LITE-SOIL

All in ONE: Air-Soil-Water

Tender text trees

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/m²	4 mm
		600 g/m²	6 mm
BIO5	PLA (70% PLA + 30% cellulose fibers) 100% biodegradable/compostable after approx. 5-10 years	500 g/m²	6 mm
PP	PP (100% polypropylene fibers) durable, reusable and sustainable	360 g/m²	3 mm
		600 g/m²	5 mm

Standard products overview			Bio1		Bio5	PP	
			4 mm	6 mm	6 mm	3 mm	5 mm
LITE-**STRIPS**	Units	Weight in Kg: Bio1/Bio5/PP					
70 x 12 mm	1 m³ 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 m³ BB	60/55/60		X	X		X
12 x 12 mm	250 l Box	15/13/15		X	X		X
LITE-**NET** *							
LITE-**NET** Tree	L - For root balls up to max. Ø 60/65 cm XL - For root balls from approx. Ø 60 cm						
L: 1,5 x 0,8 m	90 pcs. Box	23/19/23		X	X		X
L: 1,5 x 0,8 m	18 (6x3) 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	8 (4x2) pcs. Box	4/4,8			X		X
LITE-**NET** Standard (Roll C20 = meshes Ø 13 cm)							
175: 1,75 x 16,3 m	28 m²	6/5/6		X	X		X
175: 1,75 x 16,3 m	3 pcs. á 28 m²	18/14/18		X	X		X
350: 3,5 x 16,3 m	57 m²	10/11			X		X
520: 5,2 x 16,3 m	85 m²	14/16			X		X
520 XL: 5,2 x 25,9 m	275 m²	300					X
BLUELITE-**NET** COMPONENTS							
BLUELITE-**COVER**	16 pcs. á 25 m	25				X	
BLUELITE-**TUBE****	100 m	14				X	
BLUELITE-**RING**	10 pcs. á Ø 50 cm	4				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 M	0,8 x 100 m	236	X				
Root curtain L	1,2 x 20 m	7	X				
Root curtain L	1,2 x 100 m	268	X				
SALFIX-MAT							
4m²	2 Stk. 2 x 1 m					8 mm	

** Drip irrigation tube:
A. Rivulis D5000
B. Rainbird XFD
C. Rainbird XFS

* 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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Trees:

Tender text LITE-**NET,** LITE-**STRIPS,** underground irrigation with **BLUELITE-RING** and **construction site protection** for trees

1. LITE-**NET** (vegetation net, distribution net, rolls):

1.1 LITE-**NET tree**: Pre-assembled vegetation and distribution nets for tree new plantings in 2 sizes and 3 materials;

Water-conducting and -storing nonwoven nets
for wrapping around root balls and/or
for horizontal laying under the root ball.

The LITE-**NET tree** quickly absorbs water on the surface and also and also bring smaller quantities (from short rainfall events or drip irrigation bags) to the deeper roots. There it is stored in the nonwoven net and in the surrounding soil and can be and is 100% available to the roots when needed. When the water is withdrawn from the net, air is sucked in from the surface.





Bio1



Bio5



PP

1.1.1 LITE-**NET tree** Bio1:

Ready-made drainage net for large-scale underground water and air supply of root balls, cut from 100 % **biodegradable** wood-based cellulose needle nonwoven (approx. 600 g/m², thickness approx. 6 mm, pore content/water storage ≥ 85 %, **degradation time approx. 1-2 years**).

Delivery form:

a. LITE-**NET tree** Bio1 L: Rootable nonwoven net with mesh size appr. Ø 10 cm for the wrapping of **root balls Ø up to max. 60/65 cm**, size max. 1,2 m² with appr.1,5 x 0,8 m
b. LITE-**NET tree** Bio1 XL: Rootable nonwoven net with mesh size appr. Ø 13 cm for the wrapping of **root balls Ø = from approx. 60 cm**, size max. 2,8 m² with appr.1,75 x 1,6 m.

1.1.2 LITE-**NET tree** Bio5:

Ready-made drainage net for large-scale underground water and air supply of root balls, cut from 100 % **biodegradable/compostable** PLA needle nonwoven (approx. 70% PLA + 30 % cellulose, approx. 500 g/m², thickness approx. 6 mm, pore content/water storage ≥ 85%, **degradation time approx. 5-10 years**).

Delivery form:

a. LITE-**NET tree** Bio5 L: Rootable nonwoven net with mesh size appr. Ø 10 cm for the wrapping of **root balls Ø up to max. 60/65 cm**, size max. 1,2 m² with appr.1,5 x 0,8 m.
b. LITE-**NET tree** Bio5 XL: Rootable nonwoven net with mesh size appr. Ø 13 cm for the wrapping of **root balls Ø = from approx. 60 cm**, size max. 2,8 m² with appr.1,75 x 1,6 m.

1.1.3 LITE-**NET tree** PP:

Ready-made drainage net for large-scale underground water and air supply of root balls, cut from durable PP needle nonwoven (approx. 600 g/m², UV stabilized, thickness approx. 5 mm, pore content/water storage ≥ 85%, pore opening width < 80 µm (EN ISO 12956), maximum tensile force ≥ 40 kN/m (EN ISO 10319)).

Delivery form:

a. LITE-**NET tree** PP L: Rootable nonwoven net with mesh size appr. Ø 10 cm for the wrapping of **root balls Ø up to max. 60/65 cm**, size max. 1,2 m² with appr.1,5 x 0,8 m.
b. LITE-**NET tree** PP XL: Rootable nonwoven net with mesh size appr. Ø 13 cm for the wrapping of **root balls Ø = from approx. 60 cm**, size max. 2,8 m² with appr.1,75 x 1,6 m.

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1.2 LITE-**NET Standard:**

Roll for the underground air and water supply of trees each in 3 sizes and 3 materials for individual assembly as a vegetation, distribution and tree pit net:



Bio1



Bio5



PP

1.2.1 LITE-**NET Standard** roll Bio1 C 20/6:

Net-shaped water storage nonwoven as vegetation aid, installed underground for conducting, distributing and temporarily storing water and air at the root level, cut from 100 % **biodegradable** wood-based cellulose needle nonwoven (approx. **600** g/m², thickness approx. **6** mm, pore content/water storage ≥ 85 %, **degradation time approx. 1-2 years**). Rootable drainage net with mesh size Ø approx. 13 cm, can be pulled apart to at least 5 times its width.

Delivery form:

a. Bio1 175 C20/6: **Net area max. 28 m²** with appr. 1,75 x 16,3 m.
roll with width appr.0,4 m, length appr.20 m, Ø appr.0,35 m, weight appr. 4,8 kg.
b. Bio1 350 C20/6: **Net area max. 57 m²** with appr. 3,5 x 16,3 m.
roll with width appr.0,8 m, length appr.20 m, Ø appr.0,35 m, weight appr. 9,6 kg.
c. Bio1 520 C20/6: **Net area max. 85 m²** with appr. 5,2 x 16,3 m.
roll with width appr.1,2 m, length appr.20 m, Ø appr.0,35 m, weight appr. 14,4 kg.

1.2.2 LITE-**NET Standard** roll Bio5 C20/6:

Net-shaped water storage nonwoven as vegetation aid, installed underground for conducting, distributing and temporarily storing water and air at the root level, cut from 100 % **biodegradable/compostable** PLA needle nonwoven (approx. 70 % PLA + 30 % cellulose, approx. **500** g/m², thickness approx. **6 mm**, pore content/water storage ≥ 85 %, **degradation time approx. 5-10 years**). Rootable drainage net with mesh size Ø approx. 13 cm, can be pulled apart to at least 5 times the width.

Delivery form:

a. Bio5 175 C20/6: **Net area max. 28 m²** with appr.1,75 x 16,3 m.
roll with width appr.0,4 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 4,0 kg.
b. Bio5 350 C20/6: **Net area max. 57 m²** with appr.3,5 x 16,3 m.
roll with width appr.0,8 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 8 kg.
c. Bio5 520 C20/6: **Net area max. 85 m²** with appr.5,2 x 16,3 m.
roll with width appr.1,2 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 12 kg.

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1.2.3 LITE-**NET Standard** roll PP C20/5:

Net-shaped water storage nonwoven as a **permanent** vegetation aid, installed underground for conducting, distributing and temporarily storing water and air at the root level, cut from PP - needle nonwoven (approx. **600** g/m², UV stabilized, thickness approx. **5 mm**, pore content/water storage ≥ 85%, pore opening width < 80 µm (EN ISO 12956), maximum tensile force ≥ 40 kN/m (EN ISO 10319)). Rootable drainage net with **mesh size Ø approx. 13 cm**, can be pulled apart to at least 5 times the width.

Delivery form:

a. PP 175 C20/5: **Net area max. 28 m²** with appr.1,75 x 16,3 m.
roll with width appr.0,4 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 4,8 kg.
b. PP 350 C20/5: **Net area max. 57 m²** with appr. 3,5 x 16,3 m.
roll with width appr.0,8 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 9,6 kg.
c. PP 520 C20/5: **Net area max. 85 m²** with appr. 5,2 x 16,3 m.
roll with width appr.1,2 m, length appr. 20 m, Ø appr.0,35 m, weight appr. 14,4 kg.
d. PP 520 X20/5 XL: **Net area max. 275 m²**, appr. 5.2 × 52.9 m. Roll with a width of appr. 1.2 m, length appr. 65 m, diameter appr. 0.35 m, weight appr. 14.4 kg**.**

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2. LITE-**STRIPS:**

As a substrate enhancer and water storage close to the roots in 3 material variants, 1kg stores up to 10 L of water:





Bio1



Bio5



PP

2.1 LITE-**STRIPS** Bio1:

Water storage nonwoven in strip form (approx. 70/12/6 mm) into for mixing into the soil for irrigation of new tree plantations close to the roots and for improving substrate permeability as well as against compaction, cut from 100 % **biodegradable** wood-based cellulose needle non-woven (approx. 600 g/m², thickness approx. 6 mm, pore content/water storage ≥ 85 %, water storage capacity up to approx. 10 l/kg, **degradation time approx. 1-2 years**). Appr. 10-20 l per tree pit.

Delivery form: 5 x 50l, 250l or 1000l (appr.50kg)

2..2 LITE-**STRIPS** Bio5:

Water storage nonwoven in strip form (approx. 70/12/6 mm) into for mixing into the soil for irrigation of new tree plantations close to the roots and for improving substrate permeability as well as against compaction, cut from 100 % **biodegradable/compostable** PLA needle nonwoven (approx. 70% PLA + 30 % cellulose, approx. 500 g/m², thickness approx. 6 mm, pore content/water storage ≥ 85%, water storage capacity up to approx. 10 l/kg, **degradation time approx. 5-10 years**). Appr. 10-20 l per tree pit.

Delivery form: 5 x 50l, 250l or 1000l (appr.45 kg)

2.3 LITE-**STRIPS** PP:

Water storage nonwoven in strip form (approx. 70/12/5 mm) into for mixing into the soil for irrigation of new tree plantations close to the roots and for improving substrate permeability as well as against compaction, cut from **durable** PP needle-punched nonwoven (approx. 600 g/m², UV stabilized, thickness approx. 5 mm, pore content/water storage ≥ 85%, water storage capacity up to approx. 10 l/kg, pore opening width < 80 µm (EN ISO 12956), maximum tensile strength ≥ 40 kN/m (EN ISO 10319)). Appr. 10-20 l per tree pit.

Delivery form: 5 x 50l, 250l or 1000l (appr.50 kg)

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3. **BLUE**LITE-**RING**:

For effective, uniform, protected and long-term underground irrigation.
For new plantings in combination with LITE-**NET tree**.



3.1 **BLUE**LITE-**RING:** Ready-made for trees

BLUELITE-**RING**: Nonwoven-covered irrigation tube (Rivulis D5000 PCAS hose with 16 mm (13.8 / 15.83 mm), 0.5 - 3.5 bar, 40 mil (1.02 mm), 1.5 l/h, 30 cm dripper distance) with water distribution function made of durable PP needle nonwoven (appr.360 g/m², UV stabilized, thickness appr.3.3 mm, pore opening width < 90 µm (EN ISO 12956)), maximum tensile force ≥ 25 kN/m (EN ISO 10319), width appr.5 cm, for covered laying around a tree trunk. **Ring diameter approx. 50 cm**.

Sales unit:10 pcs.

3.2 **BLUE**LITE-**TUBE** and **BLUE**LITE-**COVER:** Long rolls for individual cutting for new tree planting, with and without irrigation tube:

BLUELITE-**TUBE**:

Geotextile-wrapped drip irrigation pipe comprising:

a. Rivulis D5000 PCAS hose, 16 mm (13.8 mm inner Ø, 15.83 mm outer Ø), operating pressure 0.5–3.5 bar, wall thickness 40 mil (1.02 mm), emitter spacing 30 cm, flow rate 1.5 l/h, required filtration: 120 mesh, maximum lateral length 163 m at 3.5 bar.

b. Rain Bird XFD hose, 16 mm (13.6 mm inner Ø, 16.1 mm outer Ø), wall thickness 1.2 mm (49 mil), operating pressure 1.38–4.14 bar, flow rate 1.6 l/h, required filtration: 120 mesh, water temperature up to 37.8 °C, ambient temperature up to 51.7 °C, maximum lateral length 175 m at 4.14 bar (max. 32 m at 1.4 bar, max. 112 m at 2.1 bar).

c. Rain Bird XFS hose, 16 mm (13.6 mm inner Ø, 16.1 mm outer Ø), wall thickness 1.2 mm (49 mil), operating pressure 1.38–4.14 bar, flow rate 1.6 l/h, required filtration: 120 mesh, water temperature up to 37.8 °C, ambient temperature up to 51.7 °C, maximum lateral length 175 m at 4.14 bar (max. 32 m at 1.4 bar, max. 112 m at 2.1 bar).

Protective sleeve with water distribution function made of durable PP needle-punched nonwoven fabric (approx. 360 g/m², UV-stabilized, thickness approx. 3.3 mm, pore opening size < 90 µm (EN ISO 12956)), tensile strength ≥ 25 kN/m (EN ISO 10319), width approx. 5 cm, for installation on LITE-NET drainage geotextile mesh at a spacing of approx. 50–60 cm (fastening with ground staples if required).

Roll length: approx. 100 m.
Supply format: 55, 85 or 1200 m².

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BLUELITE-**COVER:**

Nonwoven-covered irrigation tube (3 outlets per m, appr.2l water per outlet/h, tube diameter 16 mm) with water distribution function made of durable PP needle nonwoven (appr.360 g/m², UV stabilized, thickness appr.3.3 mm, pore opening width < 90 µm (EN ISO 12956)), maximum tensile force ≥ 25 kN/m (EN ISO 10319), width appr.5 cm, for covered laying around or along trees.

Roll length: 100 m.

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4. Root protection nonwoven for construction sites (LITE-ROOTPROTECT):

4.1 **root curtain:**

Full-surface nonwoven as biodegradable construction site protection with water storage function in 2 widths:

Root curtain, 330 g/m²:

100 % **biodegradable** water storage and protection nonwoven for root curtains (pore content > 85 %, fiber thickness < 2 dtex, weight appr. 330 g/m², thickness min. 3.5 mm, maximum tensile strength lengthwise/crosswise > 190 N/5 (DIN EN 29073-3)). 100 % cellulose needle nonwoven without chemical additives.
Recommended opening times: 4 months in direct sunlight, 6 months in a shaded location.
Nonwoven can simply be poured over at the end of the construction site and supports irrigation and deep aeration for **approx. 1-2 years**.

On request with center/edge flap for inserting irrigation tubes.

Delivery form:

a. **Root curtain M**: roll with 80 cm width and 20 m length
b. **Root curtain L**: roll with 120 cm width and 20 m length



4.2 **root bandage:**

Nonwoven roll as **biodegradable** construction site protection with water storage function:

Root bandage 330 g/m²:
100 % **biodegradable** root bandage to protect exposed roots at construction sites.
Water storage needle nonwoven made of 100 % cellulose without chemical additives for moisture retention as well as mechanical and UV protection. Pore content > 85%, fiber thickness < 2 dtex, weight appr. 330 g/m², thickness min. 3.5 mm, maximum tensile strength lengthwise/crosswise > 190 N/5 (DIN EN 29073-3).
Nonwoven can simply be poured over at the end of the construction site. **Degradation time approx. 1-2 years.**
Recommended opening times: 4 months in direct sunlight, 6 months in a shaded location.

Delivery form: 8 pieces rolls with width 10 cm and length 8 m
16 pieces rolls with width 10 cm and length 8 m

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5. SALFIX-MAT:

THE FILTER MAT FOR PROTECTION AGAINST DE-ICING SALT:



5.1 SALFIX-MAT:

The 3-layer **SAL**FIX-**MAT** consists of an ion-exchange mixture enclosed between two robust filter fleeces. The salt is separated from the water and chemically bound within the AquaTextile. If salt-contaminated water flows in from the side, the edge can be folded over by 20–30 cm, creating a double layer at the exposed edge with higher buffer capacity.

Filter mat made of durable PP needle fleece and ion-exchange mixture (total approx. 4 kg/m², UV-stabilized, thickness approx. 8 mm, pore opening size < 90 µm (EN ISO 12956)), maximum tensile strength ≥ 25 kN/m (EN ISO 10319).

A tree pit covered with 4 m² of salt filter mats can— in addition to mechanically filtered salt— chemically bind up to approx. 1 kg of salt, depending on the conditions.

Of this, about 0.9 kg is permanently fixed, and an additional approx. 0.2 kg of salt can be gently washed out by pure water— harmless for plants— thereby restoring absorption capacity for the next winter season, ensuring the mat's long-term effectiveness. The mat serves as both a filter and a protective layer and is UV-stabilized; however, for long-term use, it should be covered with a water-permeable layer, such as gravel or a grating.

The innovative **SA**LFIX-**MAT**, a water-permeable filter mat, provides long-term binding of de-icing salt, thus preventing tree damage and soil compaction. Trees survive the winter sustainably, avoiding costly replanting. The installation is simple: place one mat on each side of the trunk within the tree pit, creating a filter area of either 2.0 × 2.0 m or 3.0 × 3.0 m.

Delivery form:

- 4 m² – 2 pieces, each 2 × 1 m
- 9 m² – 2 pieces, each 3 × 1.5 m