

Underground irrigation of sports fields with the **BLUELITE-NET SYSTEM**

The **BLUELITE-NET** system is a completely new and technically improved solution for water-saving underground irrigation. It is installed at the depth of the roots and consists of 2 elements:

- a.) A fleece-covered drip irrigation tube (**BLUELITE-TUBE**) that connects directly to
- b.) a water distribution net (**LITE-NET**)

The water from the irrigation pipe is distributed longitudinally in the fleece lining, released by direct contact to the network below and there distributed capillary and uniformly in the area at the depth of the root.

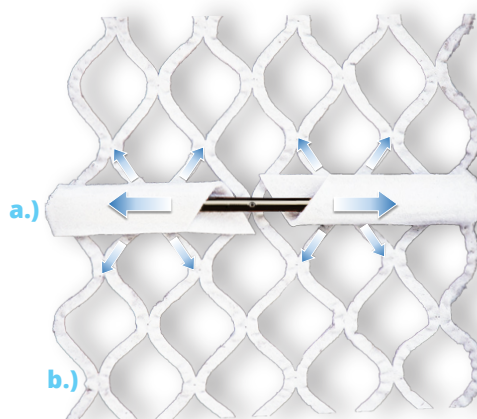


Advantages of the fleece coating (**BLUELITE-COVER**):

- » The irrigation hose outlet openings are protected against root growth and sedimentation.
- » The water is distributed throughout the thick layer of fleece, increasing the water/land contact surface by a thousand times. This leads to a uniform water supply and water distribution in the longitudinal direction.
- » Mechanical protection of drip irrigation pipe.

Advantages of the distribution net (**LITE-NET**):

- » The thick fleece network not only distributes water thanks to its capillarity, but also transports air.
- » The distance between the hoses is 60-70 cm (when the subsoil is rich in fine particles) or 50-60 cm (with sandy subsoil).
- » Roots can easily grow through the 13 cm net openings and attach around them freely. In this way, the roots are supplied with 100% of the water stored in the net.
- » There is no barrier effect or slip layer.
- » The pressure is distributed between the openings of the network, this way the system does not spring and the water does not form under load squeezed out.



Additional benefits of the system (**BLUELITE-NET SYSTEM**):

- » Thanks to the lack of evaporation and the selective release of water directly to the roots, up to 70% water savings are achieved compared to sprinkler irrigation.
- » Watering is possible at any time, even when playing or mowing the grass.
- » Without the need for additional matting on the surface or waterlogging caused by irrigation, the surface maintenance costs can be reduced.
- » Simple and quick installation.



Installation instructions:

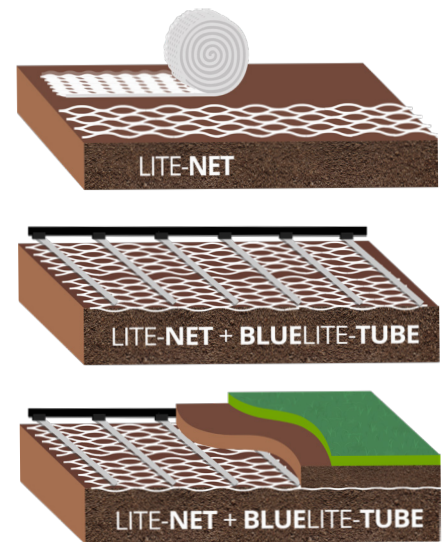
1. Spread the **LITE-NET** on the flat, loose surface. To get the maximum area of the net, space the 1.2m wide rolls to 5.2 - 5.4m with at least 2, preferably 4 people. This reduces its length from, for example, 20 m to approximately 16 m.

2. Lay the felt-covered drip irrigation tubes transversely to the laying direction of the felt net. The placement distance depends on the substrate. In soils that are highly permeable to water, such as on sandy soils or in drainage layers, the distance is approx. 50-60 cm, on soils rich in fine particles, the distance is approx. 60-70cm.

3. Connect drip irrigation pipes individually or several via distributors to the main supply pipe along the sports field. On the other side, close the pipes or connect them to a drain pipe installed a little deeper. Advantage: You only need to open the drain pipe to flush the system or empty the pipes before winter. Drainage can also be done with compressed air.

4. Test the system.

5. Apply a layer of soil 8 -15 cm thick and sow a lawn mixture or turf that has as long roots as possible. The **BLUELITE-NET** system can also be placed up to a depth of 22/23 cm. However, the soil layer must be applied in two layers. Before application, mix approx. 0.5 l/m² **LITE-STRIPS** (7 cm long fleece strips). **LITE-STRIPS** raise the water level. In addition, they increase the permeability, stability and water storage capacity of the base layer. A soil rich in fine particles is also advantageous than a top layer into which **LITE-STRIPS** has not been mixed. When installing, avoid driving directly on the **BLUELITE-NET** integrated devices.



Technical data:

° **BLUELITE-TUBE:** If desired, any 16 mm pressure-compensated drip irrigation pipe can be installed. As standard we use the Rivulis D5000 PCAS with a diameter of 16 mm (13.8 / 15.83 mm), vacuum protection, 0.5 - 3.5 bar, 40 mil (1.02 mm), 1.5 l/h, dripper distance of 30 cm; ([D5000 PC Drip Line - The Next Evolution in Drip Technology | Rivulis](#)). Filtration required 125 microns. It can be expanded and connected using standard connectors.

Protective coating with water distribution function made of durable PP needle fleece (approx. 380 g/m², UV stabilized, thickness approx. 3.5 mm). Pore opening width < 90 µm (EN ISO 12956), maximum tensile force ≥ 25 kN/m (EN ISO 10319), width approximately 6 cm, for direct installation in the **LITE-NET** distribution net.

Delivery method: BLUELITE-TUBE (drip irrigation tube with protective coating) is normally delivered in rolls of 100 m. The delivery length can also be adjusted up to a maximum of 150 m.

° **LITE-NET Roll PP C20/5:** Net-shaped water storage fleece as a permanent ecological aid, installed underground to conduct, distribute and temporarily store water and air at root level, cut from PP - Needle-punched fleece (approx. 600 g/m², lightning stabilized UV, thickness approx 5mm, pore/water storage content ≥85%), Pore opening width < 80 µm (EN ISO 12956), maximum tensile force ≥ 40 kN/m (EN ISO 10319). Root-permeable drainage network with a mesh diameter of approximately 13 cm and extendable up to at least 5 times its width. 1 kg can store up to 10 liters of water.

Delivery method:

- PP 350 C20/5:** Maximum useful area of 57 m² with approximately 3.5 x 16.3 m. Roll with a width of approx. 0.8 m, a length approx. 20 m, a diameter approx. 0.35 m, weighing approx. 9.6 kg.
- PP 520 C20/5:** Maximum useful area of 85 m² with approximately 5.2 x 16.3 m. Roll with width approx. 1.2 m, length approx. 20 m, diameter approx. 0.35 m, weight approx. 14.4 kg.
- PP 520 C20/5 XL:** Maximum network area of 275 m² with approximately 5.2 x 52.8 m. Roll with width approx. 1.2 m, length approx. 65 m, diameter approx. 0.55 m, weight approx. 46.8 kg.

° **BLUELITE-NET SYSTEM:** Package for 1200m² at 60 cm distance: 20 pcs. **BLUELITE-TUBE** + 4 pcs. **LITE-NET PP 520 C20/5 XL** + 2 pcs. **LITE-NET PP 520 C20/5**.

° **Basic lawn configuration:** approx. 2 x 15 min, better 3 x 10 min of irrigation time/day. Warranty on product functionality: 3 years.