

# Tender texts for slope products for permanent underground irrigation:

# TECHNICAL CHARACTERISTIC

The products are made of long-time proven nonwovens, which are optimized for any type of soil. Up to 90% of 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. The products are available in polypropylene. Weight: 600g/m² (5mm thickness), 900g/m² (7mm thickness).

Products overview		PP		
		3 mm	5 mm	7 mm
LITE-STRIPS*				
70 x 12 mm	1 m³ BB		x	
70 x 12 mm	5 x 50 l Box		x	
70 x 12 mm	250 l Box		x	
LITE-NET STANDARD (Roll C20 = Meshes Ø 13 cm)**				
175: 1,75 x 16,3 m	28 m²		x	
350: 3,5 x 16,3 m	57 m <sup>2</sup>		x	x
520: 5,2 x 16,3 m	85 m²		x	x
BLUELITE-NET				
BLUELITE-COVER	25 m	x		
BLUELITE-TUBE	100 m	x		
BLUELITE-TUBE	20 pcs. 100m	x		
BLUELITE-RING	10 pcs. Ø 50 cm	x		

<sup>\*</sup> LITE-STRIPS kg/m²: Bio1 = 50 kg | Bio5 = 45 kg | PP = 50 kg

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<sup>\*\*:</sup> the m² dimensions are maximum sizes. Recommendation: for optimal results and easier installation, reduce design width e.g., instead of 5.2 m only 4 - 4.5 m (area reduction approx. 10 - 15%).



# Tender specification texts for underground slope products for permanent greening and irrigation:

- 1. LITE-NET Standard, roll material: water storage and distribution net
- 2. LITE-STRIPS: Water storage and aeration close to the roots in strip form
- 3. **BLUE**LITE-**NET:** Water-saving underground irrigation

# 1. LITE-**NET** rolls:

For underground air and water supply in 3 sizes each, 2 materials and 2 thicknesses. Installation at root depth.







Bio5

PF

### Designation declaration, e.g. for Bio5 520 C20/6:

Bio5: there are 3 material variants: Bio1, Bio5 or PP

520: With a width of 520 cm pulled apart, the largest possible area is obtained

C20: Due to the cut length of 20 cm, the mesh size Ø is approx. 13 cm, net area approx. 85 m², (with C14 the cut length is 14 cm, the mesh size Ø approx. 9 cm, the net area approx. 75 m²) C20 is standard, C14 is for superficial slope planting.

/6: Thickness approx. 6 mm. For C20 there are 6 or 8 mm, for C14 there are 4- or 6-mm variants.

#### 1.1 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  $\geq$  85 %, **degradation time approx.** 5-10 years). Rootable drainage net with mesh size  $\varnothing$  approx. 13 cm, can be pulled apart to at least 5 times the width.

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#### **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 ca. 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 ca. 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 ca. 0,35 m, weight appr. 12 kg.

#### 1.2 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  $\geq$  85%, pore opening width < 80 µm (EN ISO 12956), maximum tensile force  $\geq$  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 ca. 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 ca. 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 ca. 0,35 m, weight appr. 14,4 kg.

#### 1.3 LITE-NET Standard rolls PP C20/7:

Net-shaped water storage nonwoven as a **permanent** vegetation aid, installed underground for conducting, distributing and temporarily storing water and air in the, cut from PP needle-punched nonwoven (approx. **900** g/m², UV stabilized, thickness  $\geq$  7 mm, pore content/water storage  $\geq$  85%, pore opening width  $\leq$  65 µm (EN ISO 12956), maximum tensile force  $\geq$  60 kN/m (EN ISO 10319)). Rootable drainage net with **mesh size**  $\emptyset$  approx. 13 cm, can be pulled apart to at least 5 times the width.

#### **Delivery form:**

- a. PP 350 C20/7: **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 ca. 0,43 m, weight appr. 14,4 kg.
- b. PP 520 C20/7: **Net area max. 85 m<sup>2</sup>** with appr. 5,2 x 16,3 m. roll with width appr.1,2 m, length appr. 20 m, Ø ca. 0,43 m, weight appr. 20 kg.

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# 2. LITE-STRIPS:

As substrate improvement and near-root water storage for lawns, and slopes in 2 material variants:







#### 2.1 LITE-STRIPS Bio5:

Water storage nonwoven in strip form (approx. 70/12/6 mm) for mixing into the soil as irrigation close to the roots and vegetation aid as well as for improving substrate permeability and against compaction, cut from 100 % **biodegradable/compostable** PLA needle nonwoven (approx. 70% PLA + 30% cellulose, approx.  $500 \text{ g/m}^2$ , thickness approx. 6 mm, pore content/water storage  $\geq 85\%$ , water storage capacity up to approx. 10 l/kg, **degradation time approx.** 5-10 years).

Mixing ratio for lawns approx. 0.5 to 1.0 l per m<sup>2</sup>

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

#### 2.2 LITE-STRIPS PP:

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

Mixing ratio for lawns approx. 0.5 to 1.0 l per m<sup>2</sup>

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

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# 3. BLUELITE-NET:

For water-saving underground irrigation of lawns, athletic fields, golf courses, green roofs, slopes, etc.

(system consisting of 2 components, a distribution net and a nonwoven-covered drip tube laid on top of it):



## 3.1 LITE-NET Standard roll PP (component 1):

Distribution net with 2 thicknesses, C20/5 or C20/7 (1.2 and 1.3)

+

## 3.2 BLUELITE-TUBE (component 2):

Nonwoven covered drip 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).

Protective nonwoven cover with water distribution function made of durable PP needle nonwoven (approx.  $360 \text{ g/m}^2$ , UV stabilized, thickness approx. 3.3 mm, pore opening width <  $90 \mu \text{m}$  (EN ISO 12956)), maximum tensile force  $\geq 25 \text{ kN/m}$  (EN ISO 10319), width approx. 5 cm, for laying on LITE-**NET** drainage nonwoven mesh with spacing approx. 50 - 60 cm (if required, fastening by means of plug-in bracket).

Roll length appr. 100 m.

or

# 3.3 BLUELITE-COVER (component 2, without drip irrigation tube):

Protective and distribution nonwoven cover for drip irrigation pipes, made of durable PP needle nonwoven (approx.  $360 \text{ g/m}^2$ , UV stabilized, thickness approx. 3.3 mm, pore opening width <  $90 \text{ }\mu\text{m}$  (EN ISO 12956)), maximum tensile force  $\geq 25 \text{ kN/m}$  (EN ISO 10319), width approx. 5 cm, for insertion of own or individual irrigation tubes for laying on LITE-NET drainage nonwoven net with spacing approx. 50 -60 cm (if required, fastening by means of plug-in bracket).

Roll length appr. 25 m.

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