



Tree Anchoring

Application

- Anchoring trees above and below ground



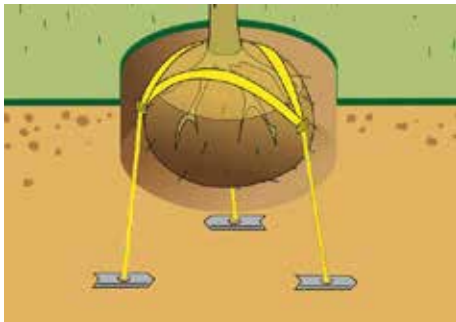


Tree Anchoring

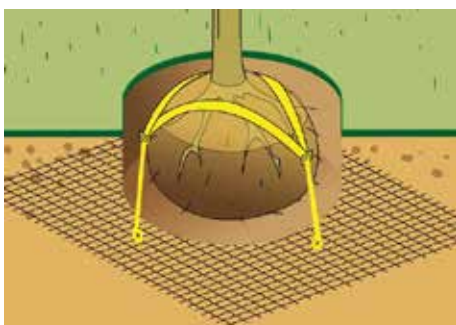


Material

- Fast and easy installation (± 10 minutes)
- User friendly
- No unsightly anchors or wooden tree stakes above the surface (nice final image)
- Possibility to adjust anchor straps in length
- Suitable for circumferences from 90 cm and higher even possible
- To prevent anchoring straps from cutting into the growing tree roots, it's essential to cut and remove them at the top after about 2/3 years.



With anchors



With wire mesh or anchors

Tree Anchoring

Root Ball Anchoring

The demand to anchor trees without unsightly stakes or guy wires is increasing.

The GreenMax Root Ball Anchoring is an efficient and reliable method to anchor the trees underground and greatly improve the visual impact of the landscape. The trees will receive extra support without visible timber or stakes. Straps with attached steel anchors are installed underground. The steel anchors will ensure a strong underground root ball anchoring. The tree will keep its natural movement and still get the necessary support.

One person can install the entire Root Ball Anchoring in a few minutes. Time and costs are saved.

Application with wire mesh or eyebolts

Circumference	Type	The Root Ball Anchor set consists of
< 20 cm	GGB 120550 GGB 120650*	<ul style="list-style-type: none"> ● 3 straps without steel anchors ● 1 Root Ball protection mat ● 1 tensioning strap with ratchet
< 25 cm	GGB 120760*	
< 50 cm	GGB 121070*	

Installation tools required: strap tensioner and wire mesh; see images on page 36.

* Straps adjustable in length

* Advice: concrete mesh at least 20 cm wider on all sides of the Root Ball

* To ensure that the concrete mesh remains in place, we advise to install a fleece (geotextile) between the root ball and concrete mesh (this also applies to the BIO Root Ball Anchoring)

Application with anchors

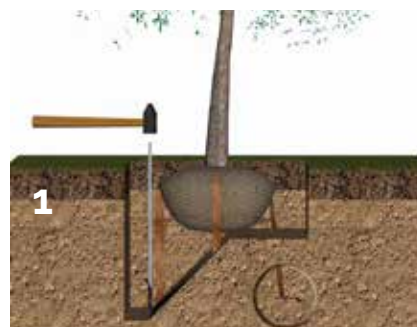
Circumference	Type	The Root Ball Anchor set consists of
< 20 cm	GGB 120120	<ul style="list-style-type: none"> ● 3 straps with steel anchors ● 1 Root Ball protection mat ● 1 tensioning strap with ratchet
< 25 cm	GGB 120225	
< 50 cm	GGB 120350	
< 90 cm	GGB 120460*	
> 90 cm	GGB 120970*	

Installation tools required: drive rod Installation tools required: drive rod (available in the length of 1 m or 1.5 m) and strap tensioner; see images on page 36

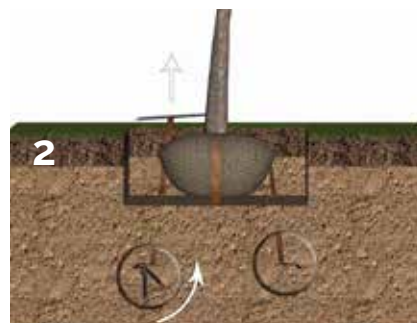
* Straps adjustable in length



Mounting options



1 Drive the 3 anchors into the ground and remove the driving rod



2 Loadlock the 3 anchors with firm pull on the strap



3 Push the tensioning strap trough the 3 loops



4 Tighten the strap by winding the ratchet. Repeat after 2 days, after tightening unhook the ratchet tensioner.



Material

- Fast and easy installation (± 10 minutes)
- User friendly
- No unsightly anchors or wooden tree stakes above the surface (nice final image)
- Completely biodegradable bio straps after 5 years
- This underground anchoring system stimulates a natural growth

Installation Tools

Standard equipment:



Separate strap tension lever



Drive rod only necessary for ground anchors

Additional supplies (optional):



Ramrod



Drive rod remover

Bio Tree Anchoring

Bio Root Ball Anchoring

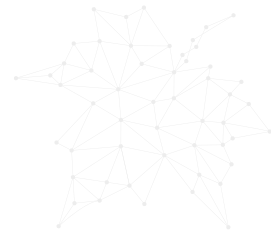
The GreenMax Root Ball Anchoring system is also available in a biodegradable form. The straps in this system are made of Bio Based polymers which breaks down after its intended use, to result in natural by-products.

Who cuts the straps after 5 years to prevent root girdling? With the use of our bio-tree anchoring, girdling is prevented because the straps break naturally after approximately 5 years.

The GreenMax bio-root ball anchoring has received the European Bioplastic Certification and offers a sustainable and responsible solution for anchoring trees underground.

Test results

Testing (standards: DIN EN 12225/DIN EN 13432/ DIN 18916) has shown that the organic straps remain sufficiently strong to vouch for stability during the first four years.



Application with wire mesh or anchors

Circumference	Type	The root ball anchor set consists of
< 35 cm	GGB 1202035 BIO 2	<ul style="list-style-type: none"> 3 bio straps without steel anchor 1 root ball protection mat (diameter: 80 cm) 1 bio tensioning strap with ratchet

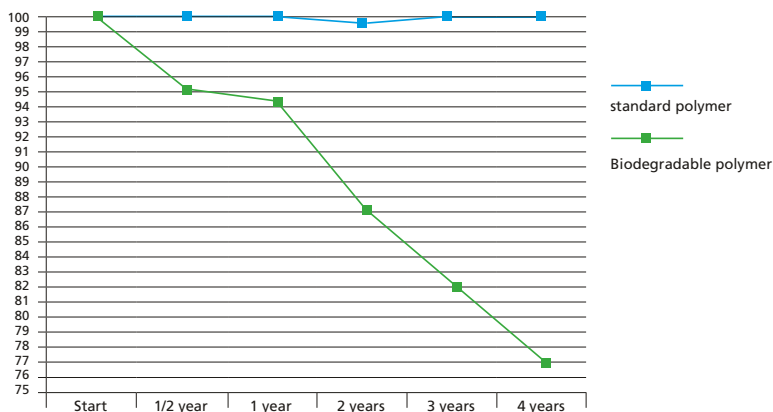
Installation tools required: strap tensioner and wire mesh

Application with anchors

Circumference	Type	The root ball anchor set consists of
< 25 cm	GGB 1202025 BIO	<ul style="list-style-type: none"> 3 bio straps with steel anchors 1 root ball protection mat (diameter: 60 cm) 1 bio tensioning strap with ratchet
< 35 cm	GGB 1202035 BIO	<ul style="list-style-type: none"> 3 bio straps with steel anchors 1 root ball protection mat (diameter: 80 cm) 1 bio tensioning strap with ratchet

Installation tools required: drive rod (Available in lengths of 1 m or 1.5 m) and strap tensioner; see images page 36

Degradation in % throughout a (simulated) four-year period, in accordance with the DIN EN 12225 standard



Microbiological resistance in accordance with DIN EN 12225

EN 12225
 The DIN EN 12225 standard describes a method for determining the microbiological resistance of geotextiles by means of a soil burial test. Both the DIN EN ISO 846 and DIN EN 12225 standards prescribe specific temperature and humidity requirements. Furthermore, DIN EN ISO 846 calls for the presence of particular bacteria and fungi microbes. DIN EN 12225 prescribes the use of active soil, such as compost, in which natural forms of these micro-organisms are present. The micro-organisms multiply by consuming the bioplastic.



Material

- Nylon
- Colour: grey/black
- Roll Length: 25 meters and 50 meters
- Width: 5 cm

Dimensions

Type	Length	Width
Nylon Tree Tie	25 or 50 m ¹	5 cm
Nail + /- 400 pieces (2.5 kg) per box	40 mm	3,1 mm

Nylon Tree Tie

Tree Ties

The GreenMax Nylon Tree Ties are used to easily bind up and fix trees.

By using a broad tree tie the trees are being kept in the right position.



Nail



Material

- Jute
- Colour: beige
- Roll Length: 15 meters and 25 meters
- Width: 7 and 8 cm
- Biodegradable

Dimensions

Type	Length	Width
Jute Tree Tie	25 m ¹	7 cm
Jute Tree Tie	15 m ¹	8 cm
Nail + /- 400 pieces (2,5 kg) per box	40 mm	3,1 mm

Jute Tree Tie

Tree Ties

The Jute Tree Tie is made of strong, 100% recycled woven jute. The added advantage of using jute is that it does not cut into the bark of the tree. The tie is secured to the tree stake using tacks.

It has a tensile strength largely comparable to that of the Nylon Tree Tie. The Tree Tie remains in place for two growing seasons. The decomposition process commences after three years, so that if one forgets to remove the tie, it will simply decompose naturally.





Material

- Canvas reinforced rubber, 100% recycled
- Colour: Anthracite/black
- Roll length: 25 meters
- Width: 4 cm

Dimensions

Type	Length	Width
Canvas reinforced rubber tree ties	25 m ¹	4 cm
Tree tie buckle	Nvt	5 cm innersize
Nails 400 pieces (2,5 kg) per box	40 mm	3,1 mm



Tree tie buckle



Canvas Reinforced Rubber Tree Tie

Tree Ties

GreenMax's rubber tree ties are canvas reinforced and are used for easy tree tying and anchoring.

By using wide tree ties, trees are kept in the correct position. By means of (tree tie) nails, the tie can be attached to the tree stake.

The tightening loop can be used as a spacer between the tree stake and the tree trunk.





Tree Anchoring