

MATERIAL DATA SHEET – BAUX ACOUSTIC PULP

BAUX ACOUSTIC PULP

BAUX Acoustic Pulp is 100% bio-based and respectfully sourced from nature. The material is generated by modifying cellulosic fibers in a way that drastically moves the boundaries of cellulosic material properties to a completely new level. It's harmless for us, it's harmless for the environment. BAUX Acoustic Pulp is the result of more than 25 years of biomimicry focused research and development. The research for our particular product comes from the Royal Institute of Technology in Sweden.

Sustainable:

- 100% Bio-Based
- 100% Biodegradable
- 100% Recyclable
- 0% waste and pollution from manufacturing
- Resourceful material sourcing

Functional:

- Strong
- Lightweight
- Fire Retardant
- Water Repellent
- Sound Absorbent

Unpacking and handling:

- Handle BAUX Acoustic Pulp with care during unpacking and installation
- Be sure to inspect materials upon delivery and do not install products of unacceptable quality
- Products waiting to be installed should be stored in a clean and climate controlled environment
- BAUX Acoustic Pulp can be cleaned with a vacuum cleaner with a brush attachment without being harmed

Installation: Read the installation instructions before installing BAUX Pulp. BAUX Acoustic Pulp sustain humid spaces, but panels should be acclimatized in the space 48 hours before attaching them to the wall. BAUX Acoustic Pulp behaves like un-treated wood.

Avoid wet environments, dirty environments and exterior applications.

Design: Carefully designed by Form Us With Love. Inspired by the Origami folding technique. To further amplify strength the backside of the BAUX Acoustic Pulp panels have been carefully designed using a honeycomb structure, often found inside the wings of aircrafts and spaceships. The honeycomb structure allows to minimize the amount of material used without compromising the product's strength.

Manufacturing process: The manufacturing process is 100% green and highly technological. The cellulose mix is formed inside a 3D mold with a powerful vacuum method and dried under high pressure. The surface is nano-perforated using an advanced laser technique. All material waste is recycled back into the production process and re-used again. All water used is built into a closed circular system and recycled. The only emission from production is a tiny amount of pure and clean water vapor as the material dries.

COMPOSITION OF INGREDIENTS

Ingredients	Share (%)	Function	Origin	Certificates / other
CELLULOSE (PINE & SPRUCE)	94%	Matrix	Sweden	FSC and PEFC
WHEAT BRAN	5%	Visual look	Sweden	EU legislation controlled, non-GMO
BIO BINDER 5101 <small>Citrus fruit, potato starch and wax from plants</small>	<1%	Binder	Sweden	Certified according to ISO9001, ISO14001 and ISO50001. Members of the UN Global Compact Group.

(1) BAUX Acoustic Pulp is available with three variants of wheat content. wheat 00%, wheat 05% and wheat 30%

PHYSICAL APPEARANCE & PERFORMANCE

Appearance: Interior wall panels

Colors: One color: Wheat 05% - product is unpainted

Odor: None

Solubility in water: None

Asbestos release: None

Density: Product: $\sim 120 \text{ kg/m}^3 = 7.4 \text{ pound/ft}^3$ ($2.4 \text{ kg/m}^2 = 0.49 \text{ pound/ft}^2$)

Material: $\sim 1019 \text{ kg/m}^3 = 6.6 \text{ pound/ft}^3$

Recycled content: None

Harmful additives: None

Red list chemicals: None

Emissions (VOC): TVOC (EN 16516) 28 days: 0.026 mg/m³
- BREEAM International: Exemplary level
- Leed v4.1: Compliant
- French VOC Regulation: A+

REACTION TO FIRE & STANDARDS

Classification	Europe: D-s2-d0 (EN 13823 EN ISO 11925-2) USA: C (ASTM-E84) Australia: Group Number 3 under Australian Standard AS 5637.1 2015 (test method AS/NZS 3837 - 1998)
Extinguishing media	Water, Carbon Dioxide, Foam or Dry Chemical
Stability and reactivity	Stability: Stable

ACOUSTIC PERFORMANCE

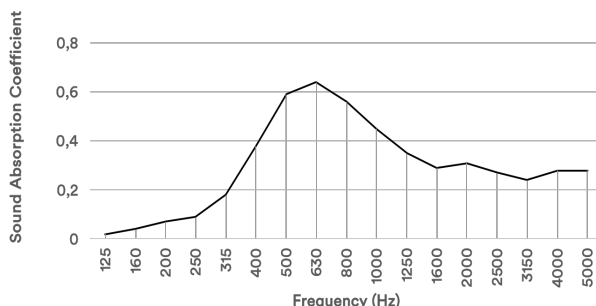
Performance testing indicates that BAUX Acoustic Pulp has excellent absorptive qualities, making it well suited for spaces that can benefit from a more restful and focused acoustical environment. A triad of sound absorption mechanisms are used: diffusion, absorption, and chambers. The irregular 3D shaped surface breaks up reflections and spreads them in different directions. The cellulosic material fibers transform sound waves into micro movement and heat. And the honeycomb chambers trap sound waves entering through the perforated surface which bounce around and “die out.”

α_w : 0.35

NRC: 0.35

SAA: 0.35

Class: D



α_w = Weighted sound absorption coefficient NRC = Noise Reduction Coefficient SAA = Sound Absorption Average (ASTM C423)

BAUX

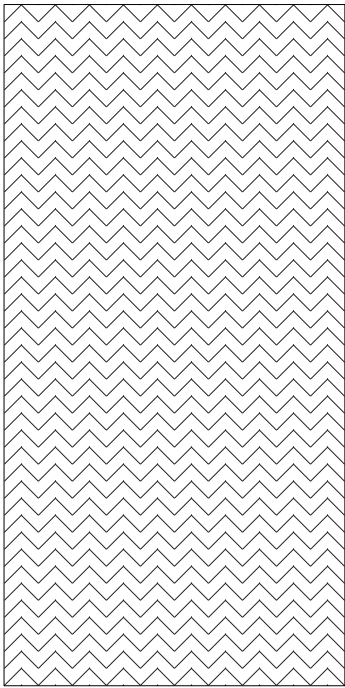
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BAUX MATERIAL DATA SHEET

DIMENSIONS & PATTERNS

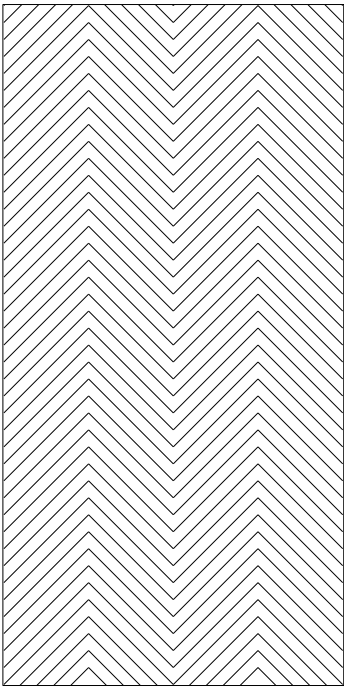
	w [mm]	h [mm]	t [mm]	pieces/m²	w [~inch]	h [~inch]	t [~inch]	pieces/sq.ft.
Energy	500	1000	20	2	19.69	39.37	0.78	0.186
Pulse	500	1000	20	2	19.69	39.37	0.78	0.186
Sense	500	1000	20	2	19.69	39.37	0.78	0.186

ENERGY



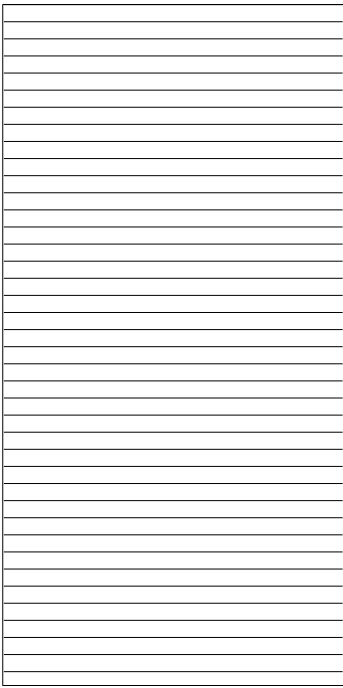
w

PULSE



w

SENSE



h

w

COLOR

The color name is “Wheat-05” and is achieved using GMO-free wheat bran. No chemicals added.



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