Roofingreen®
CARATTERE INNOVATIVO

TECH DATA SHEET

Ground

Model: **Ground**
Product code: **RN22_01M10_DRAIN**
Minimum purchase: **Box of 22 pcs**
Product dimensions: **50 x 50 x H 4,0 cm**
Product weight: **2,1 Kg/pcs**

Roofingreen® GROUND is a modular, artificial turf tile system designed for direct installation on draining substrates.

The tiles are composed of a thermoplastic base structure, an intermediate foam layer and a surface of synthetic turf.
The materials do not absorb humidity, whereas the presence of invisible drainage holes ensures the passage of surface water. By simply fitting together the dovetail shaped tiles an interlocking, homogeneous turf surface with a natural appearance and high degree of comfort is obtained. With a height of 40 mm, electricity cables and LED footstep lighting can be integrated smoothly.

GROUND is particularly suited for installation on draining sub layers like gravel, stones, sand and compacted earth. Even when these layers have a degree of unevenness and slope, the tiles will absorb these irregularities and the resulting turf surface will be smooth and stable. Typical applications include gardens, pool areas, patios and courtyards, walkways, and public grounds.

The Roofingreen tiles are highly durable with an expected lifetime of fifteen years. The surface can be used all year around in a diverse range of climatic conditions (cold, wet, hot) thanks to the dimensional stability and excellent drainage properties, resulting in a dry and clean surface.

Key Features

- Natural looking and highly comfortable turf
- Excellent water drainage
- Low weight
- Easy logistics and installation
- Dry technology; no water consumption
- Maintenance free
- High stability; install on irregular substrates
- Fully integrated cable passage and LED spotlight option
- No formation of mold, mildew, rot and bacteria
- No bad odor, perfect for pets

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MATERIAL SPECIFICATIONS

Synthetic Grass

Material	polyethylene/polypropylene (PE/PP)monofilament, multi-shape
Backing	polypropylene (PP)

Foam Layer

Material	XPE (cross-linked polyethylene foam)
Thickness	10 mm (± 10%)

Base Structure

Material	recycled polypropylene (PP)

Module

Length / Width	500 x 500 mm (± 1%)
Height	40 mm (± 5%)
Weight	2.1 kg (± 10%)
Drainage Holes	12 per tile with 6 mm diameter

INSTALLED SYSTEM

Net Surface Area	4 modules per 1 square meter
Height	40 mm per tile
	47 or 56 mm in combination with Geodrain layer
Weight	8.5 kg/m^2 (± 10%)

PACKAGING

Cardboard Box (54 x 54 x 115 cm)	22 modules - 5.5 m^2

TECHNICAL PERFORMANCE

Parameter	*Value*
Concentrated Weight Load	2.25 kN
Distributed Weight Load	5.0 kN/m²
Drainage Capacity	40 l / min / m²
Lightfastness (UV Exposure)	Grey scale ≥ 4 (ISO EN 20105-A02, 5000h exposure)
Sunlight Exposure	Low intensity zones (≤ 120 kLy): min.10 years* Medium intensity zones (140-160 kLy): min. 7 years* High intensity zones (≥ 180 kLy): min. 5 years* ** The number of years refer to the period there should be no visible change. Beyond this period, a gradual color shift of the artificial turf may occur; data are indicative and may be affected by particular local conditions.*
Chemical Resistance	Excellent resistance to acids, alkalis, oils, mold, rot and soil. Suitable for installation near pools (chlorine) and seaside (salt). Resistant to salts used for melting snow.
Temperature Operating Range	from -20°C to 75°C

HEALTH AND SAFETY

Parameter	*Value*
Composition	REACH compliant. Turf compliant with EN 71-3 (toys). Does not contain heavy metals or other hazardous/toxic components.
Flammability	ASTM D2859-16
Surface Impact Attenuation	ASTM F1292

GROUND panels are suitable for direct installation on the underlying substrate only (floating floor with continuous support). They shall not be used for elevated decking installations, neither entirely nor partially, as this may cause the tiles to fail, causing material damage and potential injuries.
Under prolonged, high intensity sunlight exposure the turf surface will heat up: care should be taken when walking barefoot. Under shade the surface will cool off rapidly.
Artificial turf surfaces tend to accumulate an electrostatic charge in case of rubbing with other materials (e.g. rubber soles) and in certain circumstances (dry surface, low air humidity). Care shall be taken to avoid personal accidents caused by an electric discharge; specific products are generally available to avoid this.

PROJECT PREPARATION

To ensure the correct quantity of materials it is recommended to share with Roofingreen the .dwg or .pdf drawings of the project with the exact surface dimensions. In addition, to select the appropriate product combination it is recommended to inform us about the type of surface on which Roofingreen will be installed, as well as the desired height level(s).

INSTALLATION

GROUND is designed to be installed directlly on a wide variety of substrates including uneven, draining layers like gravel, stones, sand or compacted earth; either directly or in combination with a Geodrain geotextile layer.
The tiles can be cut to size on-site, using a circular electrical saw or other appropriate equipment, to obtain straight edges and to make the surface fit the surrounding structure.
To obtain a homogeneous looking surface, it is necessary to place all panels with the same direction of the grass pile. The tiles have signage to indicate this. The tiles shall be slotted together in such a way as to avoid the pile remaining stuck between tiles. A purpose-designed tool (Easyfix) is available on from Roofingreen for this purpose. Alternatively, a metal comb or similar tool may be used to pull up any entrapped grass.
As the final installation step it is advised to pull up the grass pile using either a strong brush metal comb or similar tool for relatively small surface areas, or for larger surfaces a mechanical cleaning and brushing machine, which potentially also cleans the surface of any debris (for example model 502 from www.rollandcomb.com).
It should be avoided to install Roofingreen within 50 cm distance from the surface perimeter in case there is an adjacent partition of low-E glass: the reflection of solar radiation may cause a rapid deterioration of the synthetic turf tuft.

The installation of the system can be performed either by Roofingreen appointed installers or alternatively, by personnel chosen by the client following the installation instructions.
Roofingreen declines any
responsibility for the quality of the installation and any negative consequences and / or damage resulting from incorrect or imperfect installation. For more detailed instructions and guidelines for installation, please refer to the Installation Manual available on demand or contact qualified personnel.

MAINTENANCE AND CLEANING

The Roofingreen surface requires very little maintenance. The only recommended intervention is to pull up the grass pile from time to time to give the surface a fresh appearance. The frequency will depend
primarily on the amount of foot traffic. This intervention can be carried out using a manual tool (brush) or, for large surface areas, it will be more practical to use specific mechanical equipment.

Cleaning of the Roofingreen surface is easy. Dust can be removed by spraying with water. Most stains can be cleaned by using water and soap, or using detergents suitable for artificial turf. Rubbing does not
damage the surface. To remove small debris (small stones, leaves, twigs, pine needles) it is convenient to use combined cleaning and brushing machine (see above).
In case of localized damage to one or more tiles it is possible to substitute single parts with a new tile without intervening on the substructure. Inspection of the underlying (waterproof) roofing or flooring can be performed by temporary removal of the modules, which can be put back into place after the inspection and maintenance work is completed.

WARRANTY DISCLAIMER

Roofingreen products and systems come with a two-year general warranty for manufacturing defects.

The installation and use of Roofingreen products and systems is beyond our control, and is therefore the sole responsibility of the reseller, installer and / or user.

The purchaser is responsible for the identification and communication to Roofingreen of any relevant local and national legislation, industry norms and standards, and/or regulations concerning the composition, characteristics, performance and installation of our products and systems.

Remarks:
CAD files can be downloaded directly from www.roofingreen.com

Original measures are in metric values; the transcription into 1/8 inch length units results in a potential margin of imprecision of up to 5%.

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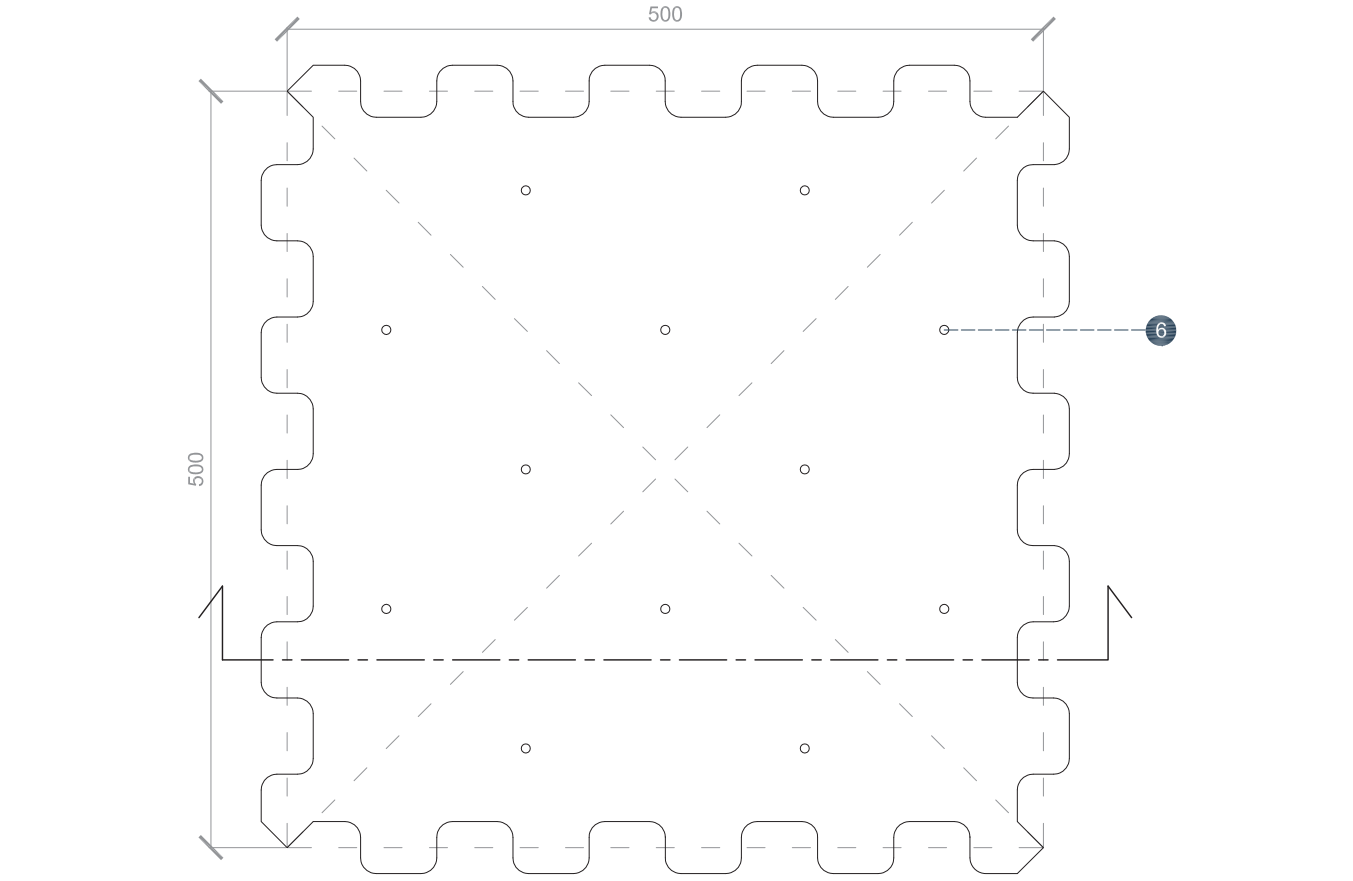

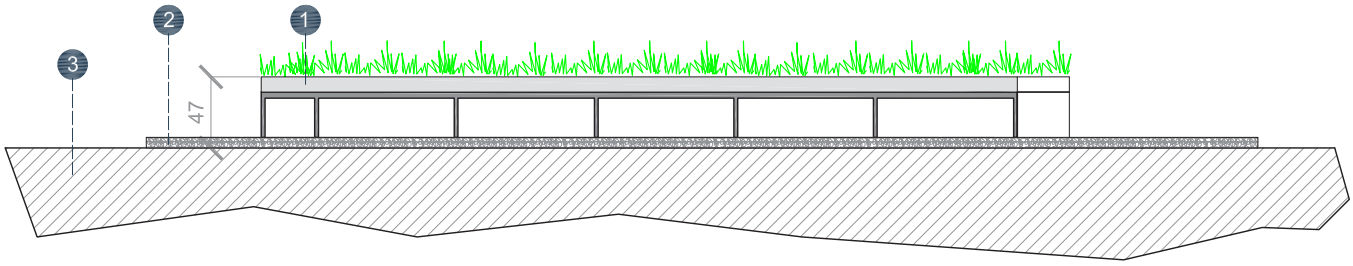

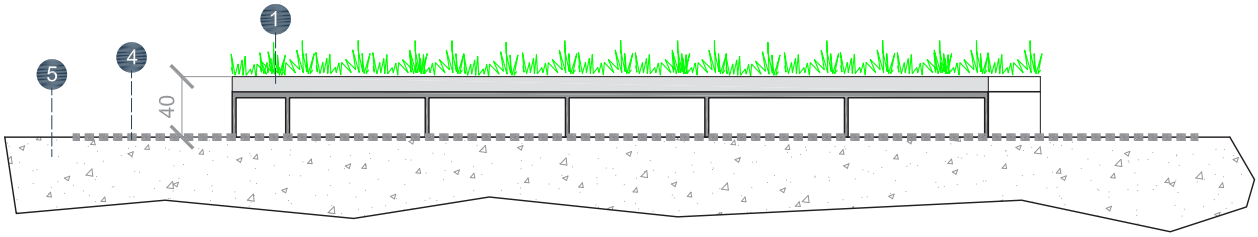

LEGEND: The modules outer profile shape as represented in these drawings is indicative only, however sufficient for the definition of the dimensions.

1. Roofingreen **Drain** ht. 40 mm
2. Drainage roll ***Geodreno*** ht. 7 mm
3. Substrate
4. Layer of non-woven fabric
5. Drainage stabilized gravel
6. Drainage hole Ø 6 mm

MODEL	FILE	DESCRIPTION	SCALE	TAV.
DRAIN	M10DRAIN_mm.dwg	Plan and Section	1:5	M10DRAIN_01

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