

TREEIB® irrigation bags

TECHNICAL SPECIFICATIONS

TREEIB® is a patented (EP3809823B1) professional irrigation system explicitly designed for watering **mature and established trees** (5+ years on final site) in urban environments. The system enables **controlled, deep, and slow water infiltration** directly into the root zone up to 60 cm depth, with options to water through open soil, grass, stone/concrete paved, sand, and gravel surfaces, supporting tree vitality, cooling performance, biomass growth, tree stability, tree safety, carbon sequestration and other ecosystem services production.

The flat watering bags are manufactured from durable, **UV-resistant PES woven textile, coated on both sides with PVC**, and have a **matte surface**. The material produced under the **REACH Directive** (EC 1907/2006) complies with **EN 71-3:20xx** (Safety of toys – Migration of certain elements), certificate available. The material strength is at least 600 g/m², 1100 dtex.

The bags are designed for use on **even surfaces and on slopes up to 20°**. Even on a 20° slope, it is possible to fill the bag to at least **80%** of capacity due to patented filling cylinder.

The bags are equipped with a **filling cylinder** with diameter 150 mm, that allows filling with a wide range of hoses, **from a garden hose to a firehose A (100 mm)**.

The opening of the bag – the filling cylinder - can be **safely closed** to prevent debris, pollutants, and other objects from entering the bag body and clogging the water-releasing openings.

The filling opening is lockable. A lock with a shock sensor is delivered along with the bag, free of charge.

The bags, depending on use and variant, are optionally equipped with **metal eyelets** for anchoring the bag to prevent theft and/or damage caused by unwanted relocation, e.g., by wind.

The bags' safety can be improved by using **GPS modules** and 24/7 security. The producer or dealer can recommend the service provider that has been already widely tested.

The bags are **repairable** by an educated, regular adult person with a repair set delivered together with the goods.

Water is released at a predictable timeframe (8-24 hours, depending on application, customer requirements, and surface roughness) via simple openings distributed evenly around the bag's lower surface, prone to clogging, and **easy to clean if clogged**. The openings distribution prevents, to a maximum extent, the loss of irrigation liquid at the edges when the bag is full (runoff).

The water release time depends on the surface underneath the bag – the smoother and more even the surface, the slower the bag will empty. On rough or loose surfaces, like gravel, the bag drains much faster because water escapes through gaps under the outlet openings.

The TREEIB® bags can be used not only for **water delivery**, but also for the application of **dissolved soil amendments** such as *mycorrhizal inoculants*, *Trichoderma preparations*, *biochar suspensions*, *compost tea*, and **liquid fertilizers**, supporting improved soil biology and root vitality.

Each bag features a **unique serial number** printed beneath the logo, enabling clear identification and traceability for security purposes.

Each bag is equipped with a durable carrying strap to facilitate easy transport and handling.

Warranty period: 12 months

The TREEIB® portfolio consists of three product variants:

- **TREEIB 1500** – Standard model for large trees (streets, parks, and urban landscapes). **Quarter circle shape.**
- **TREEIB City** – Compact model optimized for dense urban spaces and smaller tree pits, designed also for watering on paved surfaces. **Rectangle shape.**
- **TREEIB Verge** – Elongated model for linear green infrastructure (roadside, medians, and embankments). It can be produced for paved surfaces with a specific release time. **Rectangle shape.**

Printing Options:

TREEIB® bags allow **full-color printing** with either a **customer-provided design** or a **design prepared by the manufacturer**.

Printing is possible on all fabric areas **not affected by welding seams**.

Accordingly:

- **TREEIB® City** and **TREEIB® Verge** models can be printed across the entire surface area, except along the perimeter edges.
- **TREEIB® 1500** features welded seams along the outer edges and **two additional welds perpendicular to the bag's longitudinal axis** (each approximately 4 cm wide), which slightly limit the printable area on the upper section.

Compliance

TREEIB® products comply with:

- EU REACH Regulation (EC 1907/2006) – free from harmful substances
- EN 71-3 (Toy safety – Migration of certain elements)
- ISO 9001 certified production

Additional Recommendation:

During very hot and sunny periods, empty bags should not be left on grass or turf in sun-exposed areas, as this may cause temporary aesthetic damage to the vegetation. It is advisable to **fill the bags in the late afternoon** and **remove them before midday** to minimize heat stress on the underlying surface.

To get the maximum value of your watering efforts, use the bags according to **TREEIB® watering method**.

Manufacturer

LEDASCO s.r.o.

Registered Trademark: TREEIB® (CZ, EU, US, AUS, CA, CH)

Country of Origin: Czech Republic (EU)

Manufactured in: Czech Republic or Slovakia

Website: www.treeib.com

List of dealers: <https://www.treeib.com/find-a-dealer-where-to-buy>

Valid Patent protection of the bag and the method: CZ310066B6, EP3809823B1, US11991960B2, CN217217694U, AU2019455592A1, CA3151795A1

Contact: info@ledasco.cz

This technical specification document was written by Martin Tušer.

The last revision date: November 3, 2025

The model specification continues on the following separate pages.

TREEIB® 1500 – Technical Specification

Parameter	Specification
Product type	Irrigation bag for established trees (5+ years in final location)
Water capacity	1,500 litres ±5%
Dimensions (filled)	Length 600 cm × Width 102 cm × Height 40 cm (when full). Quarter-circle shape.
Water release time	8–16 hours (depending on surface)
Material	High-strength UV-stabilized PES (1100 dtex) coated with matte PVC on both sides, 620 g/m ²
Tensile strength	3000/3000 N/50 mm (DIN EN ISO 1421/V1)
Tear strength	300/300 N (DIN 53363)
Temperature resistance	–40°C to +70°C (DIN 1876-1)
Adhesion	100 N/5 cm (PA 09.03)
Fire behavior	>100 mm/min (ISO 3795)
Drip system	27 calibrated drip outlets for even infiltration
Operating temperature	–5°C to +40°C
Filling method	Compatible with hoses up to 15 cm diameter
Positioning	Ideally on canopy dripline or beyond, optionally under crown
Color	Dark green (standard), other colors optional
Lifespan	Minimum 5 years outdoors under EU UV radiation conditions
Optional branding	Full-color UV print for logo or sponsor label (lifetime durability)
Recyclability	100% recyclable
Weight	9 kg
1 unit contains	1 bag, 1 repair set, 1 transport strap. 4 straps for stabilization on slope. One padlock with shock sensor (alarm) as a present free of charge.

TREEIB® City – Technical Specification

Parameter	Specification
Product type	Compact irrigation bag for confined tree pits and paved areas, usable also on grassy areas
Water capacity	430 litres ±5%
Dimensions (filled)	Length 200 cm × Width 102 cm × Height 40 cm (rectangular shape)
Water release time	8–24 hours
Material	High-strength UV-stabilized PES (1100 dtex) coated with matte PVC on both sides, 620 g/m ²
Tensile strength	3000/3000 N/50 mm (DIN EN ISO 1421/V1)
Tear strength	300/300 N (DIN 53363)
Temperature resistance	–40°C to +70°C (DIN 1876-1)
Adhesion	100 N/5 cm (PA 09.03)
Fire behavior	>100 mm/min (ISO 3795)
Drip system	12 calibrated openings for even infiltration
Operating temperature	–5°C to +40°C
Filling method	Compatible with hoses up to 15 cm diameter
Positioning	On canopy dripline or beyond, suitable for paved surfaces
Color	Dark green (standard), other colors optional
Lifespan	Minimum 5 years outdoors under EU UV radiation conditions
Optional branding	Full-color UV print for logo or sponsor label (lifetime durability)
Eyelets for anchoring	Yes, 6x
Recyclability	100% recyclable
Weight	3,5 kg
1 unit contains	1 bag, 1 repair set, 1 transport strap. One padlock with shock sensor (alarm) as a present free of charge.

TREEIB® Verge – Technical Specification

Parameter	Specification
Product type	Linear irrigation bag for roadside trees and vegetation strips
Water capacity	1,000 litres ±5% (adjustable per customer requirement)
Dimensions (filled)	Length 400 cm × Width 102 cm × Height 40 cm (when full). Rectangular shape.
Water release time	8–16 hours (deep infiltration)
Material	High-strength UV-stabilized PES (1100 dtex) coated with matte PVC on both sides, 620 g/m ²
Tensile strength	3000/3000 N/50 mm (DIN EN ISO 1421/V1)
Tear strength	300/300 N (DIN 53363)
Temperature resistance	–40°C to +70°C (DIN 1876-1)
Adhesion	100 N/5 cm (PA 09.03)
Fire behavior	>100 mm/min (ISO 3795)
Drip system	27 calibrated openings for uniform infiltration
Installation	Along roadside verge, tree rows, or median strips
Eyelets for anchoring	Yes, 8x
Operating temperature	–5°C to +40°C
Filling method	Compatible with hoses up to 15 cm diameter
Color	Dark green (standard), other colors optional
Lifespan	Minimum 5 years outdoors under EU UV radiation conditions
Optional branding	Full-color UV print for city or sponsor identity
Recyclability	100% recyclable
Weight	7 kg
1 unit contains	1 bag, 1 repair set, 1 transport strap. 4 straps for stabilization on slope. One padlock with shock sensor (alarm) as a present free of charge.
