BioBoost
Accelerating biobased horticulture

Building panel made from seaweed and horticultural residuals

Crop	Miscellaneous -
Application area	Materials
Status	Scale-up stage
Public availability	Non-public

Description

SeaWood is a circular and fully biobased building panel developed by BlueBlocks – a design and materials studio focused on accelerating the transition toward a more sustainable construction sector. The panel is made from locally cultivated seaweed, combined with natural binders and agricultural and wood industry residues. The result is a sheet material comparable in use and workability to MDF or particle board, but without the environmental burden or toxic ingredients.

From seaweed to building material
Seaweed grows rapidly, requires no freshwater, pesticides, or fertile land, and sequesters carbon during growth. This makes it a highly sustainable raw material for biobased production. BlueBlocks collaborates with Dutch seaweed farmers to strengthen regional supply chains and keep the environmental footprint of production to a minimum. By combining seaweed with natural resins and plant-based fibers, SeaWood panels are lightweight, durable, and compostable at the end of their lifecycle.

Applications and aesthetics
SeaWood is designed for interior use, including wall coverings, furniture, displays, and partition walls. Thanks to the natural ingredients, the panels have a warm, organic look. The unique texture and subtle color variations of the seaweed remain visible on the surface, adding to the material's visual appeal.

Circular and scalable
Unlike conventional sheet materials, SeaWood contains no formaldehyde or synthetic resins. The production process is energy-efficient and scalable without compromising sustainability. BlueBlocks works across the value chain – from seaweed cultivation and residue processing to manufacturing and implementation in design and building projects. SeaWood is a strong example of system innovation within the biobased and circular economy.

Impact and ambition
With SeaWood, BlueBlocks aims to accelerate the shift toward a climate-positive construction sector. By creating alternatives that are not only sustainable but also functional, attractive, and easy to apply, the company helps make biobased building accessible to a broader audience. SeaWood symbolizes a new generation of materials where ecology, design, and practical usability come together.

Used conversion methods

Mechanical-Physical processes

Pressing

Milling

Resources

https://www.blueblocks.nl/portfolio/seawood/ Initiative website