

BIOFOLD



STUDIO SAMIRA BOON



BioFold is a unique series of acoustic elements that are composed of biobased and recycled textile residues, for example from hemp or jute coffee bags. BioFold takes this non-reusable textile that is otherwise difficult to recycle and transforms it into a new biocomposite. The folded panels, based on the Japanese origami technique, give spaces a distinct and sustainable identity.

BIOFOLD



BioFold Hemp

50% PLA fibers (biodegradable plastic) and 50% hemp sourced in the Netherlands.



BioFold Denim

50% PLA fibers (biodegradable plastic) and 50% denim textile waste streams.



BioFold Viscose

50% PLA fibers (biodegradable plastic) and 50% viscose waste streams from the mattress industry.

MATERIAL

BioFold consists of raw materials that are 100% biobased (jute, hemp, wood, PLA) or recycled (métisse textile). The BioFold can be treated with a fire-retardant coating, which is a chemical spray. Related to fire safety, it is recommended not to mount the panels in a nail-tight manner.

TECHNICAL DETAILS

BioFold Basic

$\alpha_w = 0.4$ & $NRC = 0.55$, class D;

Panel depth = 65 mm
Panel depth including French cleats
(installation system) = 75 mm

Maximum height: 2800 mm
Maximum width: 750 mm

BioFold Acoustic

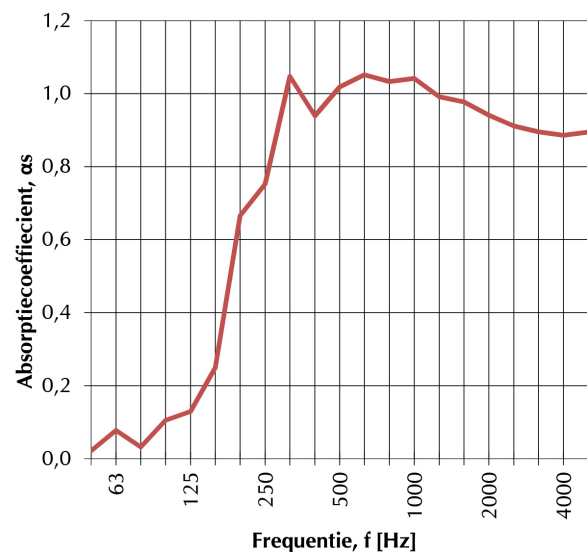
$\alpha_w = 1.0$ & $NRC = 0.95$, class A;

Panel depth = 110 mm
Panel depth including French cleats
(installation system) = 120 mm

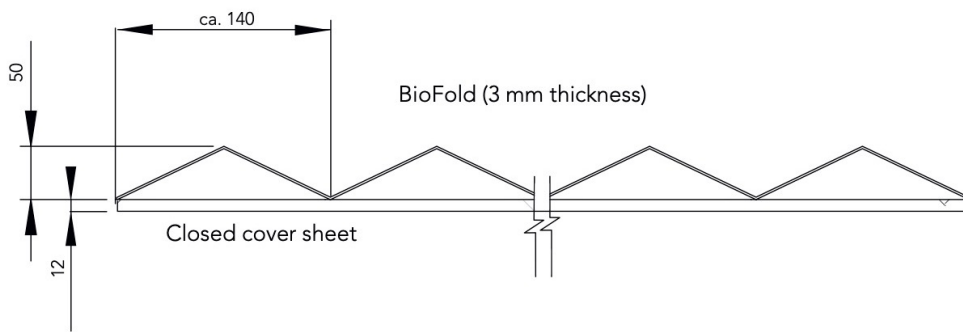
Maximum height: 2800 mm
Maximum width: 750 mm

The BioFold Acoustic has been optimised by adding absorption material made from textile residues. The combination has been tested for acoustic properties of ISO 11654 and ASTM C423.

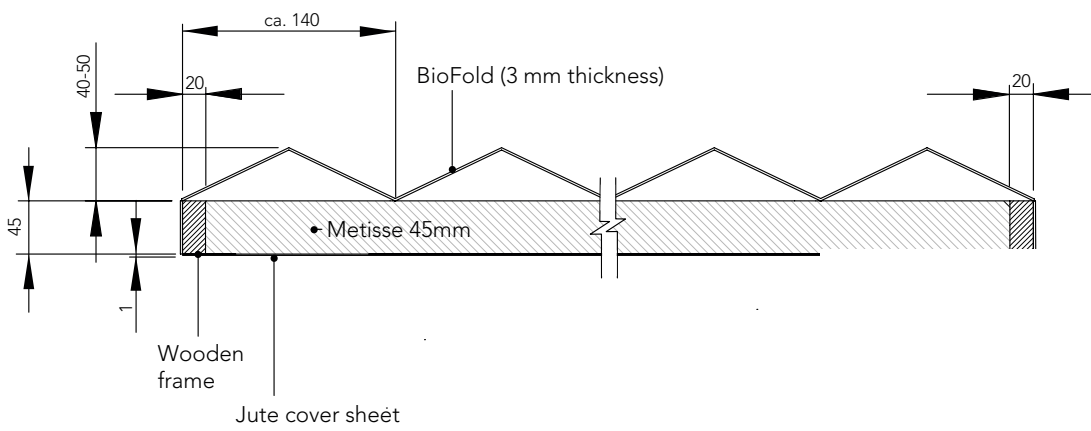
Test results on a flat BioFold surface



Biofold Basic
(mm)



Biofold Acoustic
(mm)



BIOFOLD

Installation

The BioFold panels are delivered with French cleats for installation. One French cleat is attached to the panel and the other french cleat is attached to the wall. The panels can be installed by yourself or by us in consultation.

Maintenance

The panels are easy to maintain and can be cleaned with a dry or slightly damp cloth. The material is not completely water resistant, so cleaning with a wet cloth is not recommended.

Reuse

Most parts of the BioFold panels are removable and reusable. Parts that are suitable for reuse are biodegradable and recyclable.

Pricing

Prices range between €218 and €320 per m², depending on the type of panels, the amount of m², the complexity of the finishes, and the most recent costs of materials.

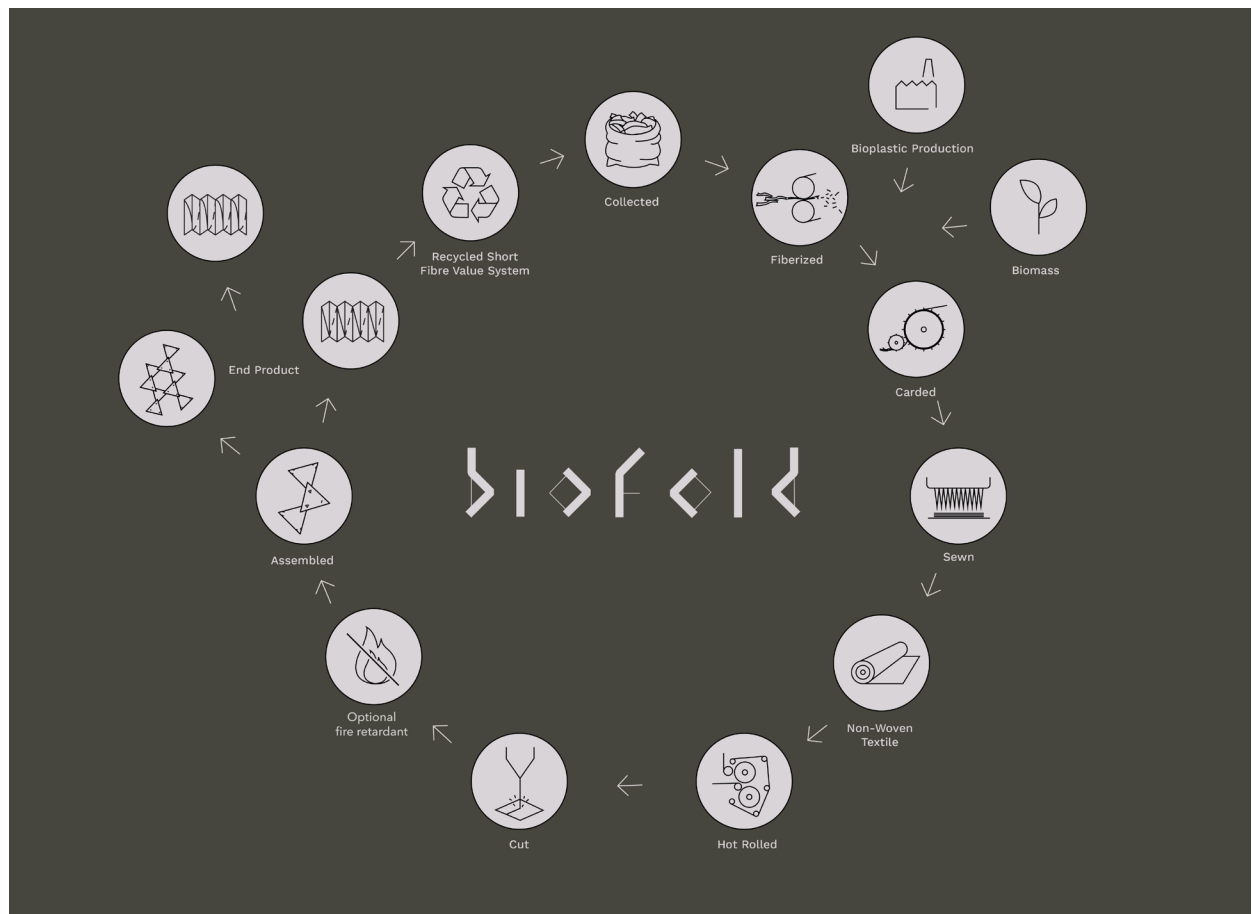


CIRCULARITY

BioFold is inspired by the abundance of wasted natural fibers derived from plants, primarily jute and cotton. BioFold utilises these non-rewearable textiles that are otherwise difficult to recycle and combines them with a biobased plastic to create new biocomposite materials.

Using a circular process and digital production techniques, we transform the biocomposite into products with high quality, functional, sensorial and flexible architectural applications.

The BioFold product is biobased, waste based and recyclable. After several cycles of recycling the BioFold product has over its whole lifecycle not only a low environmental impact but even a negative environmental impact.





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