



Data Sheet of Groasis' reusable Waterboxx[®] plant cocoon
Part of the Groasis Ecological Water Saving Technology

Plant up to 20 trees with 1 Waterboxx[®] and benefit from our unique Triple Ninety Benefit: use 90% less water, plant at 90% lower cost, and enjoy a 90% survival rate.*

The Waterboxx[®] plant cocoon is an innovative, proven and patented planting technology that enables you to plant, during each planting cycle, up to 2 trees or a tree in combination with shrubs, bushes, flowers or vegetables, without the need for irrigation – even on degraded land. It has successfully been applied in more than 50 countries around the world.

The Waterboxx[®] is a reusable polypropylene 'intelligent bucket' with a cover which allows it to catch rainwater and produce and capture water through condensation/dew. One or two saplings (trees / shrubs / vegetables / flowers) can be planted in the central twin opening. Depending on the local environmental conditions, UV exposure and handling, it can be reused up to 10 times.

The water in the intelligent bucket moderates the temperature under the box and the specially shaped center opening creates a supportive micro-climate for the young plants / trees to grow. Data from plantations shows that using the Waterboxx[®] results in faster growing trees – generating approximately 35% more biomass after 4 years. This means that your first fruit harvest may arrive sooner, trees should have more timber, or the trees could generate more carbon credits.

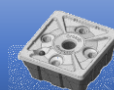
A wick through the bottom of the intelligent bucket drips an average of about 50 cc of water to the sapling(s) each day. At first, the wick will drip more and gradually less, which is enough to encourage root growth and survival. Water loss through evaporation is minimized. The plant is incentivized to develop its taproot and find water by itself. The Waterboxx[®] helps the planted tree(s) through the first crucial year(s) by assisting the sapling to reach 3m+ depth with its roots. After the roots have reached the capillary water, the tree uses the water that is available in the soil and it can continue to grow without the Waterboxx[®]. The Waterboxx[®] should then be removed (after 6-18 months) and can be reused to plant another set of trees. Replace (or wash) the wick before the new planting cycle. As the Waterboxx[®] is made from virgin polypropylene, it can be reused up to 10 times. You can thus plant around 10-20 trees with each Waterboxx[®], thereby minimizing the cost-per-tree.

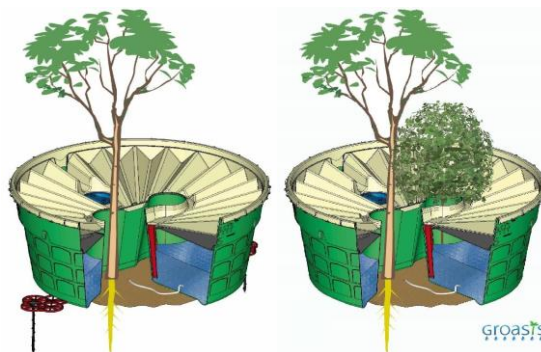
The Waterboxx[®] plant cocoon is the cheapest method to plant without irrigation in hot, dry, eroded or degraded areas whilst enjoying a high survival rate of your trees. The fact that you can reuse the box for up to 10 years, planting new trees each year, makes the cost per tree incredibly low.

[Check the video how it works here](#)

We recommend using the Waterboxx[®] with the [Growsafe](#) plant protectors for even better results. You can use the Waterboxx[®] for agroforestry projects such as orchards, vineyards with vines, olives, mangoes, citrus, argan, or carob trees, with or without vegetables (e.g. tomatoes, eggplants, pumpkins, or melons). It can be used for timber plantations or CO₂ offset projects. It is also very suitable for ecosystem restoration, planting 2 trees and/or plants in combination with bushes and/or wildflowers –to create colonizing micro-ecosystems of pioneer plants which reforest the area. With only 250 Waterboxxes[®] you can plant 500 pioneer plants per hectare, unlocking significant savings compared to traditional ecosystem restoration methods.

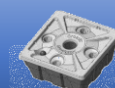
** compared to traditional irrigation methods such as drip irrigation*





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Standard parts	Box - lid – isolation plate - cap – 2 siphons - wick
Colour of box	Green
Colour of lid	Beige
Colour of caps/siphons	Blue
Colour of isolation plate	Black
Weight	approx. 1,400 grams (approx. 49.4 oz)
Material	Virgin polypropylene
Additives	UV protection – anti-oxidants
Quality standard	UV protection according to standards of BASF and CIBA
Temperature resistance	Between - 20°C to + 60°C (-4°F to +140°F)
Wick	Nylon
Diameter x height	approx. 50 x 22 cm (approx. 19.69 x 8.7")
Content	approx. 15 litres (approx. 4 gallons)
Complete sets per pallet	150 for air freight / 250 or 300 for land or sea freight, Consolidated pallet L 100 x W 120 cm (39.3 x 47,2")
Complete sets per 20Ft container	3,000 units on 12 pallets x 250 pallet Container pallet L 98 x W 115 x H 215 cm (38.6 x 45.3 x 84.7")
Complete sets per 40Ft HC container	7,200 units on 24 pallets x 300 pallet Container pallet L 98 x W 115 x H 250 cm (38.6 x 45.3 x 98.4")
Water gift per day	Variable - 700cc to 18cc - on average 50cc (50 millilitres)
Water gift influence	Depending on hygroscopic characteristics of soil
Lid characteristic	Ultra-low adhesion to water
Refill	Opening with cap in cover allows a quick refill if necessary
Expected lifetime wick	Approx. one year (wick(s) need(s) to be cleaned or replaced each planting cycle)
Expected lifetime Waterboxx [®]	Depending on temperature and UV: 5 to 15 years. On average each Waterboxx [®] is 10 times reusable
Evaporation of water through lid	Approx. zero
Development of algae in water	Approx. zero
Product generation	10 th generation
Product version	Model "Twinboxx" for 2 trees and/or bushes and/or vegetables



For prices and availability please contact your local Groasis distributor, or contact Groasis (info@groasis.com) directly.

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Planting manual
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 रोपण के मैनुअल
 種植手冊
 Mwongozo wa kupanda
 Dikim el kitabi
 Manual de siembra
 Manual de plantação
 Manuel de plantation
 Handleiding om te planten



Read the planting manual in our Groasis Waterboxx[®] app, which can be found in Google Play or the Apple App store.

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Website	http://www.groasis.com
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