

SENSTEX

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## ACOUSTIC BYSSUS CORE PANELS

## Intro

Mussel beards or Byssus are natural fibres secreted by bivalve mollusks, to anchor themselves to surfaces in the ocean. In edible mussels, the byssus is the inedible part that is usually removed during the cleaning process. A machine cuts off all the mussel fibres, which are then gathered in containers and disposed of in landfills or used as biomass.

### Byssus Tech

Seastex developed byssus specific cleaning methodes and textile recycling technologies to harness the mussel beard's unique properties, integrating key circular economy principles and energy efficiency. By leveraging our resource effective design strategy and production methods, Seastex successfully developed a first-of-its-kind pilot production line in-house in 2025.

### Material Innovation

Byssus offer better properties compared to traditional materials. Naturally flame-retardant, they also provide excellent acoustic and thermal insulation, and are circular, renewable, biodegradable and have a negative CO<sub>2</sub> footprint of - 5.5kg per kg. (Cradle-to-gate)

### Our Partners

37 Farms





Acoustic Byssus Core (ABC) panels are a revolutionary line of upholstered aluminium frame acoustic panels that houses a circular byssus core. This byssus material provides our products with excellent sound-absorbing capabilities, effectively reducing noise pollution and enhancing acoustic comfort.

Fabricated in Glasgow, Scotland, our collection of acoustic products represents a harmonious blend of traditional craftsmanship, sustainability and in-house developed all natural cleaning methods and technology. We are proud to be pioneers in the production of byssus-based products, delivering a solution that meets high acoustic standards while also responding to the growing demand for circular alternatives in the construction industry. With our range of new circular acoustic products, we aim to decarbonise the acoustic industry without compromising our commitment to environmental responsibility.

## ABC Wall and Ceiling Panels

Our Acoustic Byssus Core (ABC) panels are available in various sizes. The minimum dimensions are 60 x 40 cm, and the maximum are 290 x 110 cm. We recommend contacting us to discuss feasibility.

Bespoke Options:

- Panel Dimensions
- Upholstery
- Shadow Gap





## V-feet ABC Panels

A freestanding 40 x 120 x 8 cm Acoustic Byssus Core (ABC) panel mounted on two 10cm height stainless steel V-Feet Bases (VFB). These feet can be positioned along the full length of the aluminum frame.

Bespoke Options:

- Panel Dimensions
- Upholstery
- Feet Positions

## Single Post ABC Panels

A freestanding 40 x 120 x 8 cm Acoustic Byssus Core (ABC) panel mounted on a 60cm height stainless steel Single-Post Stand (SPS) with a 35 cm diameter base plate.

Bespoke Options:

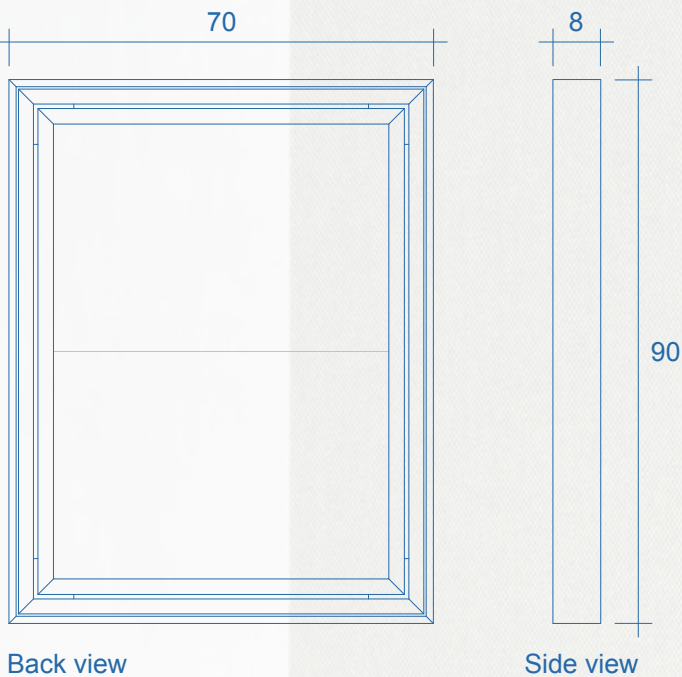
- Panel Dimensions
- Upholstery
- Central Post Height
- Base Plate Diameter



## Standard Panel Sizes

While **custom sizes are available on request**, aligning your interior or architectural design with the dimensions in the table helps reduce material waste and lowers the carbon footprint of your project, as it avoids unnecessary frame, byssus, and textile offcuts.

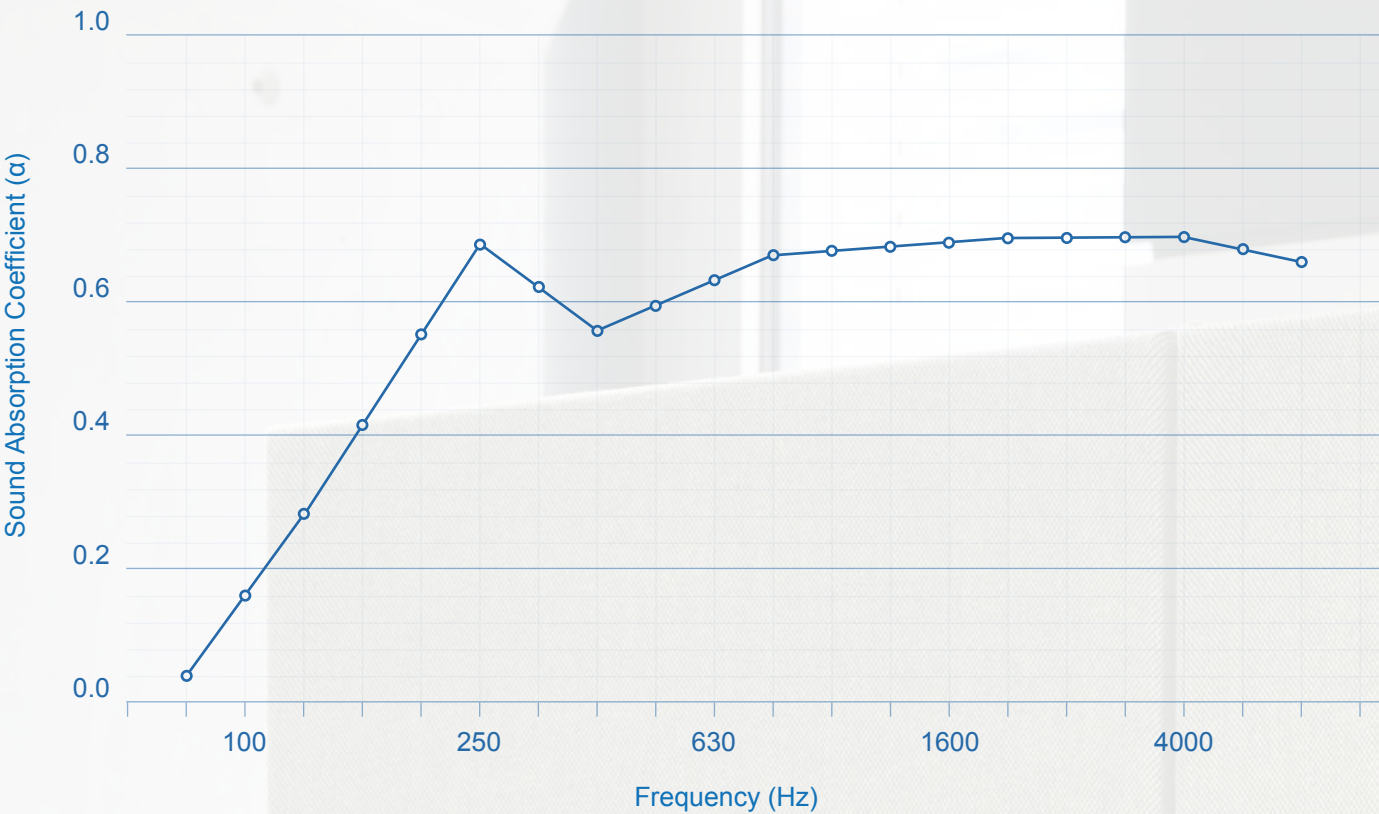
EXAMPLE



Length (cm)	Height (cm)	Depth (cm)	Surface (m <sup>2</sup> )
40	110	8	0,44
	160		0,64
	219		0,87
	260		1,04
50	110	8	0,55
	130		0,65
	160		0,8
	190		0,95
	210		1,05
	250		1,25
	260		1,3
60	40	8	0,24
	50		0,3
	70		0,42
	90		0,54
	100		0,6
	130		0,78
	160		0,96
	170		1,02
	190		1,14
	210		1,26
	220		1,32
	250		1,5
	290		1,74
70	50	8	0,35
	90		0,63
	110		0,77
	130		0,91
	160		1,12
	170		1,19
	210		1,47
	250		1,75
	260		1,82
	290		2,03
90	130	8	1,17
	160		1,44
	190		1,71
	210		1,89
	250		2,25
110	260	8	2,34
	130		1,43
	190		2,09
	250		2,75

## Upholstery Fabrics

Our panels can be covered in any fabric, ranging from 0.7mm to 3mm in thickness. While we suggest using Camira's Main Line Flax collection for a perfect blend of acoustic performance and safety, we are open to explore more options. If you have a different fabric in mind, please send us samples, and we will thoroughly test them to ensure compatibility with our frame's fabric fix system. We are committed to delivering the best possible solutions to meet your needs.



Acoustic characteristics (To be updated in 2026) \*\*

Sound absorption coefficient is used to evaluate the sound absorption efficiency of materials. It is the ratio of absorbed energy to incident energy and is represented by  $\alpha$ . If the acoustic energy can be absorbed entirely, then  $\alpha = 1$ .

Product	100Hz	250Hz	630Hz	1000Hz	1600Hz	2000Hz	4000Hz
ABC Panel	0.16	0.69	0.64	0.68	0.70	0.70	0.70

Reaction to fire & standards

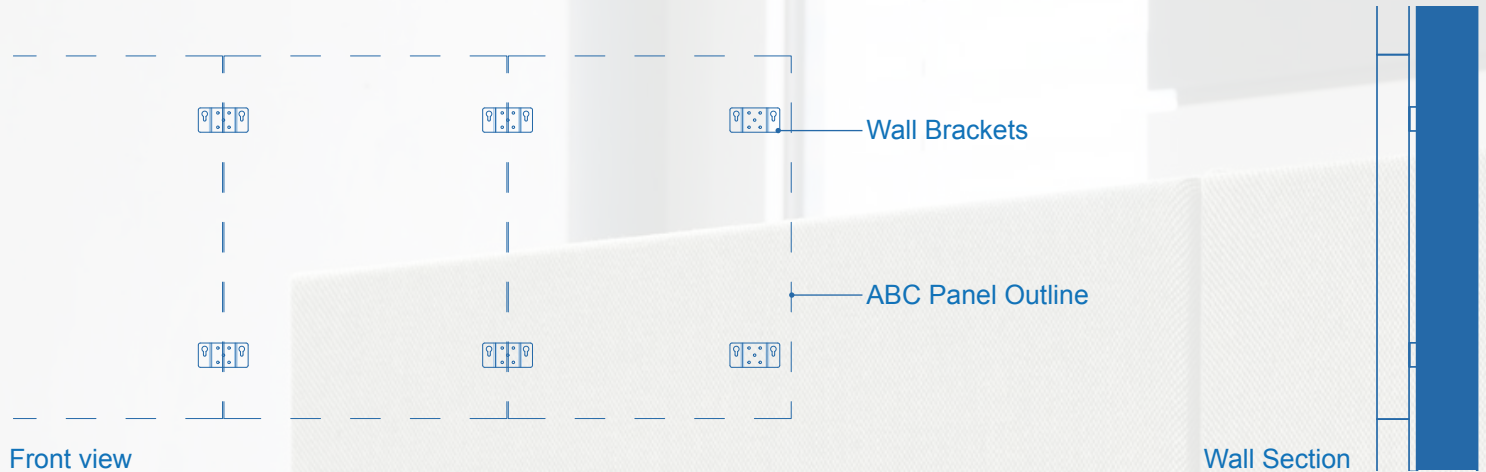
	Byssus Core	Main Line Flax Fabric (Camira)
Classification	B1-s2, d0 *	B1-s1, d0
Materials	100% Byssus	75% Virgin Wool, 25% Flax
Finishing	No added binders	No added Polymers

\* According to EN ISO 11925-2:2020, with EN 13501-1:2018 available in February 2026.  
\*\* According to EN ISO 10534-2:2003, with EN ISO 354:2003 available in February 2026.

## Installation Guidelines

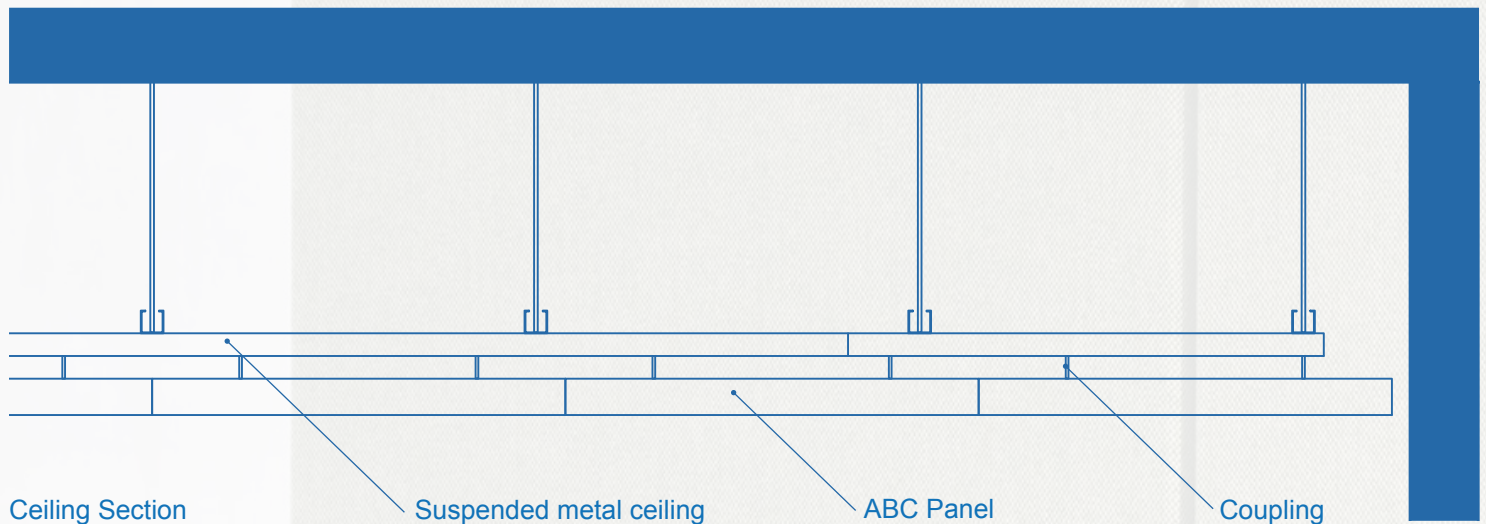
### Wall Mounted

Brackets can be mounted on any wall type suitable for panel installation. We custom-design and fabricate brackets to suit your specific requirements and applications. Whether you need pivoting, detachable, or tilting panels, we can create a tailored solution. Get in touch with us to design a bespoke system for your project.



### Ceiling Mounted

Panels can be installed on any suspended metal ceiling, as our tiles feature adjustable grooves that enable panels to be secured with coupling brackets. We collaborate with contractors across the UK and EU, and we can provide expert guidance on the optimal solution for your project and M&E requirements.



Backed by over 15 years of experience in construction, metal fabrication, interior design, and industrial design, we bring in-depth knowledge on bespoke wall and ceiling installation systems. Our expertise and commitment to excellence ensure that we deliver top-of-the-line solutions for every project we undertake.

## Physical appearance & performance

Product type	<b>Acoustic Byssus Core Panels</b>
Fabric	Any fabric between 0.7mm - 3 mm thick. Preferably all natural fabrics, fabrics with recycled content or with a low polyamide %. Specified fabrics need to be fireproofed. (Crib 5)
Other materials	Aluminium Frame Stainless Steel Components Byssus Core
UV Resistance	Depends on specified fabric. Contact preferred textile supplier for fabric properties.
VOC emissions	Fabrics used to cover our tiles may emit VOC's. Contact preferred textile supplier for fabric properties.
Product type	<b>Byssus Core</b>
Material	100% Byssus
Standard Density	188 kg/m <sup>3</sup> Densities of 45 kg/m <sup>3</sup> up to 250 kg/m <sup>3</sup> are available upon request.
Carbon Footprint	- 5.5kg CO <sub>2</sub> / kg Calculated in-house, Cradle to Gate, with an LCA and EPD planned in 2026.
Thickness:	2 cm Byssus panels can be produced at a thickness of 1 - 3 cm
Fire Rating:	B1-s2, d0 ** Naturally flame retardant
Thermal:	0,044 W/mK *
VOC emissions	Byssus is a natural material and emits no VOC's Our treatment process is done with eco friendly ingredients.
Odour	Clean, scentless. Our unique treatment neutralises the smell of byssus.

\* According to EN 12667:2001

\*\* According to EN ISO 11925-2:2020, with EN 13501-1:2018 available in February 2026.



## Partnering with Scottish mussel farmers for a circular future