



oasis

MULTIMODAL HYDROACTIVE ROOF

Green innovation for smart cities





OASIS

→ A NEW
CONCEPT

OASIS Innovative system for optimal management of rainwater on the roof.

OASIS is a multimodal hydroactive roof which allows to store, irrigate, regulate the rainwater on the roof.

4 BREVETS INTERNATIONAUX DÉPOSÉS



1_STORAGE

A mesh of interconnected and sealed **HYDROSTOCK®** retention tanks is placed directly on the waterproofing membrane to cover a maximum surface of the roof regardless of its configuration. They isolate the membrane from stored water, UV and impacts, thus preserving its durability.

HYDROSTOCK® RETENTION TRAY
100% recycled high density polyethylene
- Storage capacity : 50 L/m²



2_IRRIGATE NATURALLY

80% of the water stored in the tanks goes back to the revegetation complex located above thanks to the capillary wicks. OASIS optimizes water resources, thus ensuring the irrigation of plants and the dissipation of rainwater. By dissipating water in the atmosphere by evapotranspiration, OASIS roofs are islands of freshness that lower the temperature of buildings and ambient air.

WICK SYSTEM CAPILLARITY DRYERS Microfibers of rot-proof polymers, fixed to the tray and in contact with the non-woven filter of the Multimodal Plate.



4_MULTIMODALE

While allowing the passage of rainwater, the **MODULO** plate positioned on the retention tank makes it possible to create a carrier structure, flat and movable, which can receive all types of layout solutions.

- Vegetation complex
- Wood or composite decking
- Slabs on studs
- Chippings
- Rails and photovoltaic panels
- vegetable squares
- Planters and other furniture (benches ...)
- Bodyguard
- Technical elements (sheaths, VMC ...) temporary or permanent. The system makes it possible to easily build terraced roofs, to integrate new roofing features, while ensuring optimized management of rainwater.

MULTIMODAL PLATE

100% recycled polypropylene. Dimensions: 600 x 400 x 15 mm. Gridded and pre-drilled to allow easy attachment of accessories (brackets, rails ...).

FILTERED

Non woven filter, permeable, tear resistant. The integrated filter under the plate prevents debris, fine particles and pollution from reaching the retention tank and the control system.



3_FLOW REGULATOR

Thanks to the patented "drip" evacuation system, the water stored on the roof can also be emptied to the downspouts. Distributed on the roof and confined in the tanks, the evacuation device allows the control of micro-leakage flow (up to 1 L / s / Ha), thus relieving downstream networks and structures. Equipped with a staged filtration system, this patented regulator do not stop. It delivers a constant micro-flow of evacuation, whatever the height of water contained in the storing bins. Including 4 separate calibrated outputs, the regulator is adjustable. The overall leakage rate of the roof is therefore determined by the choice of the regulator output and the number of controllers distributed in the system. The full range of micro-flows imposed in local rain zones from 1 to 10 L / s / Ha is feasible.

PATENTED FLOW CONTROL FLOW CONTROL

Floating regulator with constant and adjustable micro-flow. This regulator with integrated filter is placed only in the drain tanks, distributed evenly over the entire roof. It evacuates the water towards the downspouts through a flexible pipe which crosses the wall of the tank.

CONNECTORS

The connector ensures both the hooking of the trays between them, their proper positioning and the passage of water between bins to drain tanks including the Regulator. They are clipped manually in the corners of each tray.

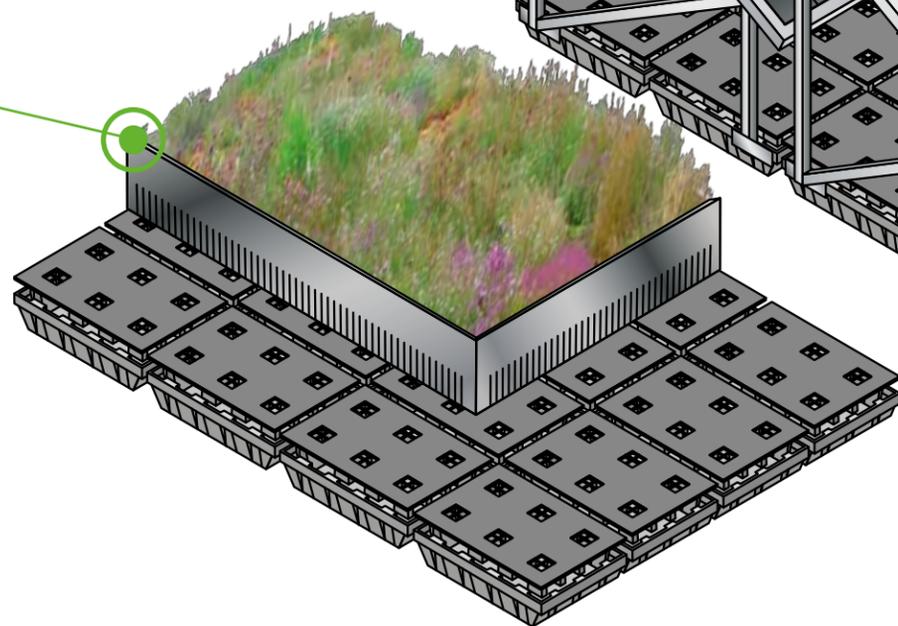
OASIS Innovative roofing system

You have a project ?
 Oasis, multimodal hydroactive roof,
 opens the field of possibilities by offering on the basis of
 the same system the choice among the four worlds of roof
 planning:

Mix the spaces
 in the image of your project concept
 while respecting your budget,
 your regulatory constraints
 or your technical constraints
 for a unique multifunctional roof that
 manages rainwater ...

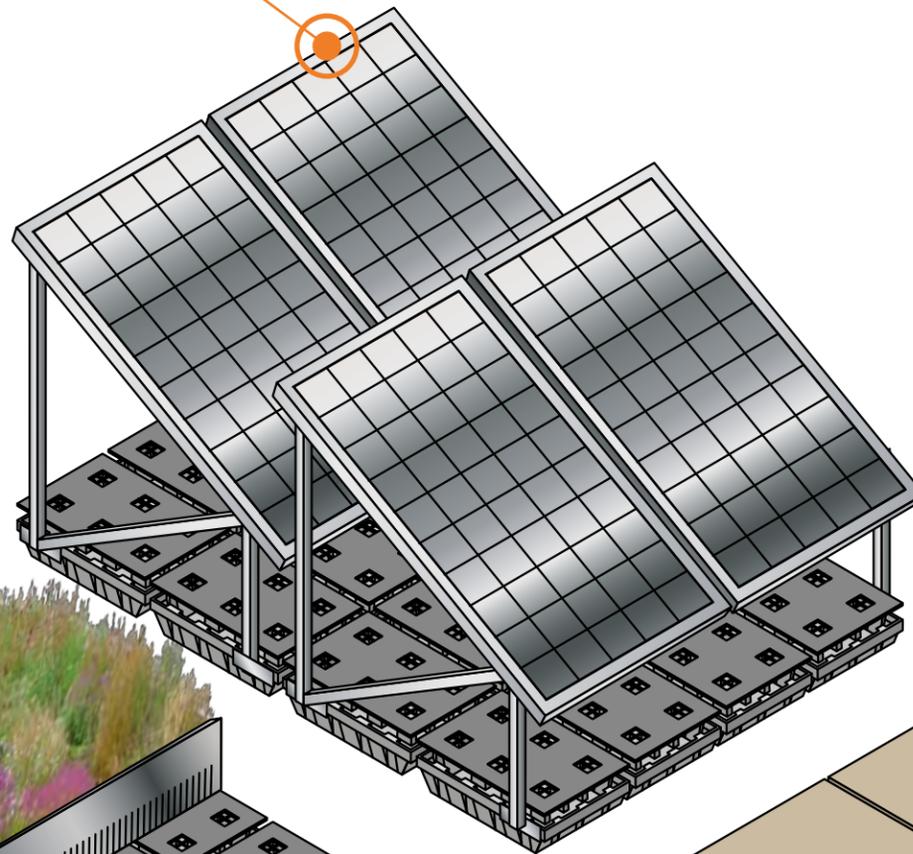
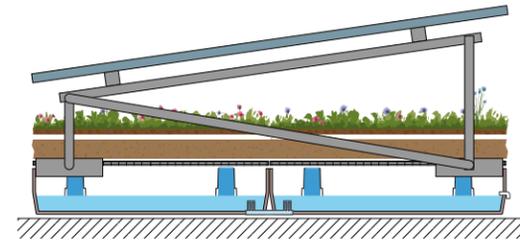
OASIS GREEN

Creation of green spaces: Pre-grown Trays, multi-layer systems, garden roofing or urban kitchen garden.



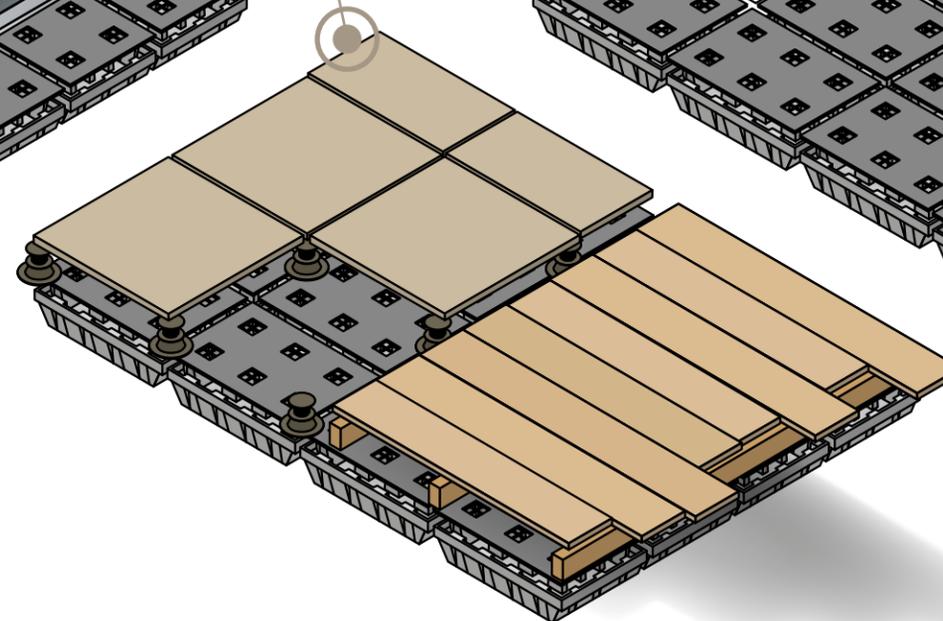
OASIS SOLAR

Realization of solar roof.



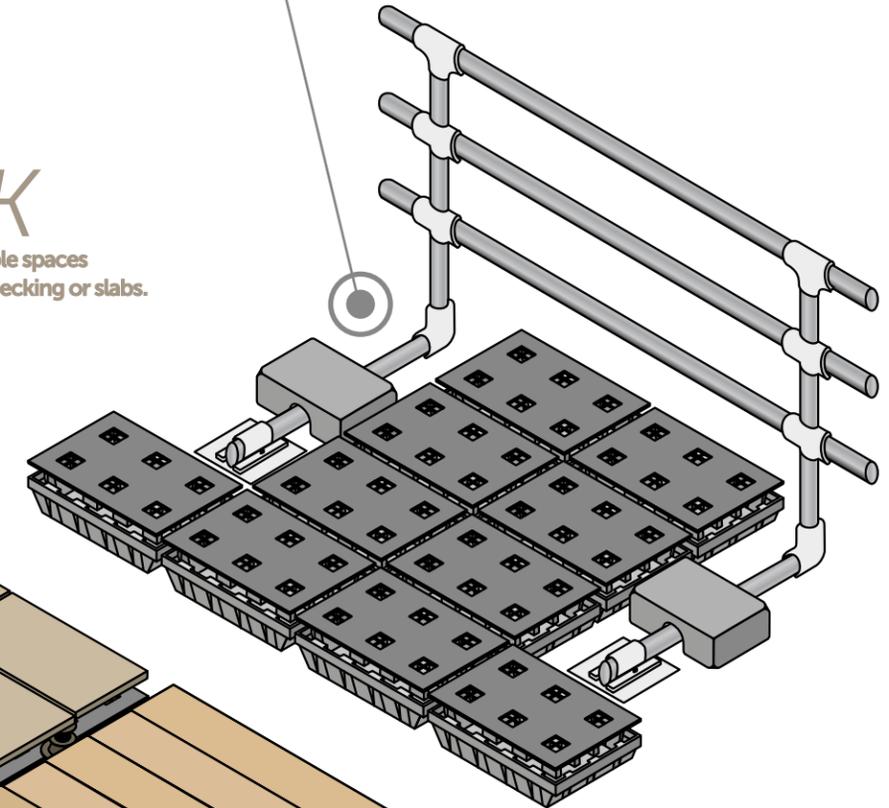
OASIS WALK

Creation of circulable spaces in gravel, wooden decking or slabs.

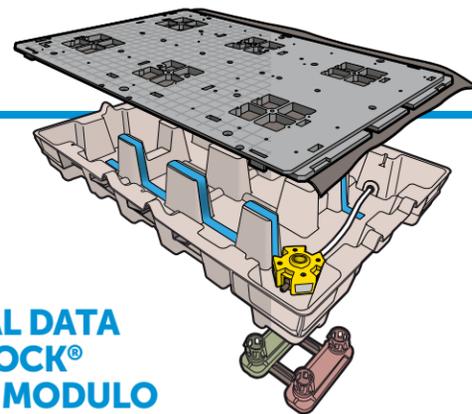
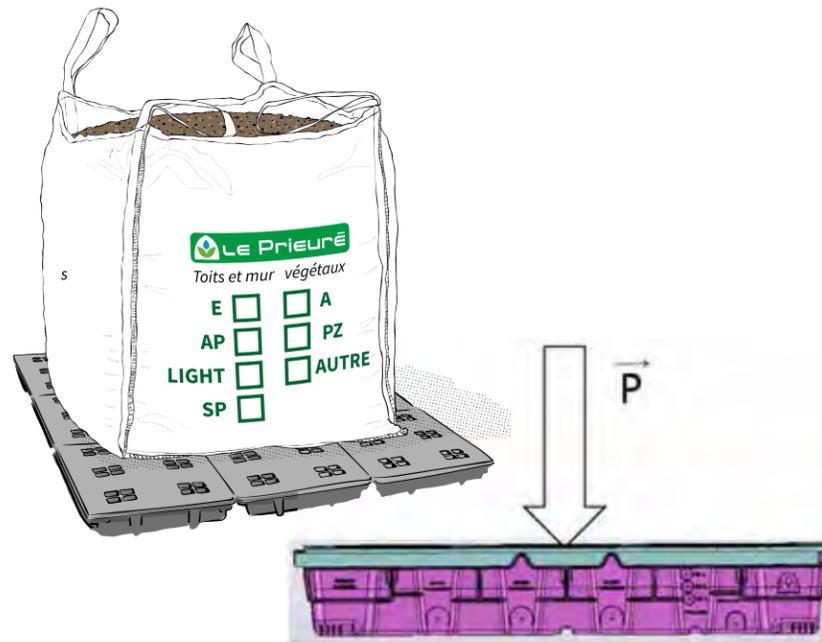


OASIS SAFETY

Integration of railings.



OASIS Everything you always wanted to know



TECHNICAL DATA HYDROSTOCK® & PLAQUE MODULO

Matériau :
HDPE recyclé (RIGIDEX HD6070UA)
 Overall dimensions (l x w x h): 23.6 inches x 15.74 inches x 3.75 inches (sub-irrigation tray + multimodal plate)
 Poids du système :
0,75 Kg
 Max. water storage capacity: 50 L/ m2. 1.22 gallons/sf
 Weight at MWC: 58 kg/m2 11lb/sf
 Operating temperature: - 50 °C / + 80 °C

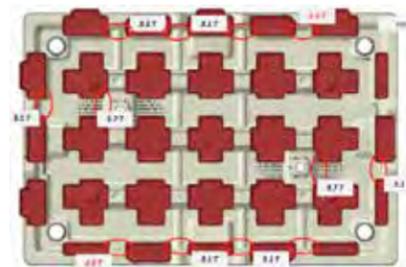
COMPRESSION RESISTANCE

Deformation test
 In distributed load, a first plastic deformation appears at 2.5 tons at the foot of the studs.
 Test carried out by numerical simulation (by Arobas Technologies).

UN TEST EN SITUATION RÉELLE A ÉGALEMENT ÉTÉ RÉALISÉ
HYDROSTOCK® sub-tanks equipped Modulo plate resist a fixed load of 279 lb/Sf without deformation.

Test carried out internally on the basis of 4 tanks, surface equivalent to 1 m2 at a temperature of 12 °C on concrete floor.

Top view of Hydrostock Tray



COMPLIANCE WITH STANDARDS IN EFFECT

The various Oasis Green, Oasis Solar, Oasis Walk and Oasis Safety solutions comply with the standards in force in the design and implementation of greening systems, photovoltaic systems, slabs on plots and railing.

GENERAL MAINTENANCE OF THE SYSTEM

2 basic annual maintenance visits are recommended for the verification of the proper operation of the emptying system. This number of visits may be increased, in particular for OASIS GREEN solutions according to the revegetation system implemented on each project.

OASIS GREEN

OASIS WALK

OASIS SOLAR

OASIS SAFETY

MOSQUITOES

It has been demonstrated, by the practice on the whole of the OASIS experimental sites around the world and by the exploratory study presence mosquito led by the metropolis of Greater Lyon and the observatory OTHU on the year 2016 on 17 sites, no presence or development of tiger mosquito larvae or other species in the OASIS system.

There is no water stagnation in the OASIS system, since the rainwater recovered is either immediately reused for irrigation or discharged via the regulator.

In addition, the OASIS system is a closed system since in all its configurations and in particular for OASIS GREEN solutions, we recommend the installation of brackets around green spaces.





Oasis

→ YOU HAVE A PROJECT
ROOFING FACILITIES

OASIS | The fields of application

Each roof is unique. Thanks to its multiplicity and modularity of solutions, the OASIS system can be adapted to buildings of very varied structures (from steel industrial building to concrete structure building) and to meet for aesthetic and functional purposes from the most basic to the most elaborate.

MAKE AN INACCESSIBLE ROOF



INDUSTRIAL AND COMMERCIAL BUILDINGS
Lightweight structure (<math><60\text{ kg / m}^2</math>)



MAKE AN ACCESSIBLE ROOF



PLANNING A SOLAR ROOF



URBAN AGRICULTURE





YOU HAVE A PROJECT CREATIVE VEGETABLE ROOFING? THINK GREEN PENCIL...

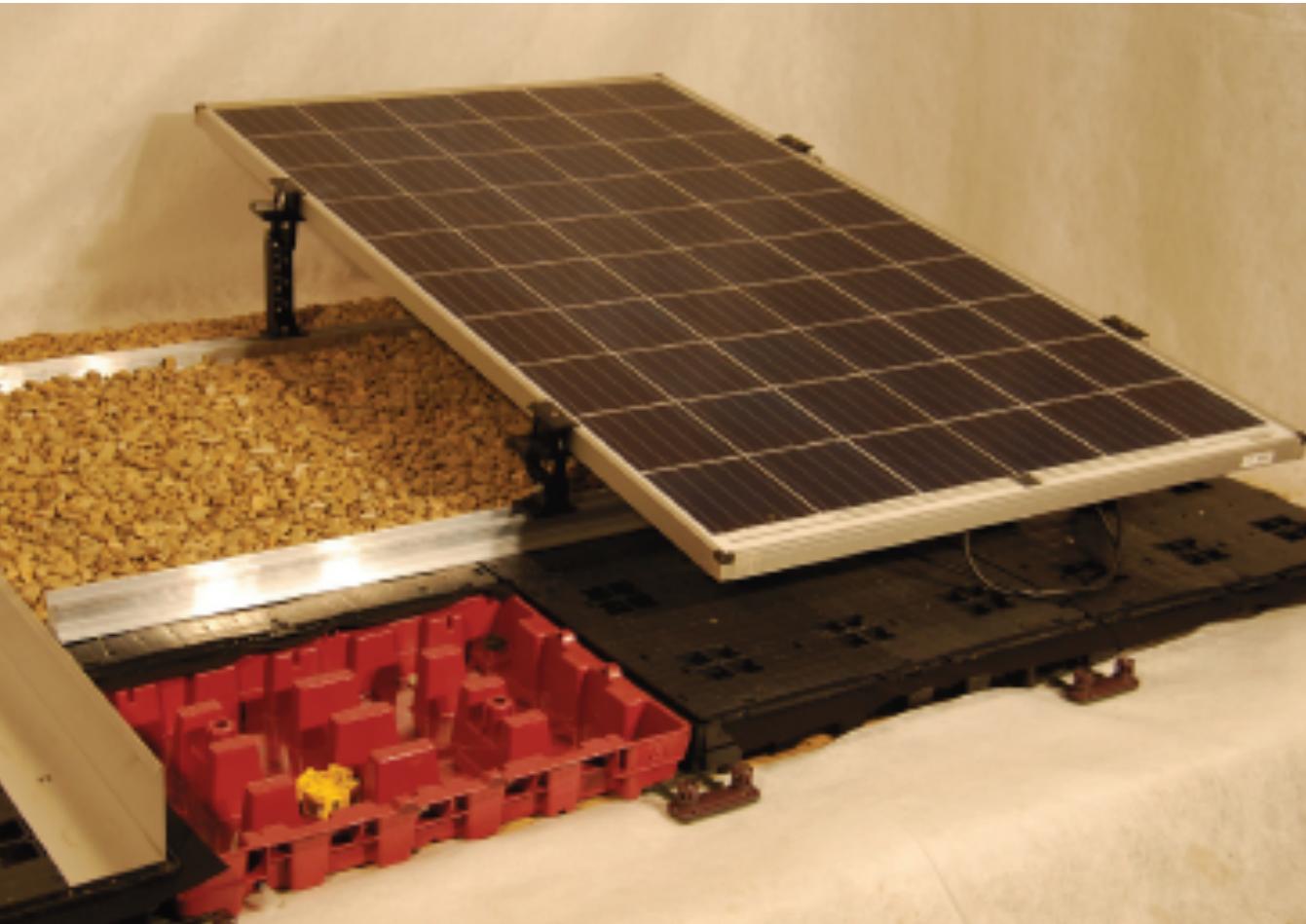


Oasis
WALK

Oasis
SAFETY

Oasis
GREEN

Oasis
SOLAR





350m2 OASIS roof
Gent - Belgium





350m² OASIS roof
Gent - Belgium







OASIS SERVICES

→ FOR BEAUTIFUL AND
DURABLE ROOFS



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Green innovation for smart cities



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