

Textile water storage + Underground irrigation system



Catalog 2024

CITY TREES
FRUIT TREES
VITICULTURE
LAWNS

ATHLETIC FIELDS
SOCCER FIELDS
GOLF COURSES
SLOPES

GREEN ROOFS
PLANTING POTS
RAISED PLANTING BEDS
FILTER BASINS

What is LITE-SOIL?

OVERVIEW

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PRODUCTS

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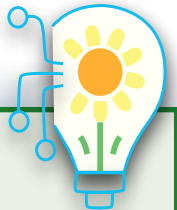
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Our many years of know-how in geotextiles performs as the basis for our patented LITE-SOIL products:

- » As the non-woven strips (**LITE-STRIPS**) mixed down into the soil store water directly in the root area.
- » The non-woven net (**LITE-NET**) it effectively transports water and air to the roots.
- » The underground irrigation system (**BLUELITE-NET**) which saves up to 70% of water in comparison to the conventional surface spray irrigation systems.

Optimal results scientifically confirmed



Scientific research by the University of Natural Resources and Applied Life Sciences (BOKU) of Vienna has shown:

- ✓ The greening effect of **LITE-NET** on slopes is 50% higher than that of coir mats.
- ✓ **LITE-NET** stores 6 times more water than a coir mat.
- ✓ **LITE-STRIPS** can store 8 times more water in soil mixtures in comparison to porous clay pebbles.



LITE-SOIL is the innovative and sustainable water and cost saving solution for the air and water supply of your plants.



LITE-SOIL products are textile water storage. They are made from a special fleece/felt that only contains around 10% of the material. The other **90%** are pores that can store an extremely large amount of air and water internally and conduct them by capillarity, as a result **1 kg** of fleece/felt stores up to **10 liters** of water.

Advantages

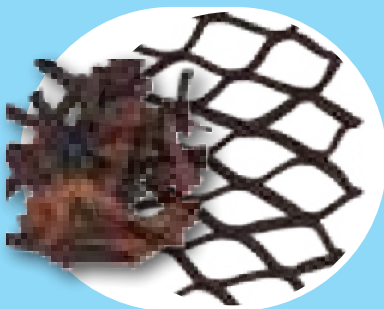
- » Water storage for the root area
- » Up to 70% of water saving
- » Optimal water storage
- » Efficient water conduction
- » High aeration effect
- » Better greening effect
- » Cost-effective
- » Easy installation at any depth
- » Three-dimensional laying
- » High flexibility
- » Low weight
- » Erosion protection
- » Reduced soil compaction
- » Less felting

Our 3 materials:

(all made in Europe)

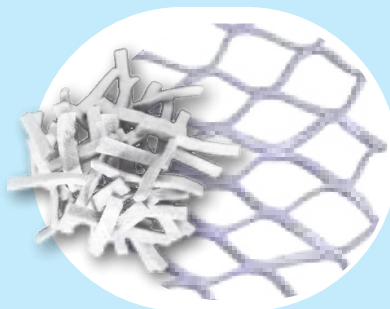


100% biodegradable or durable



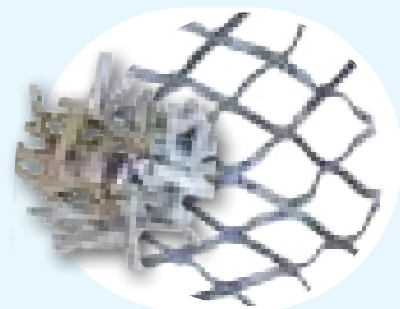
BIO1

Biologically degraded after approx. 1-2 years, made of 100% cellulose fibers. Ideal for annual plants (e.g., flowers, tomatoes and other vegetable plants) or as a support in the initial growing phase, e.g. for lawn or slope greening.



BIO5

Biodegraded / composted after approx. 5-10 years, made of 30% cellulose fibers + 70% PLA (Polylactide). Ideal for all types of plants including perennial plants and repeatable usage with annual plants.



PP

Durable and sustainable, made of 100% polypropylene. Ideal for all types of plants, especially for perennials because the products made of PP can be used again and again. Its use is recommended combined with the underground irrigation system **BLUELITE-NET**.

LITE-STRIPS

Water storage strips

LITE-STRIPS are water retaining non-wovens in strip form for mixing into the soil close to the roots.

They serve as substrate improvement for loosening compacted soil, for aerification or to support initial growth. Due to the elongated shape of the non-woven strips, the substrate is more permeable and stable.

In addition, the water storage capacity is significantly increased. Plants can access the stored water in the non-woven very easily and effectively when needed.

1 kg of **LITE-STRIPS** stores up to 10 l of water.

Applications

- » Trees & bushes
- » Lawns & lawn grids
- » Slopes
- » Green roofs
- » Athletic fields
- » Raised planting beds
- » Planting pots
- » Additive for substrates



BIO1



BIO5



PP



Size **LITE-STRIPS** 70 x 12 x 6 mm

Orders Sizes
BOX 250 l
BOX 60 l
BOX 5 x 50 l
BIG BAG 1 m³

Recommended quantity:

| | |
|-----------------------------|-------------------------------------|
| Trees & bushes | 10 - 20 liters per pit |
| Lawns | 0,5 - 1,0 liters per m ² |
| Roof | 1 - 2 liters per m ² |
| Trough planters | 5 - 10 liters per m |
| Raised planting beds & pots | 5 - 10 % of volume |

LITE-NET

Water distribution net

The **LITE-NET** non-woven nets with a high water- and air conducting performance supply plant roots similar to veins.

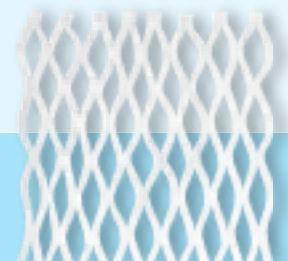
The nets are simply laid out on the ground, pulled apart to 3 to 5 times in the width and covered with soil to the depth of the roots.

They can also be raised to the surface in places (e.g., root balls), where they allow direct absorption of air and water, then distribute it over a large area at the root level.

The flexible and easy-to-install water distribution and storage net can be used close to the roots and efficiently at any level, as roots can easily grow through the open net structure and dock all around.

Applications

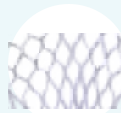
- » Trees
- » Lawns, lawn grids
- » Slopes
- » Green roofs
- » Athletic fields
- » Filter basins
- » Orchards
- » Planters and raised planting beds



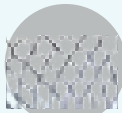
BIO1



BIO5



PP



Sizes

| | | |
|--|--------------------------------------|---------------|
| LITE-NET Tree | L 90/20/6 x 3 pcs. | 1,5 x 0,8 m |
| | For root balls up to max. Ø 60/65 cm | |
| XL | 45/8/4 x 2 pcs. | 1,75 x 1,6 m |
| | For root balls from approx. Ø 60 cm | |
| LITE-NET Slope (Roll C14 = Meshes Ø 9 cm) | 50 m ² | 3,5 x 14,3 m |
| | 75 m ² | 5,2 x 14,3 m |
| LITE-NET Standard (Roll C20 = Meshes Ø 13 cm) | 28 m ² | 1,75 x 16,3 m |
| | 57 m ² | 3,5 x 16,3 m |
| | 85 m ² | 5,2 x 16,3 m |

BLUELITE-NET

The active underground irrigation

The **BLUELITE-NET** system is a completely novel and technically improved solution for water-saving subsurface irrigation for e.g. trees or sports fields.

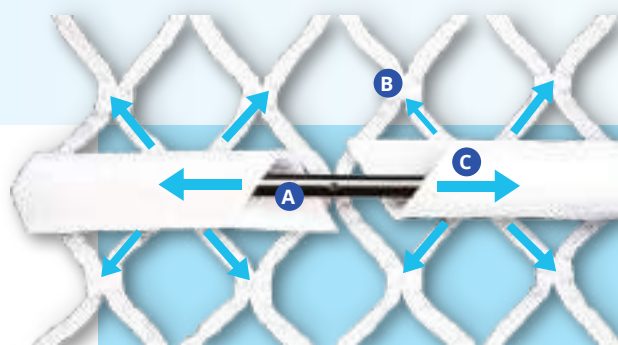
The combination consists of a non-woven covered drip irrigation tube **A** that is placed directly on a water distribution net **B**. Substrate is applied over it at root depth.

The water from the flexible irrigation tube is evenly released via the non-woven covering **C** into the LITE-NET below, where it is distributed over a large area in the root zone.

In the process the water and earth contact area is multiplied a thousandfold. The robust nonwoven covering protects the tube openings against root intrusion and blockage by soil fines.

The underground irrigation reduces evaporation, felting, waterlogging and also soil surface treatment costs. Irrigation is possible at any time and continuously, even if the lawn is being used or mowed. Up to 70% water is saved in comparison to spray irrigation.

Due to the open and flexible shape of the net, roots can grow through and dock all around the thick nonwoven net. This means that 100 % of the water stored in the capillary net is available to the plants. Since the system can be installed at any depth, plants can be optimally supplied even in the initial growth phase or in mixed crops optimally supplied with water.



PP



Tubes

| | |
|-----------------------|-----------------|
| BLUELITE-COVER | 25 m |
| BLUELITE-TUBE | 100 m |
| BLUELITE-AGRI | 100 m |
| BLUELITE-RING | 10 pcs. Ø 50 cm |

+

LITE-NET PP

| | | | thickness mm |
|-------------|-------------------|---------------|-----------------|
| Roll C20 | 28 m ² | 1,75 x 16,3 m | 5 |
| | 57 m ² | 3,5 x 16,3 m | 5 |
| | 85 m ² | 5,2 x 16,3 m | 5 |

Applications

- » Trees
- » Slopes
- » Green roofs
- » Athletic fields
- » Lawns
- » Agriculture



Green roof



Individual parts explained in more detail on the following page

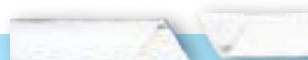
BLUELITE-COVER

The nonwoven covering for the protection of drip irrigation tubes

Part of the BLUELITE-NET system

The **BLUELITE-COVER** serves as a protection for the irrigation tube. In addition the robust nonwoven covering distributes the water linearly along the tube thereby increasing the water and soil contact area a thousandfold and protecting the tube openings against root intrusion and also against clogging by soil fine parts.

A wide variety of irrigation tubes can be inserted into this nonwoven covering.



PP



BLUELITE-COVER 25 m

BLUELITE-RING

The efficient subsurface irrigation for trees

Part of the BLUELITE-NET system for trees

For new tree plantings the **BLUELITE-RING** (a nonwoven covered irrigation tube) is combined with a LITE-NET growing net in the subsurface layer. Thus, water is being effectively and evenly transferred to the roots. For the existing trees the BLUELITE-RING is routed around the trunk at a depth of approx. 5-10 cm and connected with a spur line.

Other advantages: No clogging of irrigation holes by roots or fine parts. No vandalism or UV damage. The escaping water is being distributed by capillary action in the nonwoven covering and irrigates the surrounding area evenly over a very large contact area.



PP



BLUELITE-RING 10 pcs. Ø 50 cm

BLUELITE-TUBE

Pipe for drip irrigation with protective nonwoven covering

Part of the BLUELITE-NET system

The combination consists of a protective nonwoven covering (**BLUELITE-COVER**) and a 16 mm drip irrigation tube inside.



PP



BLUELITE-TUBE 100 m

BLUELITE-AGRI

Pipe for drip irrigation with protective nonwoven covering

Part of the BLUELITE-NET system

Our cost-effective underground irrigation system **BLUELITE-AGRI** consists of a nonwoven protected irrigation tube, which is usually laid in the ground without a distribution net. It was specially designed for the agricultural sector, such as vineyards, fields, plantations of vegetable and fruit.



PP



BLUELITE-AGRI 100 m

LITE-ROOTPROTECT

The biodegradable root protection



Most of the damage on trees occurs at building sites. Although the protection of trees is prescribed by numerous laws and standards, roots are still frequently torn off and damaged by construction vehicles, resulting in enormous consequential damage.

By using the new root bandage **LITE-ROOTPROTECT** the exposed tree roots can not only be protected from sun and damage but also be kept permanently moist.

The 80/120 cm wide **LITE-ROOTPROTECT M/L** can be optimally used as a root barrier. It holds water many times better than conventional nonwovens for sites or jute mats. Together with our nonwoven covered drip irrigation tube on the top edge moisturizing the soil can also be automatic.

As the 4 mm thick **LITE-ROOTPROTECT** is 100% biodegradable, it does not have to be removed after completion of construction and can be covered with soil.



©Die Baumtankstelle GmbH



©Die Baumtankstelle GmbH



BIO1



BOX 16/8 pcs. Roll 0,1 x 8,0 m

Roll M 0,8 x 20 m

Roll L 1,2 x 20 m

SALFIX-MAT

The filter mat protector against road salt

The new **SALFIX-MAT**, a water-permeable filter mat, binds road salt for a long time and thus prevents tree damage and soil compaction. Trees survive the winter sustainably, avoiding expensive new plantings. Simply place a mat on the left and right of the trunk in the tree disc, creating a filter area of 2.0 x 2.0 or 3.0 x 3.0 m.

The 3-layer **SALFIX-MAT** consists of an ion exchange mixture packed between 2 robust filter fleeces. The salt is separated from the water and chemically bound in the aquatic textile.



PP



SALFIX-MAT 1 x 2 m



LITE-CUBES

For hydroseeding, green roofs, growing pots and aerification

As a small-cube special form, **LITE-CUBES** is available as an aggregate for substrates, e.g. for spray greening in **Bio1**, for green roofs in **PP** and for seed pots in **Bio1**.

For aerification, **LITE-CUBES Bio5** are swept into the aerification holes together with sand. This novel variant offers many years of benefit.



BIO1

BIO5

PP



Size **LITE-CUBE** 12 x 12 x 6 mm

Order sizes BOX 250 l
BIG BAG 1 m³



LITE-NET Air & Water for healthy trees

1

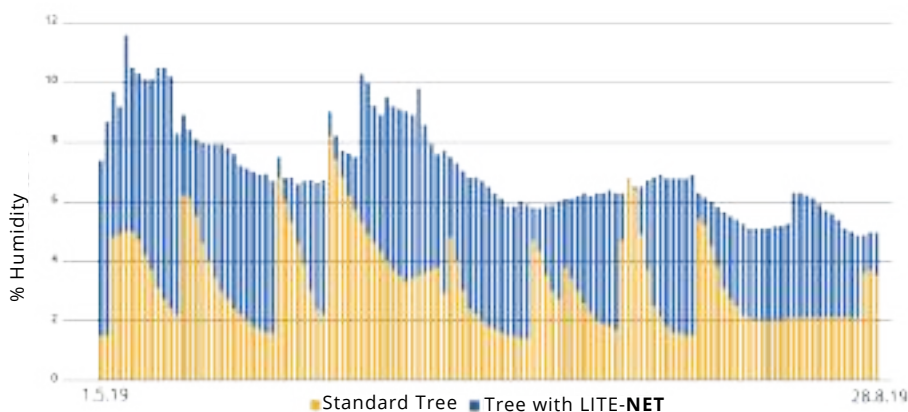
The LITE-NET tree supply system quickly absorbs even small amounts of surface water and directs it directly to the deepest roots. The roots take up the water stored in the network when needed, while additional air is transported from the surface to the roots.

The 2-part system consists of a felt net wrapped around the root ball (**vegetation net 1**) and another felt net that is inserted horizontally under the root ball (**distribution net 2**).

Especially in summer, when most of the rains are not very abundant and the soil is dry, often only the uppermost layer of the soil gets wet. Even when watering bags are used, the water does not even reach the roots.

In contrast, the 6 mm thick **vegetation net** receives the water very quickly and distributes it over a large area around the root ball. Due to the open shape of the network, even large roots can grow freely, attach to it everywhere and extract 100% of the stored water.

The water transported to the depths is also stored in the surrounding soil. A Dutch study showed that soil moisture in trees with the LITE-NET system is on average twice as high as without it. During times of drought, the soil moisture in the root area is even **3 times higher**, which makes a clear difference.



2

Due to the highly effective use of water (does not stay in the root ball, does not evaporate on the surface, etc.), irrigation intervals can be significantly extended and trees survive better even in dry periods. An investment in the LITE-NET system is profitable and pays for itself in a short time.

Vegetation nets are also the ideal underground addition to sacks and irrigation bags.

The **vegetation net** around the root ball is available in 2 standard sizes (**L** - for root balls up to max. Ø 60/65 cm, **XL** - for root balls from approx. Ø 60 cm), material variants are often used 100% biodegradable in **Bio1** or **Bio5**, for the **distribution net** and for the **tree pit net**, the longer-lasting variants in **Bio5** or **PP**.

The **distribution net** inserted horizontally directly below of the root ball (**XL**) conducts the water across the width of the capillary and serves as storage of it, promoting the deep growth of the roots and increasing tree stability.

It is also possible to insert a **net** of large **tree pits** (3, cut individually from a LITE-NET roll). This guarantees supply to long term of the roots after the growth phase.

BIO1

BIO5

PP



Sizes

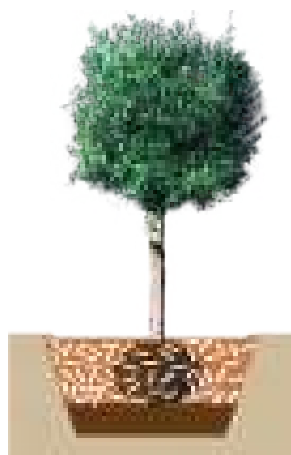
| | | |
|---------------|--------------------------------------|--------------|
| LITE-NET Tree | L 90/20/6 x 3 pcs. | 1,5 x 0,8 m |
| | For root balls up to max. Ø 60/65 cm | |
| | XL 45/8/4 x 2 pcs. | 1,75 x 1,6 m |
| | For root balls from approx. Ø 60 cm | |

| | | |
|------------------------------|-------------------|---------------|
| Roll C20 (Meshes Ø 13 cm) | 28 m ² | 1,75 x 16,3 m |
| | 57 m ² | 3,5 x 16,3 m |
| | 85 m ² | 5,2 x 16,3 m |

LITE-STRIPS Substrate improvement with water reservoirs close to the roots

It is recommended to mix approx. 10-20 l LITE-STRIPS into the substrate close to the roots per each replanting measure.

LITE-STRIPS consist of up to 90% pores in which water is stored on site. They increase the water storage capacity and the permeability of the substrate.



Size LITE-STRIPS 70 x 12 x 6 mm

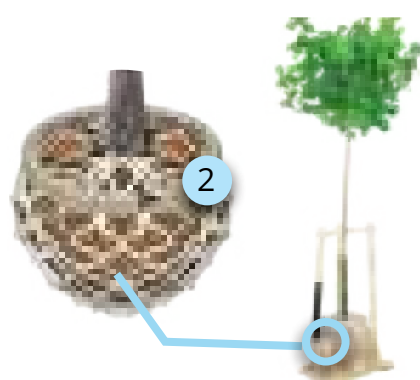
Order sizes
BOX 250 l
BOX 60 l
BOX 5 x 50 l
BIG BAG 1 m³

BLUELITE-NET Maintenance-free watering system

The novel **BLUELITE-NET** system is perfectly suited for automatic and cost-saving watering of trees. For this purpose, a nonwoven protected irrigation pipe (**BLUELITE-RING**) is usually routed underground around the trunk and connected to a spur line.

The stable and voluminous nonwoven covering protects the irrigation pipe against clogging by fine particles or roots growing inside. In addition, the UV-stabilized nonwoven cover mechanically reinforces against vandalism and evenly distributes the irrigation water.

For new plantings the irrigation ring is installed in combination with a **vegetation net**, for existing trees without any.



PP



BLUELITE-COVER WITH/WITHOUT TUBE

| | |
|----------------|-----------------|
| BLUELITE-COVER | 25 m |
| BLUELITE-TUBE | 100 m |
| BLUELITE-RING | 10 pcs. Ø 50 cm |

+

| Roll C20 | LITE-NET PP | | thickness mm |
|-------------|-------------|---------------|-----------------|
| | 28 m² | 1,75 x 16,3 m | 5 |
| | 57 m² | 3,5 x 16,3 m | 5 |
| | 85 m² | 5,2 x 16,3 m | 5 |

Explained in more detail on page 5

LITE-ROOTPROTECT

Explained in more detail on page 7

SALFIX-MAT

Explained in more detail on page 7



Water storage hybrid turf, subsurface irrigation

For athletic fields and lawns, LITE-STRIPS can be used as substrate enhancement and water storage near the root, the large-area LITE-NET for storage and distribution, and the water-saving underground irrigation system BLUELITE-NET.

LITE-NET



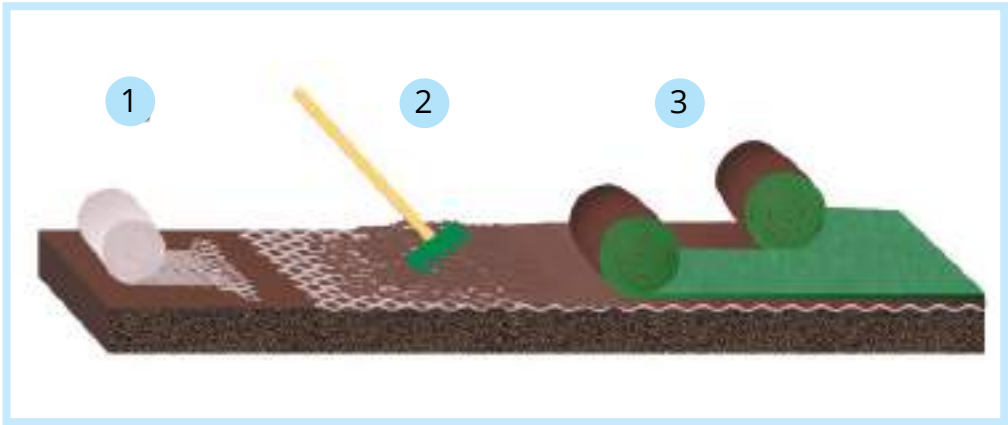
1

LITE-NET: The large-area nets for air and water distribution made of tension-resistant storage nonwovens (up to 90% pore content) are optimally installed in new construction or retrofitted in smaller areas such as gate rooms at root depth. Due to the open shape of the mesh, the load is transferred to the subsoil via the soil structure in the spaces between the meshes.

There can also be no fine-particle sealing and sliding layer as with full-area geotextiles. Roots can easily grow through the 13 cm mesh openings, anchor themselves to the mesh all around and, if necessary, use all the water stored in the mesh.



2



BIO1



BIO5



PP



Roll C20
(Meshes Ø 13 cm)

| | |
|-------------------|---------------|
| 28 m ² | 1,75 x 16,3 m |
| 57 m ² | 3,5 x 16,3 m |
| 85 m ² | 5,2 x 16,3 m |

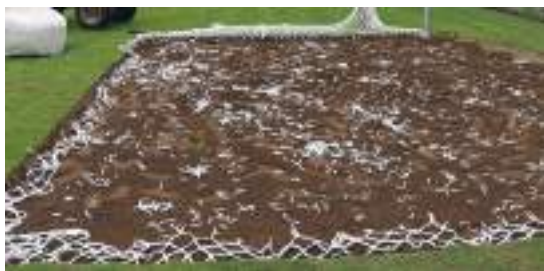
LITE-STRIPS

LITE-STRIPS: Reduce water consumption and rapidly transfer air and water from the surface to the roots. This creates a type of permanent aerification with reduced soil compaction and surface felting.

LITE-STRIPS do not only improve the stability of the base layer due to their thread structure. They can also rapidly absorb water in their pore structure, thus reducing harmful excess of pore water pressure under load. In addition, the base course

becomes more permeable and the water storage capacity increases significantly.

LITE-STRIPS can be mixed into the substrate at root depth both in new construction and subsequently (e.g., by means of slot drainage). Approx. 0.5 - 1.0 l of **LITE-STRIPS** per m² are recommended. To improve the initial vegetation of turf, approx. 0.5 l/m² is required in **Bio1**. **LITE-STRIPS** are available in 3 material variants: biodegradable (**Bio1** and **Bio5**) or permanent in **PP**.



BIO1



BIO5



PP



Size **LITE-STRIPS**

70 x 12 x 6 mm

Order sizes

BOX 250 l

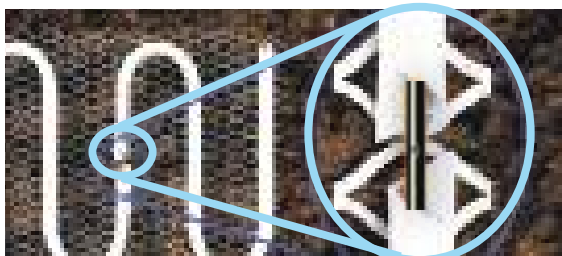
BOX 60 l

BOX 5 x 50 l

BIG BAG 1 m³

BLUELITE-NET

BLUELITE-NET: The **LITE-NET** nonwoven net can be combined with nonwoven protected drip tubes laid directly on top of it to form a technically improved, cost-effective and water-saving underground irrigation system. The robust nonwoven covering of the drip tubes, which is laid at root depth at a distance of approx. 60 cm, distributes the water, prevents roots from growing inside and fine-part clogging and increases the contact area between soil and water a thousandfold. Athletic fields can also be played on or mowed during irrigation. For details see page 7.



PP



BLUELITE-COVER WITH/WITHOUT TUBE

BLUELITE-COVER

25 m

BLUELITE-TUBE

100 m

+

LITE-NET PP

thickness
mm

| | | | |
|-------------|-------------------|---------------|---|
| Roll C20 | 28 m ² | 1,75 x 16,3 m | 5 |
| | 57 m ² | 3,5 x 16,3 m | 5 |
| | 85 m ² | 5,2 x 16,3 m | 5 |

LITE-NET



LITE-NET to support initial growth
(picture taken from above)

The LITE-NET is ideal for slope greening and as erosion protection. For the initial growth phase they are laid above ground, for permanent use they are laid underground.

For start-up revegetation, the 100% biodegradable LITE-NET variants **Bio1** or **Bio5** are simply laid out on the slope surface, fastened and ideally covered by hydroseeding. Since the large-area non-woven nets have a very high-water storage capacity - 6 times higher than coir mats - plants are optimally supplied with collected and stored rainwater. According to studies by the University of Natural Resources and Life Sciences, Vienna, this also improves the greening effect by 50%.

The extremely flexible nonwoven nets adapt perfectly to the subsoil, thereby forming a stable micro relief parallel to the slope and thus reducing erosion. Due to the good interlocking, the LITE-NET requires little fastening. In addition, the net shape is storm-proof, unlike full-surface mats. On steeper slopes, the water storage nets can be easily secured with standard ground hooks. Also due to the meander effect, the water storage capacity is additionally increased compared to full-surface mats, since water cannot run off in a fall line. Plant growth is promoted by direct light penetration and additional plants can be easily inserted in the net gaps.

RECOMMENDED INSTALLATION

FREE LAYING

 $h + v$


EARTH HOOKS

 $h + v$


from
approx.
30° slope

EMBEDDING TRENCH

 v


from
approx.
45° slope

Laying directions:

 h

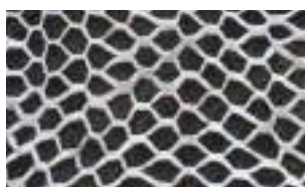
horizontal


 v

vertical



Coir mat after 3 months



LITE-NET after 3 months



BIO1



BIO5



| | | | thickness mm |
|----------------------------|-------------------|--------------|-----------------|
| LITE-NET Slope Roll C14 | 50 m ² | 3,5 x 14,3 m | 4/6 |
| (Meshes Ø 9 cm) | 75 m ² | 5,2 x 14,3 m | 4/6 |

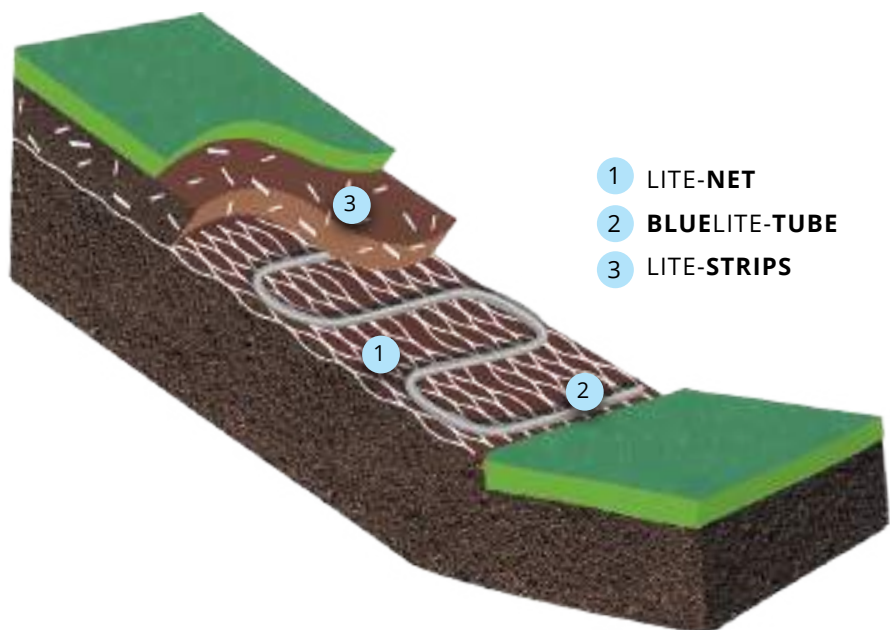
LITE-NET

For long-term slope greening, the long-lasting LITE-**NET** variants **Bio5** or **PP** are laid at root depth (approx. 10-15 cm for grass). Due to the improved plant growth and because the roots grow through the net openings and anchor themselves to the net, large-scale surface stabilization is created. Water is evenly distributed in the net and stored close to the roots.

For subsurface slope irrigation, nonwoven protected drip irrigation tubes (**BLUELITE-TUBE**) are laid directly onto the LITE-**NET** situated at the root depth across the direction of fall. With the **BLUELITE-NET** combination, slopes are irrigated effectively, economically, without vandalism, permanently and without evaporation. The open net form does not create a sliding plane, on the contrary, the stability of the slope is supported.

LITE-STRIPS

In order to quickly get water running off the slope surface into the subsoil, additional LITE-**STRIPS** can be mixed into the soil. These make the soil more permeable to air, store water directly at the roots and stabilise the topsoil cover like tensile inserts.



- 1 LITE-**NET**
- 2 **BLUELITE-TUBE**
- 3 LITE-**STRIPS**

1

BIO5

PP



LITE-NET****

| | | | thickness mm |
|------------------------------|-------------------|--------------|-----------------|
| LITE- NET Standard | 57 m ² | 3,5 x 16,3 m | 5/6 |
| Roll C20 (Meshes Ø 13 cm) | 85 m ² | 5,2 x 16,3 m | 5/6 |

2

+

BLUELITE-COVER** WITH/WITHOUT TUBE**

| | |
|-----------------------------------|-------|
| BLUELITE-COVER (PP) | 25 m |
| BLUELITE-TUBE | 100 m |

3

+

BIO5

PP



Size LITE-**STRIPS** 70 x 12 x 6 mm

| | |
|-------------|--------------------------|
| Order sizes | BOX 250 l |
| | BOX 60 l |
| | BOX 5 x 50 l |
| | BIG BAG 1 m ³ |



LITE-STRIPS

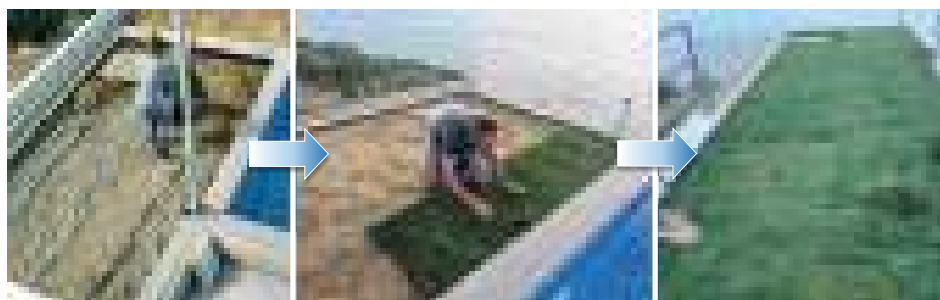
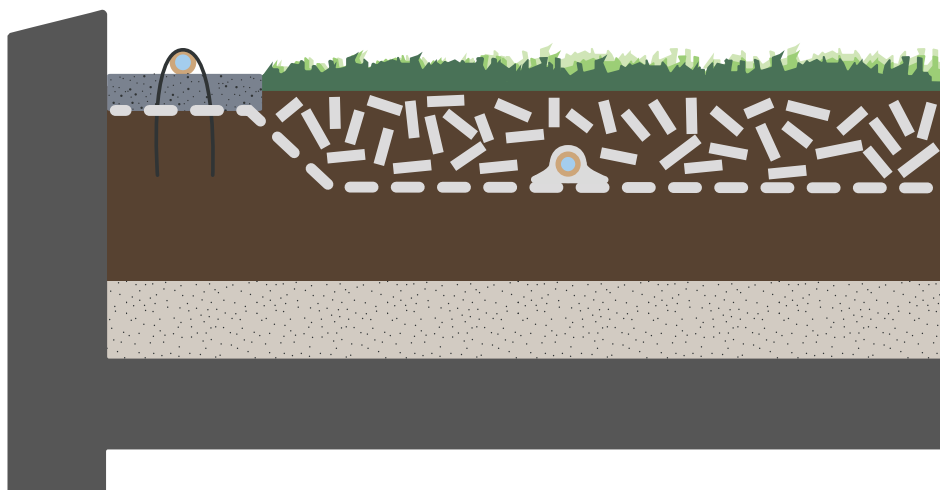
For green roofs, one important feature of all **LITE-SOIL** products comes into its own: their very low weight.

Since our water storage nonwovens in strip and net form consist of approx. 90% open and interconnected air pores, they can absorb about 8 times as much water per kg as conventional products (e.g. porous clay pellets).

Depending on the thickness, approx. 1-2 l/m² mixed into the substrate, **LITE-STRIPS PP** absorb water from the surface into the substrate and function permanently as additional water storage at root depth as well as a soil loosener.

By additionally laying a **LITE-NET** as rooting water storage at root depth, underground irrigation including aeration can be carried out very easily. The water is distributed over a large area in the net and directed exactly where it is needed. Thanks to the open and flexible shape of the net, roots can dock onto the nonwoven net all around and thus extract 100% of the water stored in the net (up to 10 l/m² depending on the variant) if required.

In addition to anchoring the roots of the individual plants, the **LITE-NET** can also be fixed to the subsoil, thereby preventing the so-called detachment of extensive greenery or the slipping of sloping roof greenery.



BLUELITE-NET

In addition, with the cost-effective **BLUELITE-NET** system, evaporation-free underground irrigation is possible at any time and continuously, even if the roof terrace is being used. If the plant substrate is hydraulically pumped, the smaller **LITE-CUBES PP** can be premixed as an additional water reservoir.

LITE-STRIPS PP



LITE-NET PP



Size LITE-STRIPS

70 x 12 x 6 mm

Order sizes

BOX 250 l

BOX 60 l

BOX 5 x 50 l

BIG BAG 1 m³

PP



BLUELITE-COVER WITH/WITHOUT TUBE

BLUELITE-COVER

25 m

BLUELITE-TUBE

100 m



LITE-NET PP

thickness
mm

| | | | |
|-------------|-------------------|---------------|---|
| Roll C20 | 28 m ² | 1,75 x 16,3 m | 5 |
| | 57 m ² | 3,5 x 16,3 m | 5 |
| | 85 m ² | 5,2 x 16,3 m | 5 |

BLUELITE-NET

By installing our cost-effective **BLUELITE-NET** irrigation system underground (see page 7), there is no evaporation loss, UV damage, surface felting, damage caused by bites or vandalism. Due to the targeted supply close to the roots, not only water but also fertilizer can be saved.

The drip irrigation pipes, which can be laid at any depth, are protected against roots growing inside and clogging by soil fines by means of a robust nonwoven covering. In addition, the water is evenly distributed in the nonwoven and the water/soil contact area is increased a thousandfold. The flexible **BLUELITE-TUBE** is used for curved laying, and our cost-effective **BLUELITE-AGRI** for straight laying. The tubes can also be installed subsequently, e.g. by means of slot drains.



BLUELITE-AGRI for existing orchards

LITE-NET + LITE-STRIPS

For large-scale irrigation, the nonwoven protected irrigation pipe is combined with an easy-to-assemble LITE-NET PP distribution non-woven.

In addition, the water-storing and substrate-improving LITE-STRIPS or vegetation nets for trees can also be used.



BLUELITE-NET for new plantings

A LITE-NET **B** BLUELITE-TUBE **C** LITE-STRIPS

BIO1



BIO5



PP



LITE-STRIPS

Size LITE-STRIPS 70 x 12 x 6 mm

Order sizes
BOX 250 l
BOX 60 l
BOX 5 x 50 l
BIG BAG 1 m³

BLUELITE-NET

BLUELITE-COVER 25 m

BLUELITE-TUBE 100 m

BLUELITE-AGRI 100 m

BLUELITE-RING 10 pcs. Ø 50 cm

+

LITE-NET

| | | | thickness mm |
|-------------|-------|---------------|-----------------|
| Roll C20 | 28 m² | 1,75 x 16,3 m | 5/6 |
| | 57 m² | 3,5 x 16,3 m | 5/6 |
| | 85 m² | 5,2 x 16,3 m | 5/6 |



LITE-NET + LITE-STRIPS

For trough planters, about 5-10% by volume and for raised planting beds 5-10 l/m² of the extremely water retentive **LITE-STRIPS** is mixed into the soil. This improves the mixture and makes it more permeable. The water stored in the approx. 7 cm long non-woven strips is 100% available to the roots when needed and watering intervals are increased. **LITE-STRIPS** can also not be overwatered, they are ideal for peat-free soil. 1 kg of **LITE-STRIPS** store up to 10 l of water.

The cost-effective **LITE-STRIPS** are available in 3 different materials. There is a durable and often reusable **PP** version, a **Bio5** (5-10 years) and a **Bio1** (1-2 years).

Prefabricated **LITE-NET** nonwoven nets can also be installed for better water and air distribution. The thick nonwoven nets consist of approx. 90% air pores and can store water very well and use their capillary action.



LITE-NET



LITE-STRIPS



LITE-STRIPS

BIO1



BIO5



PP



Size **LITE-STRIPS**

70 x 12 x 6 mm

Order sizes

BOX 250 l

BOX 60 l

BOX 5 x 50 l

LITE-NET

BIO1



BIO5



PP



LITE-NET Tree

L 90/20/6 x 3 pcs. 1,5 x 0,8 m
For root balls up to max. Ø 60/65 cm

XL 45/8/4 x 2 pcs. 1,75 x 1,6 m
For root balls from approx. Ø 60 cm

APPLICATIONS

SPECIAL APPLICATIONS

- aerification
- cultivation pots
- site protection
- tree nurseries
- tree root aeration
- landfills
- railroad embankments
- drainage
- erosion control
- driveways and sidewalks

- cemetery planting
- surface drainage
- filter basins
- lawns and turf
- side roads
- parking areas
- constructed wetlands
- plantations
- grass pavers
- riding arenas

- spray greening
- ski slopes
- dams
- road salt protection
- bank protection
- vegetation and supporting layer
- infiltration basins
- viticulture
- desert greening



PRODUCT RECOMMENDATIONS

| | TREES | | | | SLOPES | | | ATHLETIC FIELDS & LAWNS | | | FRUIT & VITICUL- TURE | | GREEN ROOFS | | RAISED PLANTING BEDS & TROUGH PLANTERS | | |
|----------------------|---------|-----------|------------|---------------------------------|---------|-----------|------------|----------------------------|-----------|------------|-----------------------------|------------|----------------|------------|---|-----------|------------|
| | GROWING | LONG-TERM | IRRIGATION | LARGE TREE TRANS- PLANTATION | GROWING | LONG-TERM | IRRIGATION | GROWING | LONG-TERM | IRRIGATION | LONG-TERM | IRRIGATION | LONG-TERM | IRRIGATION | 1 YEAR | LONG-TERM | IRRIGATION |
| LITE-STRIPS | | | | | | | | | | | | | | | | | |
| Bio1 | ● | | | | ● | | | ● | | | | | | | ● | | |
| Bio5 | ● | ● | ● | | ● | ● | | ● | ● | | ● | | | | | ● | ● |
| PP | | ● | ● | | | ● | ● | | ● | ● | ● | ● | ● | ● | | ● | ● |
| LITE-NET TREE | | | | | | | | | | | | | | | | | |
| Bio1 | ● | | | ● | | | | | | | | | | | ● | | |
| Bio5 | ● | ● | ● | ● | | | | | | | ● | | | | | ● | ● |
| PP | | ● | ● | ● | | | | | | | ● | | | | | ● | ● |
| LITE-NET C14 | | | | | | | | | | | | | | | | | |
| Bio1 | | | | | ● | | | | | | | | | | ● | | |
| Bio5 | | | | | ● | ● | | | ● | | | | | | | ● | |
| LITE-NET C20 | | | | | | | | | | | | | | | | | |
| Bio1 | ● | | | ● | | | | ● | | | | | | | ● | | |
| Bio5 | ● | ● | | ● | | ● | | ● | ● | | ● | | ● | | | ● | ● |
| PP | | ● | ● | ● | | ● | ● | | ● | ● | ● | ● | ● | ● | | ● | ● |
| BLUELITE-NET | | | | | | | | | | | | | | | | | |
| COVER | | | ● | | | | ● | | | ● | | ● | | ● | | | ● |
| TUBE | | | ● | | | | ● | | | ● | | ● | | ● | | | ● |
| RING | | | ● | | | | | | | | | ● | | | | | ● |

TECHNICAL CHARACTERISTICS

Our products are made of long-time proven nonwovens, which are optimized for any type of soil. Up to 90% of the volume consists of interconnected air pores, which can store water and redistribute it by capillary action. All the water is thus immediately available to plants. Our products are available in 3 different materials:

| | | weight | thickness |
|------|---|----------------------|-----------|
| BIO1 | WOOD FIBER (100% cellulose fibers) 100% biodegradable after about 1-2 years | 330 g/m ² | 4 mm |
| | | 600 g/m ² | 6 mm |
| BIO5 | PLA (70% PLA + 30% cellulose fibers) 100% biodegradable/compostable after approx. 5-10 years | 500 g/m ² | 6 mm |
| PP | PP (100% polypropylene fibers) durable, reusable and sustainable | 360 g/m ² | 3 mm |
| | | 600 g/m ² | 5 mm |

| Standard products overview | | | Bio1 | | Bio5 | PP | |
|--|--------------------------------------|----------------------|------|------|------|------|------|
| | | | 4 mm | 6 mm | 6 mm | 3 mm | 5 mm |
| LITE-STRIPS * | Units | Weight in Kg approx. | | | | | |
| 70 x 12 mm | 1 m ³ BB | 50/45/50 | | X | X | | X |
| 70 x 12 mm | 5 x 50 l Box | 12/11/12 | | X | X | | X |
| 70 x 12 mm | 250 l Box | 12/11/12 | | X | X | | X |
| 70 x 12 mm | 60 l Box | 3,8/3,5/3,8 | | X | X | | X |
| LITE-CUBES | | | | | | | |
| 12 x 12 mm | 1 m ³ BB | 60/55/60 | | X | X | | X |
| 12 x 12 mm | 250 l Box | 15/13/15 | | X | X | | X |
| LITE-NET ** L - For root balls up to max. Ø 60/65 cm XL - For root balls from approx. Ø 60 cm | | | | | | | |
| LITE-NET Tree | | | | | | | |
| L: 1,5 x 0,8 m | 90 pcs. Box | 19/16/19 | | X | X | | X |
| L: 1,5 x 0,8 m | 6 x 3 pcs. Box | 4,8/4,1/4,8 | | X | X | | X |
| L: 1,5 x 0,8 m | 20 pcs. Box | 5,2/4,5/5,2 | | X | X | | X |
| XL: 1,75 x 1,6 m | 45 pcs. Box | 19/16/19 | | X | X | | X |
| XL: 1,75 x 1,6 m | 8 pcs. Box | 4/4,8 | | | X | | X |
| XL: 1,75 x 1,6 m | 4 x 2 pcs. Box | 4/4,8 | | | X | | X |
| LITE-NET Slope (Roll C14 = meshes Ø 9 cm) | | | | | | | |
| 350: 3,5 x 14,3 m | 50 m ² | 7/12/10 | X | X | X | | |
| 520: 5,2 x 14,3 m | 75 m ² | 10/17/14 | X | X | X | | |
| LITE-NET Standard (Roll C20 = meshes Ø 13 cm) | | | | | | | |
| 175: 1,75 x 16,3 m | 28 m ² | 6/5/6 | | X | X | | X |
| 175: 1,75 x 16,3 m | 3 pcs. á 28 m ² | 18/15/18 | | X | X | | X |
| 350: 3,5 x 16,3 m | 57 m ² | 10/11 | | | X | | X |
| 520: 5,2 x 16,3 m | 85 m ² | 14/16 | | | X | | X |
| BLUELITE-NET COMPONENTS | | | | | | | |
| BLUELITE-COVER | 25 m (16 pcs. of 25m in a 25kg box)) | | | | | X | |
| BLUELITE-TUBE | 100 m | 14 | | | | X | |
| BLUELITE-RING | 10 pcs. á Ø 50 cm | 4 | | | | X | |
| BLUELITE-NET SYSTEM: LITE-NET Standard Roll PP C20 + BLUELITE-TUBE | | | | | | | |
| BLUELITE-NET SYSTEM | 55 m ² | 25 | | | | | X |
| BLUELITE-NET SYSTEM | 85 m ² | 38 | | | | | X |
| BLUELITE-NET SYSTEM | 1200 m ² | | | | | | X |
| LITE-ROOTPROTECT | | | | | | | |
| Root bandage | 8 pcs. á 0,1 x 8 m | 3 | X | | | | |
| Root bandage | 16 pcs. á 0,1 x 8 m | 6 | X | | | | |
| Root curtain M | 0,8 x 20 m | 5 | X | | | | |
| Root curtain L | 1,2 x 20 m | 7 | X | | | | |
| SALFIX-MAT | | | | | | | |
| 4m ² | 2 Stk. 2 x 1 m | | | | | | 8 mm |

* LITE-STRIPS: Bio1 = 50 kg/m³ | Bio5 = 45 kg/m³ | PP = 50 kg/m³

** Specifications are maximum sizes. Recommendation: For optimal results and easier installation, reduce the laying width e.g., instead of 5.2 m only 4 - 4.5 m (area reduction approx. 10 - 15%).

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Awards



Innovation award
GaLaBau
Nuremberg 2022 (DE)



1st prize in the category
environment Young
Entrepreneurs 2020 (AT)



Pioneering award
innovation- iLab 2020



TÜV Science Award in the
category Business Audience
Award 2019 (AT)



Environmental
Award
nominated
Vienna 2019 (AT)



Austrian Patent
award nominated
2018 (AT)



1st prize Flormart
2018 (IT)



AGRI-WATER Challenge
Cape Town 2018
Finalist (ZA)



City of Vienna - New
Building Climate
Protection Award
2018 (AT)



1st prize Myplant
2018 (IT)



Silver Medal
demopark
2017 (DE)



LITE-SOIL GmbH

Neustiftgasse 94/23, 1070 Vienna, Austria
T +43 1 5227310 • **E** office@lite-soil.com • **W** www.lite-soil.com

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