



Photo by Alexander van Berge

BioFold is a unique series of high performance, bio based acoustic elements. It is composed of locally sourced natural fibers and textile waste streams combined with biobased plastics. BioFold designs are based on origami structures and parametrically developed by utilizing digital production techniques.

In turn, important qualities are embedded into the biocomposite. Due to the 3-dimensionality, the material acquires flexibility as well as acoustic, and structural properties. It not only has a good acoustic function but also gives interiors a distinct and organic appearance.

MATERIAL



BioFold Hemp

50% hemp
50% PLA



BioFold Viscose

50% viscose
50% PLA



BioFold Denim

50% denim
50% PLA

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 and to ensure fire safety, it is recommended not to mount the panels in a nail-tight manner.

MAINTENANCE

The BioFold panels are easy to maintain and can be cleaned with a dry / slightly damp cloth, duster, or, if possible, a vacuum cleaner with a soft brush.

Since the BioFold material is a biocomposite rather than a soft textile, it does not gather much dust. In addition, because of the wooden framework closing the top

and bottom of the panel, it is not possible for dust to gather inside the panels, leaving only the BioFold 3D surface to maintain.

The frequency of maintenance needed depends on the location, however, our experience shows that within office spaces (meeting rooms as well as public areas), dusting the panels once a year is sufficient.



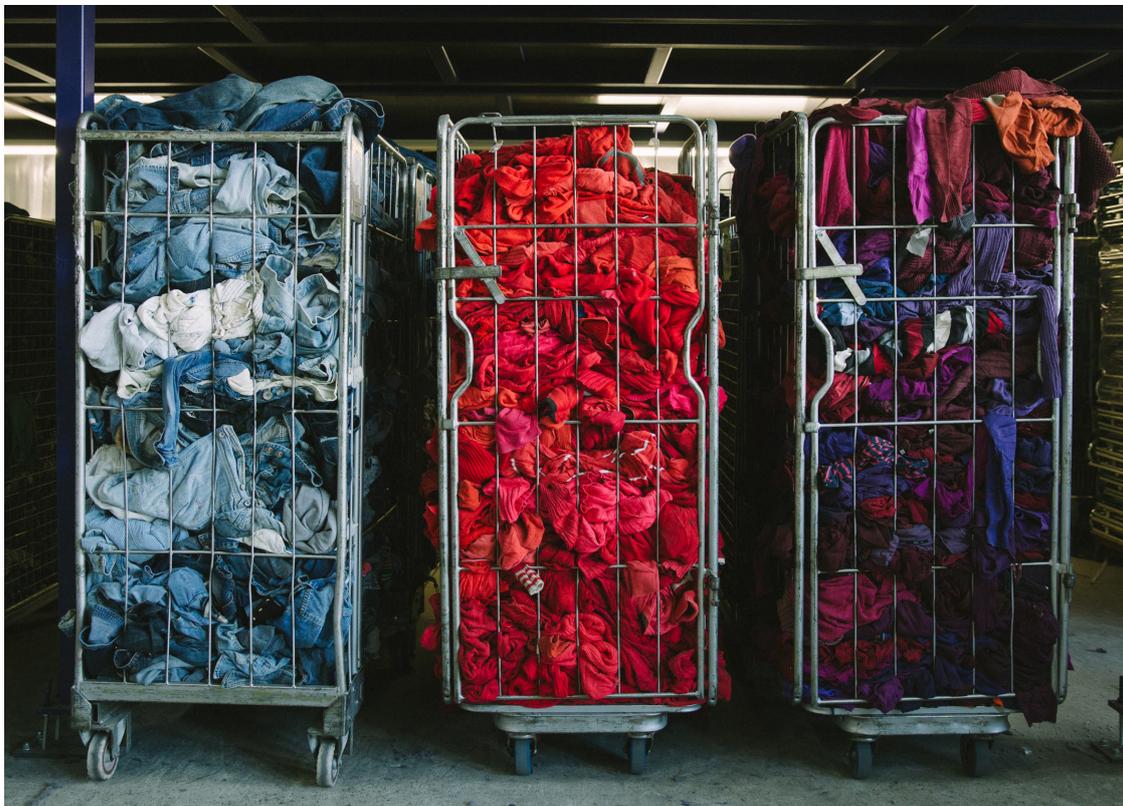
CIRCULARITY

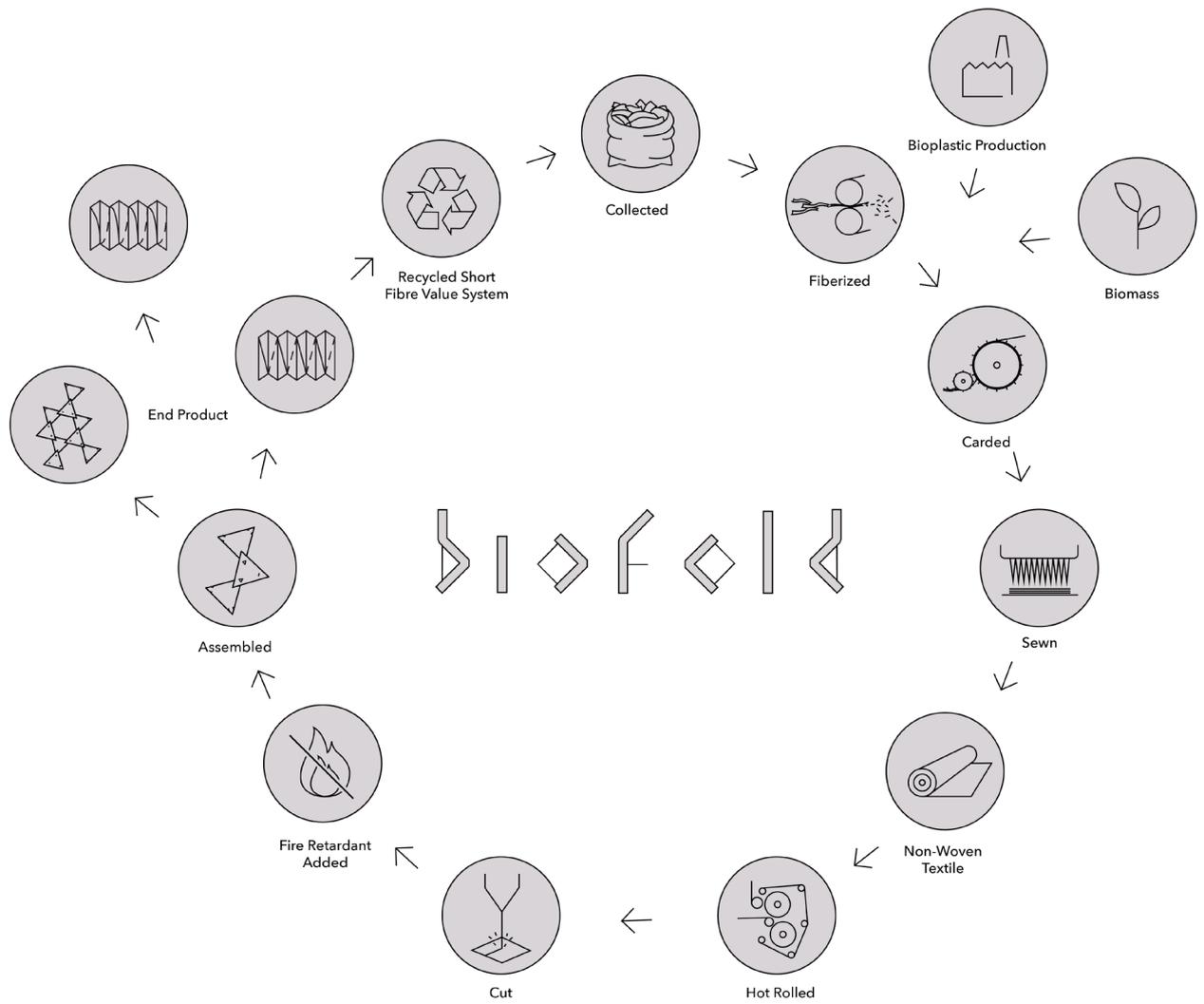
BioFold is inspired by the abundance of wasted natural fibers derived from plants, primarily jute and cotton. BioFold utilises these non-rewearable textiles that are otherwise difficult to recycle and combines them with a biobased plastic to create new biocomposite materials.

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. Most parts of the BioFold panels are removable and reusable and parts that are suitable for reuse are biodegradable and recyclable. Through multiple recycling cycles, the panels achieve not just a low environmental impact over their entire lifecycle, but even a negative environmental impact.

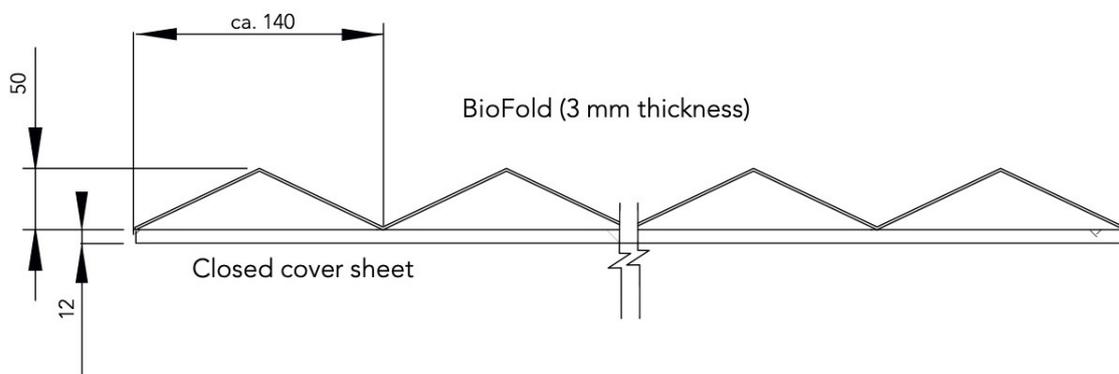




BIOFOLD BASIC

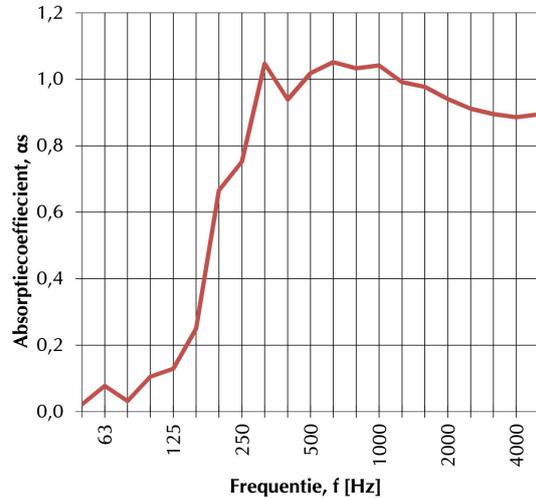
Acoustic absorption:	$\alpha_w = 0.4$
NRC:	0.55
Classification:	D
Maximum height:	2800 mm
Maximum width:	750 mm
Panel depth:	65 mm
Panel depth incl. French cleats:	75 mm
Weight:	35,24 kg/m ³

BioFold Basic (mm)



BIOFOLD ACOUSTIC

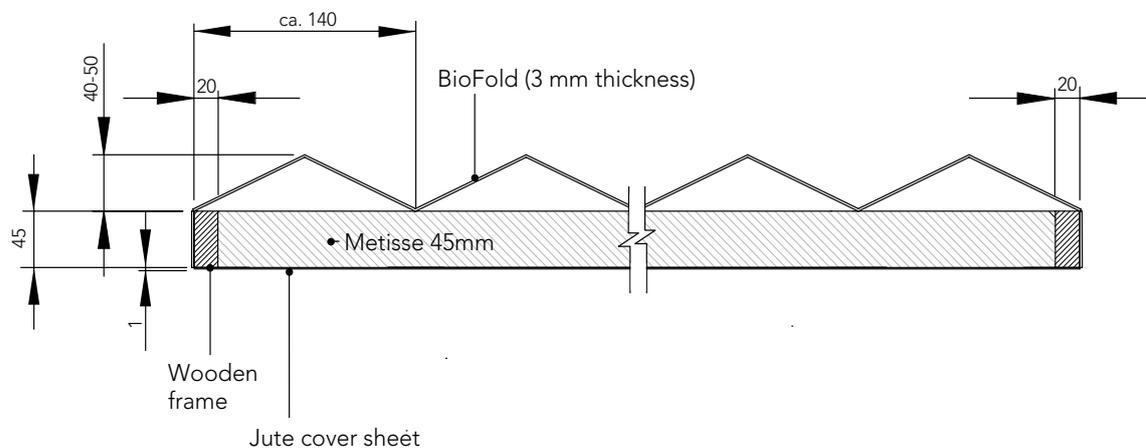
Acoustic absorption:	$\alpha_w = 1.0$
NRC:	0.95
Classification:	A
Maximum height:	2800 mm
Maximum width:	750 mm
Panel depth:	110 mm
Panel depth incl.	
French cleats:	120 mm
Weight:	80,58 kg/m ³



Acoustic properties

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.

BioFold Acoustic (mm)



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.



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USER EXPERIENCE

"Circular design is at the heart of our new office and selecting materials that reflect this vision was essential for BBN. The biobased, waste-based, and recyclable BioFold walls play a significant role in achieving these goals."

Leon Batist, BBN

"Our goal in crafting a healthy and functional workspace for bbn was to blend circularity with comfort. BioFold walls support this vision by incorporating recycled textile waste, creating an inviting atmosphere, and providing unique acoustic benefits."

Odette Ex, Ex Interiors

For additional information, pricing or images:

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