides lasting comfort.

GENERAL SPECS:

Application:	Interior walls or ceilings
Mounting:	Adhesive/Joints/Frames
Acoustic Absorption:	Up to Class A
Standard Width:	1100 mm
Standard Length:	600 / 1500 / 3000 mm
Dust Release:	0.28 mg/m² (avg. 3 and 15h)
Indoor Emission:	72 µg/m³ (at 28 days)
Total carbon footprint A1-A3:	Up to -3,6 kg CO2-eq./m²*
Cradle to Cradle:	Gold
Recyclability:	100% recyclable
Complete Datasheets:	sould.dk
* See full EPD at sould.dk	

COLOUR VARIATIONS — Søuld's products are made from natural eelgrass. Their colour varies from lighter to darker brown, sometimes with shades of green, depending on the natural character of each batch. For each order, we carefully match panels from the same or closely corresponding production batches to ensure a balanced overall expression.

Variations:



Green Winter



Summer Brown



Bright Autumn Brown



Noma
Søuld Acoustic Boards FR

Photo: Ditte Isager



Roskilde University
Søuld Acoustic Mats FR

SOUND ABSORBING — As a result of the material's porous structure, Søuld's Acoustic Panels deliver an exceptional sound absorption across a wide range of frequencies. By heavily dampening noise, Søuld's products help to create restful and productive atmospheres within residential, industrial and public spaces.

1



1.
As well as reducing ambient noise, Søuld's products bring calm to interiors through their simple, honest forms.



2.
Derived from the sea, the eelgrass fibres naturally contain high amounts of minerals which resists fire.

FIREPROOFING — Søuld's Acoustic Panels are crafted from eelgrass which is naturally impregnated with minerals to result in products with an embedded fire protection. For increased performance, Søuld combines the eelgrass with a flame-retardant.

2

3

CARBON STORING — Søuld is made from a sea plant that reproduces itself annually, washes ashore during autumn storms and is dried on nearby fields by the sun and wind. Eelgrass binds large amounts of carbon during its growth and if left to decompose, it would release CO₂ back into the atmosphere. By safely storing carbon in durable building materials, Søuld's products serve as carbon storage. Our certified EPD confirms there is more CO₂eq bound in eelgrass than what is emitted during Søuld's production of the final product (A1-A3).



3.
Søuld's Acoustic Panels are carbon negative upon delivery to the client (A1-A3). See full EPD on Sould.dk



4.
The material's organic properties stimulate the senses and regulate the interior atmosphere to help keep body and mind in balance.

4

ROBUST & DURABLE — Søuld's Acoustic Panels are robust and durable. The plants growth in salt water adds a natural impregnation to the fibres which impede the growth of mold and bacteria, ultimately enabling a long product lifetime.



Private Villa, Denmark
Søuld Acoustic Mats FR



5.

Søuld's acoustic products improve the quality of interior atmospheres by balancing moisture.

5

MOISTURE REGULATING — Søuld products act as an effective humidity regulator. They absorb excess indoor humidity and release it when the humidity levels drop, thus maintaining an optimal level. This natural humidity control contributes to a pleasant indoor climate that promotes comfort.

6

LOW-EMISSION — Søuld Acoustic Panels offer documented low emissions, reaching Gold in Cradle to Cradle Certified® Material Health, version 4.1. Acoustic Mats FR are suitable for sensitive environments and are classified as emitting low amounts of dust. See our Data Sheet for Acoustic Mats FR on Sould.dk



6.

Søuld acoustic products release low emissions, making them a suitable choice for residential and public spaces.



7.

Søuld's acoustic products retain the evocative quality of the plant they're made from to bring nature indoors.

NATURAL CHARACTER — Humans, climate and nature are inseparable and natural materials allow us to slow down and feel at ease. Søuld brings an honest expression of nature inside, imparting warmth and a sense of pre-industrial humanity. As eelgrass is a living material, unique tonal variations are seen each season from muted greens to warm browns. Watch the expression shift as light and weather conditions change and colours take on more character as a subtle patina emerges over time.

7

FLEXIBLE SOLUTIONS — Søuld is characterised by tactility and simple design solutions that integrate naturally across a wide range of contexts and needs. The material is heat-pressed into flat, uniform mats that can be cut into different shapes and sizes, making customisation straightforward. The products are easy to install using adhesive or screws and can be scaled to suit interiors of different sizes.

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8.

Passionate about collaboration, Søuld also works with designers and architects to create bespoke solutions.



Design Solutions

Søuld offers acoustic panels as finished design solutions for a range of interior needs. Easy to install, they can be integrated into interiors as both design elements and acoustic wall absorbers.

DESIGN SOLUTION — Developed as ready-to-install acoustic elements, Søuld Acoustic Design Solutions combine eelgrass with carefully selected materials such as solid oak, beech and textiles. The collection ranges from modular wall systems to freestanding dividers, offering different ways to integrate sound absorption into the interior. Simple construction and considered detailing make the solutions straightforward to install, while modular formats and design for disassembly support flexibility as spaces and needs change over time.



Production

To unlock the benefits of eelgrass, Søuld has spent over 10 years devising manufacturing processes that merge nature with state-of-the-art technology, and has built a local community of dedicated eelgrass suppliers.

OUR PROCESS — Søuld has established the optimal formula to produce eelgrass mats at an industrial level and deliver products that meet market needs.

Søuld's products are sourced and manufactured in Denmark through close, long-standing relationships with local partners who are equally committed to production of high quality products. We collaborate with independent institutes and certification authorities to test and ensure that our producers meet the highest performance standards.

CIRCULARITY — Søuld's products are designed for circularity. When they reach their end-of-life after many years of use, they can be returned to the factory, re-shredded and either blended into standard products or used to create a base for second-generation Søuld materials. Our materials are sourced and produced in Denmark. We collaborate with partners, test institutes and certification authorities to verify data about the materials we use, our processes and product life-cycle, and to provide transparent results. We develop bio-based acoustic products of high quality and always search for the best solutions to improve the documentation of our work and product performance.



4.

Søuld products are made in Denmark using manufacturing practices that generate little waste and require low energy.



1

SOURCING — Eelgrass is a natural resource which reproduces itself annually in the sea, washes ashore without any human intervention, and is dried on nearby fields by the sun and wind. Working closely with our community of farmers in Denmark as well as local municipalities and ecologists, Søuld has developed a gentle approach to eelgrass collection based on environmental protection, safeguarding of ecosystems and the preservation of eelgrass meadows. Our sourcing practices also sustain the age-old eelgrass trade and empower local businesses.

Sourcing

Airlaid

AIRLAID — At Søuld's Danish production facility, the eelgrass is analyzed, sorted and classified according to colour and quality, then shredded down to shorter standardized fibres to ensure the best aesthetic and mechanical properties. Initially, the shredded fibres are impregnated with a natural, bio-based flame retardant and mixed with a binder specially designed for cellulose fibres and recyclability. The blended fibres are then formed into eelgrass batts using airlaid technology.

2



3

COMPRESSION — After the fibres are formed into eelgrass batts, they are compressed into mats using a process which balances a low temperature with high compression. The mats are then ready to be cut. Standard sizes are offered at 600 x 1100mm, or the mats can be fully customized to suit any project, with sizes up to 3000 x 1100mm. The finished mats are then ready for easy installation onto interior walls or ceilings.

Compression

Circularity

CIRCULARITY — Søuld's products are designed for circularity. When they reach their end-of-life after many years of use, they can be returned to the factory, re-shredded and either blended into standard products or used to create a base for second-generation Søuld materials. Søuld products that are not returned to the factory can be sent for combustion at heating plants.

4



5

QUALITY CONTROL — We work closely with our local production partners to maintain full control at every step of the process from each component to the final product. The Søuld team are enthusiastic developers and we constantly strive to improve our processes and the aesthetic and functional properties of our mats to make them the ideal choice for interior spaces.

Quality Control

Transparency

TRANSPARENCY — Our materials are sourced, designed and produced in Denmark. We collaborate with partners, test institutes and certification authorities to verify data about the materials we use, our processes and product life-cycle, and to provide transparent results. We strive unceasingly to develop bio-based acoustic products of high quality and always search for the best solutions to improve the documentation of our work and product performance.

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To learn more about Sould, request samples, place an order or discuss a collaboration, please get in touch with our team below.

Email	info@sould.dk
Phone	+45 93 805 810
Instagram	@sould.dk
Website	www.sould.dk

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