



R&D Project

Technical bulletin

CORK FLOATING ISLAND[®]

The advantage of using cork
in floating islands



AMORIM
CORK COMPOSITES

Cork Floating Island®

Cork floating islands are modular cork platforms that are specifically designed for the recovery of degraded ecosystems, wastewater treatment, aquatic gardening, and other possible uses.

CORK FLOATING ISLAND® is an exclusive product, developed by Bluemater in collaboration with Amorim Cork Composites.

Specially designed for bioremediation of wetlands, rivers and reservoirs, it can also be used in biological treatment of lagoon systems and phyto-WWTPs. Floating islands are the most environmentally friendly solution for ensuring a healthy balance of surface water. They enable plants to grow on the water's surface, and thereby restore the biodiversity and ecosystems of rivers and marshes.

Amorim Cork Composites is a partner in the development of environmentally friendly solutions that ensure a sustainable balance of surface waters.



Why Amorim Cork Composites?

“ACC has a long tradition of innovation in the field of cork-derived products, and from the outset we thought that it was the ideal partner to develop this product. We weren't mistaken, because the company has enthusiastically embraced this project, and assumed production costs ever since the first demonstration platforms.”

Nuno Gomes, Bluemater

Cork Floating Island®

Advantages and Applications

Main advantages

- Sustainable cork platform
- Low density and good buoyancy
- Low maintenance costs
- Highly durable platforms
- Sustainable water treatment
- Modular design with easy connection between modules



Technical specifications

Material: Cork agglomerate

Density: 0.2

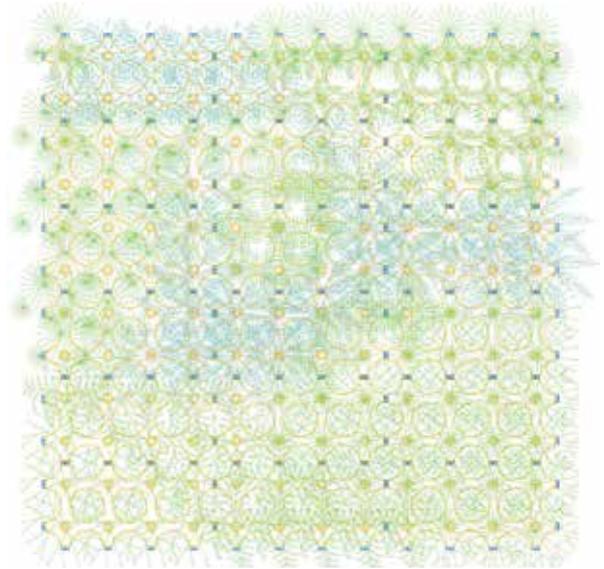
Plant weight: up to 16 kg of plants per m²

Number of plants: up to 24 plants per m²

Dimensions: 100 x 50 cm // Height: 6 cm

Applications

- Biological treatment of waste water
- Restoration of habitats in degraded or polluted areas
- Recovery of river banks, lakes and reservoirs
- Creation of habitats in urban gardens, lakes and biological swimming pools
- Rehabilitation and maintenance of protected ecosystems
- Integrated aquaculture and hydroponic systems



Why cork?

Cork is a natural and sustainable material, produced in Portugal. The principal reason for choosing cork is that it is biodegradable and may be reintegrated into the natural cycle without causing pollution, unlike existing plastic materials. The second reason is related to cork's aesthetic and functional aspects. Cork-based materials make the islands more attractive, and enable them to be populated by a wide diversity of living organisms, such as algae, mosses, barnacles, snails, thereby greatly increasing the yield of these platforms in the foreseen applications.

Cork Floating Island®

What are they?

They are cork-based modular platforms, which by being interconnected are transformed into floating units. They may float on their own in a body of water, such as a lake or a reservoir, or be anchored at the bank, thereby forming floating islands which recreate artificial banks.

How do they work?

The islands contain niches in which different types of plants may be planted, in a hydroponic system, with their roots immersed in water. Possible plants include emergent plants, such as water lilies, reeds, cattail, rushes, marsh samphire, and plants of agricultural interest, such as strawberries, lettuce, rice, tomatoes and aromatic plants.



Where can they be used?

They can be used in wastewater treatment plants, for environmental bioremediation of eutrophic water, and in lakes and reservoirs to recreate marsh habitats, promote biodiversity and foster the cultivation of foodstuffs. They have been applied in reservoirs, urban WWTPs, urban lakes and in the port of Leixões. The goal of these initial installations is to demonstrate the wide range of applications of the CORK FLOATING ISLAND® system.



About ACC and Bluemater

Amorim Cork Composites

As the cork industry's world leader, at Amorim Cork Composites we strive daily to reinvent the World: we reuse, recycle and reinvent 100% natural and organic materials. We value cork, and develop solutions using sustainable composites for multiple applications. We feed on innovation-driven ideas, and are therefore continuously developing new cork-based products. Cork unused by other segments of the cork industry is the raw material that we use to develop a portfolio of materials for various industries - from construction, home and office decoration, to high-tech industries such as automotive, aeronautics and aerospace.

Bluemater

Bluemater offers innovative water treatment solutions for the supply of drinking water to populations and for sustainable treatment of wastewater, while protecting the environment. Bluemater's products offers solutions for various problems related to water and air pollution. All of Bluemater's solutions are based on sustainable biological treatments and are designed to meet each client's needs.

