



Landscape visualization

MANUFACTURING & INTERNATIONAL SUPPLY

Stormwater, green roofs & landscape systems

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A coordinated product range for water management, roof planting and outdoor construction.

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Select a contents entry or product link to navigate this digital catalogue.

About HOENSOEY

HOENSOEY Environmental Technology Co., Ltd. develops and manufactures modular systems for stormwater management, green roofs and landscape construction. Based in Quanzhou, China, we connect product development with manufacturing and international supply.



Production facilities



Injection-moulding workshop visualization

20,000 m²

Workshops and technical facilities

25

Injection-moulding machines

From material checks and mould maintenance to component inspection and batch sampling, quality review is part of our production workflow. Product drawings, test reports and packing information support buyer and project review.

QUALITY & PRODUCT DOCUMENTATION

ISO 9001

Sales management*

Intertek

Product testing

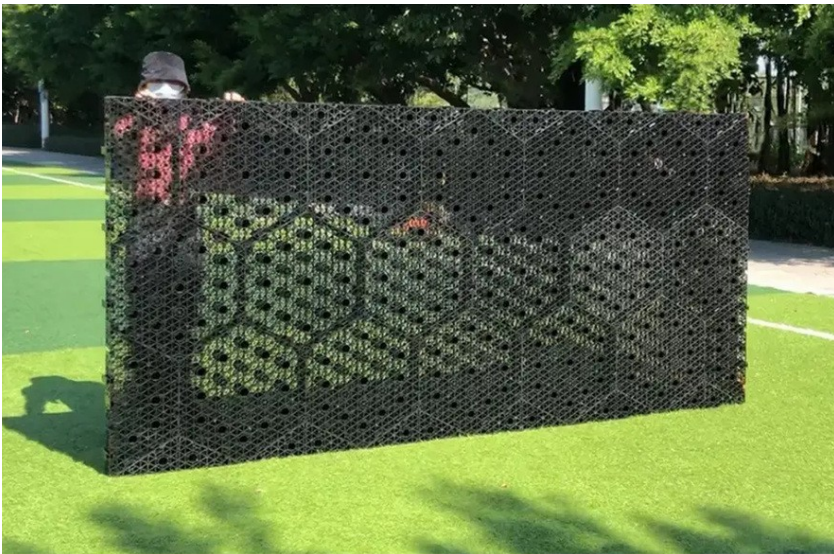
UK / EU

Design registrations

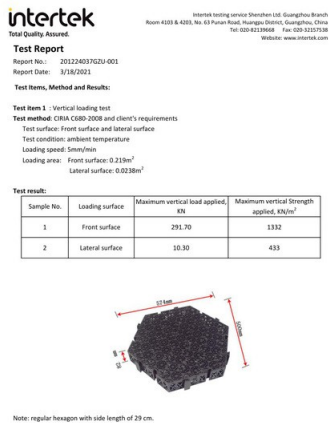
*LEIYUAN entity; sales scope. Documentation applies to its stated entity, product and scope.

Product development. Manufacturing. Supply.

Our product range connects shallow water storage, underground rainwater modules, roof planting and landscape accessories. We work with project buyers, contractors and international distribution partners.



HOENSOEY Cells assembly reference



Intertek test report extract

DEVELOPMENT & TOOLING

Product geometry, mould design and component fit are reviewed around the intended application. Selected OEM and customization programs are agreed by product and order.

QUALITY DOCUMENTATION

Material and component checks are supported by product-specific reports. Request the relevant drawings, test conditions and model references for your technical review.

SUPPORT FOR INTERNATIONAL BUYERS

Samples, quantities, packaging and shipment planning are coordinated with the selected product and delivery destination.

Shallow stormwater management

Factory-assembled modules for a shallow water-management layer beneath designed outdoor surfaces.



HCR-1000 shallow installation visualization (82 mm module depth)

One standard format

HCR-1000 arrives as a complete module, with HOENSOEY Cells assembled into a regular format for site handling and layout.



82 mm

Module depth

1.44 m²

Nominal plan area

9.5 kg/m²

Nominal weight

Standard model	HCR-1000
Length × width × depth	1440 × 1000 × 82 mm
Material / colour	High-quality recycled PP / black
Supply format	Factory-assembled module

[Explore HCR stormwater modules](#)

HOENSOEY Cells inside

The hexagonal cellular components form the internal structure of HCR. Integrated connections align the units while connected voids provide space for water movement.

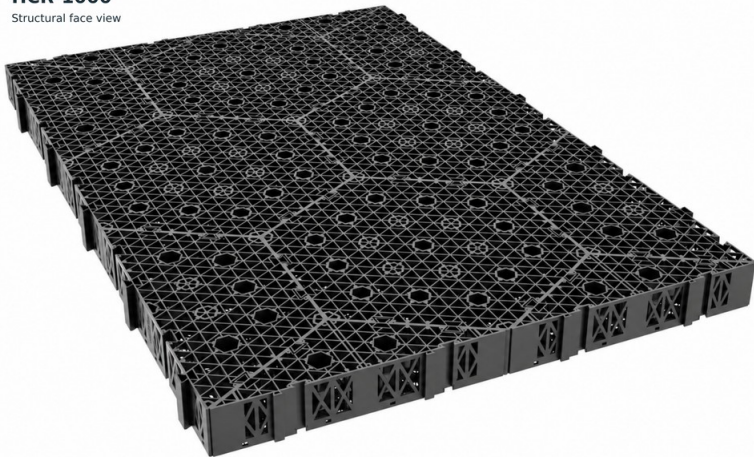
HOENSOEY CELLS INSIDE

HCR-1000 finished module and internal cellular components

01 FACTORY-ASSEMBLED MODULE

HCR-1000

Structural face view



Hexagonal cells and edge components form one finished module.
Factory assembled for project handling and installation.

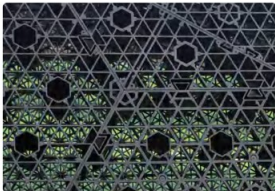
Product and component views are shown at different scales.

02 HEXAGONAL CORE COMPONENT



HOENSOEY Cells • H5082

Main hexagonal module with a fine-perforated face.



03

**INTERLOCKING
CONNECTIONS**

Original joint detail
Integrated buckles
join adjacent
cellular components.

Component family	H5082 / H2582 / H1582 / H1082 / H1382
H5082 reference dimensions	577 × 500 × 82 mm
H5082 reference weight	2.05 kg per component
Cells void-ratio reference	Approximately 95%

Cells reference values apply to the component. Finished HCR storage and structural capacity depend on the assembled configuration and project build-up.

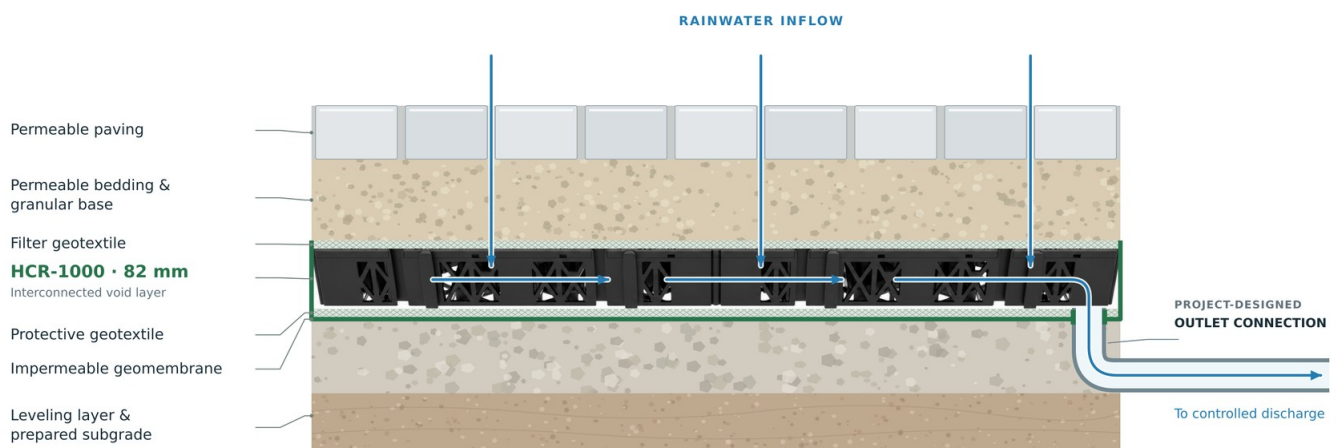
[Component drawings and technical data](#)

A shallow layer for water

The module creates space. The lining, outlets and ground conditions determine how the system uses that space.

SHALLOW STORMWATER STORAGE

Permeable paving · Lined detention example



1 INFLOW

Rainwater passes through the permeable paving, bedding and filter layer.

2 TEMPORARY STORAGE

Interconnected HCR voids hold water temporarily and allow lateral movement.

3 CONTROLLED DISCHARGE

Water is conveyed to an outlet with project-specific discharge control.

Illustrative lined arrangement; not to scale. Build-up, membrane protection and outlet details are project-specific.

Conceptual section, not to scale. The complete build-up follows the project design.

DRAINAGE & ATTENUATION

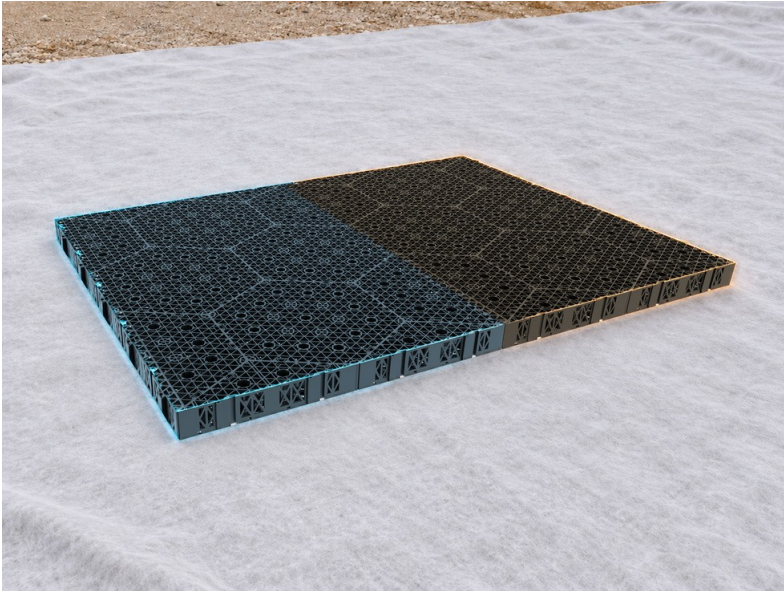
Move water to an outlet or store runoff temporarily before a controlled release.

INFILTRATION & RETENTION

Use a permeable system where ground conditions allow infiltration, or a lined system for planned water storage.

Applications include sports fields, podium landscapes, plazas and designed paved areas.

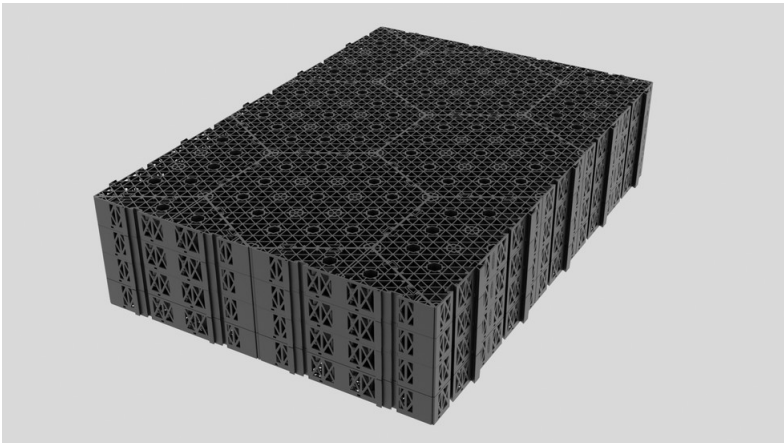
Connected in the field



Colour accents distinguish the two black panels.

PANEL-TO-PANEL CONNECTION

Align the complementary tabs and slots. Engage the joints fully and check that adjoining panels sit evenly.



Original product reference. Layer count follows the approved arrangement.

MULTIPLE LAYERS

Use the specified HexConnector arrangement to help limit sideways movement between stacked layers.

Prepare the base and lining, place the modules in planned rows, complete the connections and inspect the water paths before covering.

Options for the layout



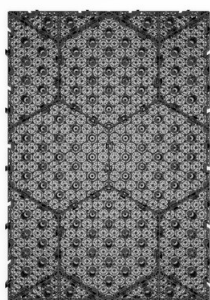
HEXCONNECTOR

Interlayer anti-shift connector for selected stacked HCR arrangements.

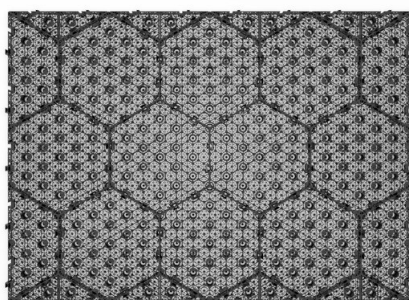


HEXWICK

A capillary wicking column that provides a path from stored water toward the growing medium.



HCR-1000
1000 x 1440 x 82 mm
W L X H



HCR-2000
2000 x 1440 x 82 mm
W L X H

HCR-2000

A wider format for selected large-area projects.

1440 x 2000 x 82 mm
2.88 m² nominal area

HCR-1000 remains the standard starting point. Review the wider format when site access, handling and packing suit the project.

Accessory selection and placement depend on the approved system. Images are not to a common scale.

Ready for organized delivery



Logistics visualization

29

Panels per standard pallet

668.16 m²

Standard pallet load / 40' HC

Reference HCR-1000 loading: 16 pallets × 29 panels × 1.44 m². Product stack height is 2378 mm, or approximately 2528 mm including a 150 mm pallet.

Stretch wrap, edge protection and securing straps protect the stack. Tall pallets occupy one floor layer in the container.

Reference packing for the standard pallet option. Final quantities follow the shipment plan.

Underground rainwater storage

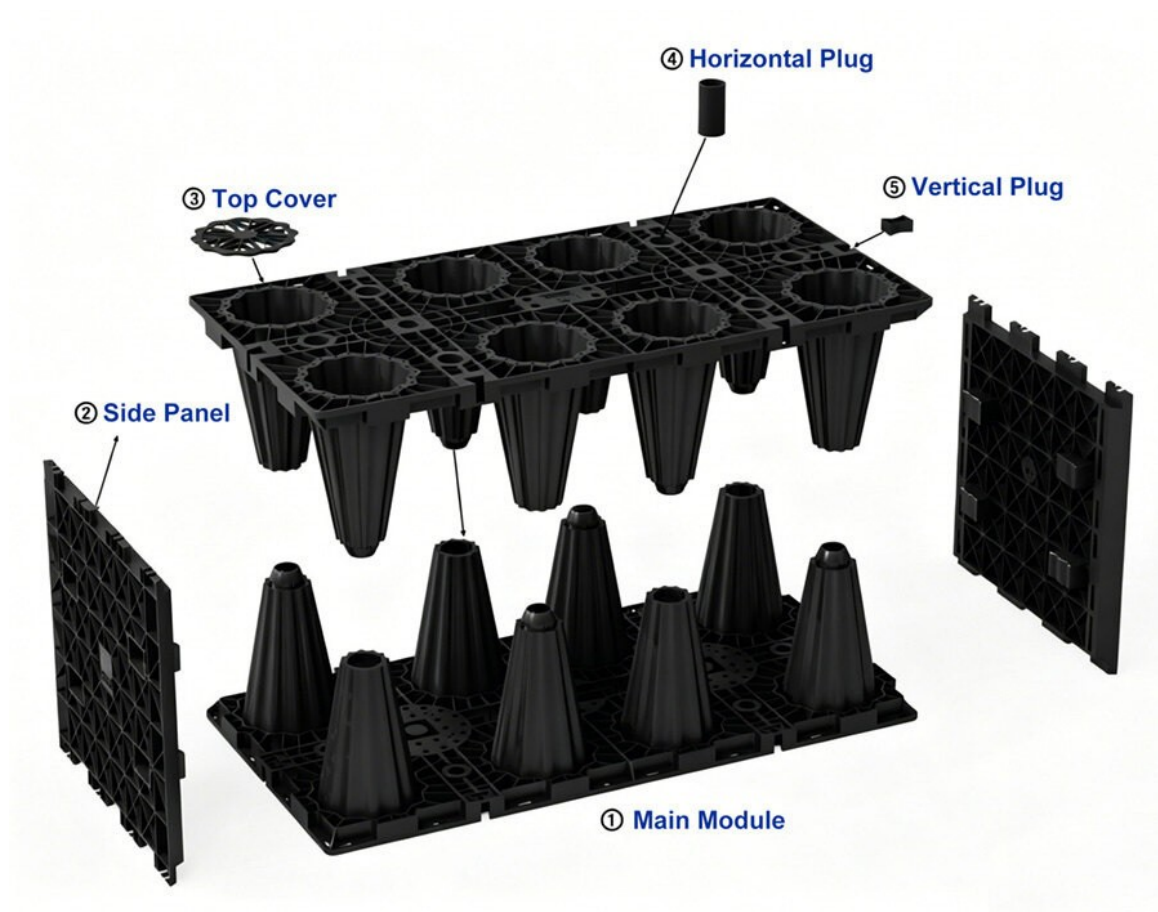
Modular crates and flat-packed panels for attenuation, infiltration and rainwater storage tanks.



Underground installation visualization

M2025 geocellular crates

The M2025 crate system forms underground tanks with adjustable length, width and layer count. Compact components support container supply and assembly at site.



1000 × 500

Plan dimensions / mm

500 mm

Assembled crate height

Main units, side panels, top covers and connectors form the complete tank arrangement. Select the material option for the intended loading and project specification.

[View M2025 product details](#)

ECO & ULTRA

Two material options within the same modular crate family.



ECO

Recycled polypropylene
Black or light blue

ULTRA

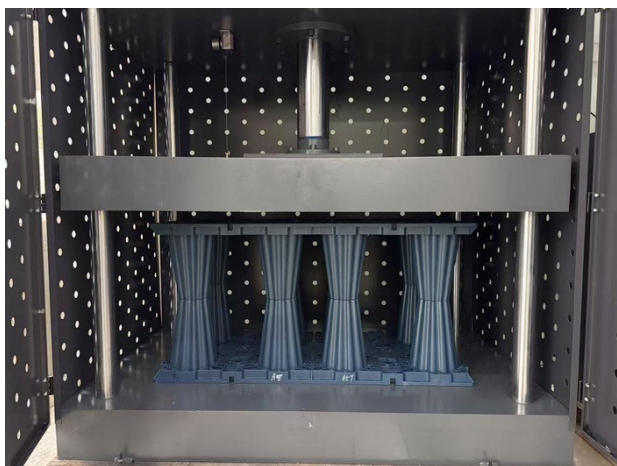
Virgin polypropylene
Deep blue

Reference	ECO	ULTRA
Published compression option	45 t/m²	60 t/m²
Assembled crate envelope	1000 × 500 × 500 mm	1000 × 500 × 500 mm
Gross external volume	0.25 m³	0.25 m³

Compression figures are short-term product references, not permissible traffic loads. Review the relevant material, test setup, load duration and complete tank design.

Gross external volume includes the plastic structure. Request configuration-specific usable storage.

Assembly and technical documentation



Compression test reference



Packing and container reference

ASSEMBLY AT SITE

Prepare the base, connect the crate units and complete the perimeter panels. Coordinate pipe connections, lining and the specified backfill.

TECHNICAL REVIEW

Compression and creep documents are available for M2025 project review. Match the report to the material grade and proposed tank arrangement.

INFORMATION FOR A TANK PROPOSAL

Required usable storage, available tank dimensions, cover and traffic loading, ground conditions, groundwater and inlet/outlet levels.

[Request M2025 technical documents](#)

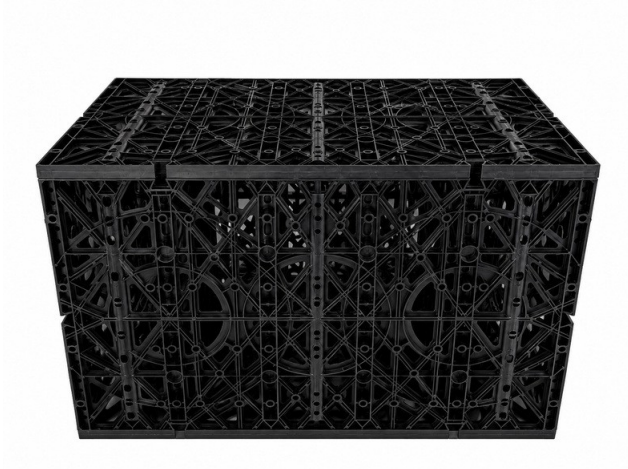
Two heights. One modular footprint.

Flat-packed panels assemble into M2015H and M2015F modules. Both use an 800 × 490 mm footprint.



M2015H

250 mm high
Approx. 92 L per module



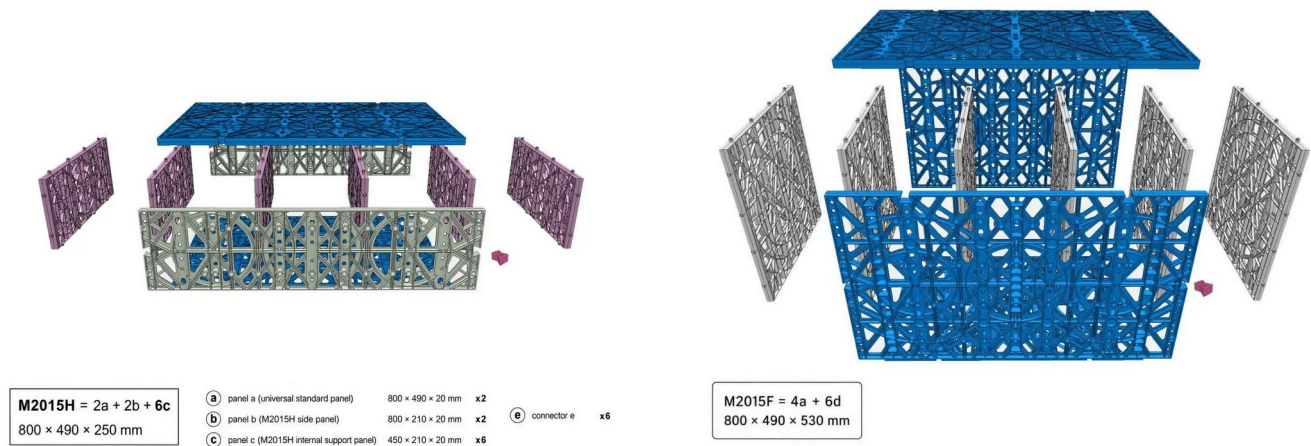
M2015F

530 mm high
Approx. 197 L per module

Reference	M2015H	M2015F
Footprint	800 × 490 mm	800 × 490 mm
Standalone panel set	2a + 2b + 6c	4a + 6d
40' HC reference loading	2050 modules	1200 modules

Storage is a nominal single-module reference. Selected material, support configuration and shared-panel layouts are reviewed for each project.

Shared panels make depth adaptable



M2015H component arrangement

M2015F component arrangement

At a shared tier interface, panel a is counted once. Additional H tiers add 230 mm, while additional F tiers add 510 mm.

Arrangement	Module-only height	Calculation
1 H tier	250 mm	20 + 230
2 H tiers	480 mm	20 + 2 × 230
4 H tiers	940 mm	20 + 4 × 230
1 H + 1 F tier	760 mm	20 + 230 + 510

Heights exclude bedding and cover. Mixed profiles, extra supports and connections follow the approved structural arrangement.

Compact packing. Defined project quantities.



M2015 FLAT-PACKED PANELS

Panels bundle for shipment and can be staged close to the assembly area. Prepare the component schedule before building the tank.

M2025 NESTED COMPONENTS

Main crate components pack compactly. Agree side-panel and connector quantities for the complete tank envelope.

40' HC reference	Modules	Installed gross envelope
M2015H	2050	Approx. 201 m ³
M2015F	1200	Approx. 249 m ³

The installed gross envelope is a packing comparison, not the usable water volume. Final loading follows the component mix and container limits.

[M2015 product and project enquiries](#)

Modular green roof systems

Extensive and semi-intensive tray systems for sedum roofs, rooftop gardens and designed planted terraces.



Rooftop landscape visualization

HT-508 extensive green roof module

An 80 mm polypropylene tray for sedum and shallow planting. Adjustable water-retention components support the selected roof planting strategy.



80 mm

Tray depth

4 / m²

Modules per square metre

1.05 kg

Nominal tray weight

Module dimensions	500 × 500 × 80 mm
Material	UV-stabilised recycled PP
Nominal retention reference	4.3 L/module / 17.2 L/m ²

Retention reference: HT508-TDS-2026-09, Revision A. Configuration and complete roof design apply.

Retention and drainage within the tray



Water collection baskets and tray configuration reference



HT-508-P WATER BASKETS

The tray accommodates up to nine water collection baskets. Their arrangement helps tune water storage within the selected planting system.

Select the basket and drainage arrangement around local rainfall, vegetation, substrate and irrigation. Keep the roof outlets and overflow routes coordinated with the tray layout.

Tray water retention does not represent the water-holding capacity of the entire planted roof.

Modular installation. Stackable supply.



Manufacturing and packing reference from the HT-508 brochure

13,020

Empty trays / 40' HC

3255 m²

Nominal coverage equivalent

INSTALLATION SEQUENCE

Prepare the protected roof surface. Lay and connect the trays, set the water components, then complete substrate, planting and irrigation.

ROOF COORDINATION

Keep access to roof drains. Specify perimeter restraint, maintenance routes and the complete saturated roof load.

Container reference is for empty modules. Confirm the final packing configuration with the order.

HT-5020 semi-intensive green roof tray

A deeper modular tray for lawn, flowering perennials, groundcovers and selected low shrubs in designed rooftop landscapes.



200 mm

Tray depth

4 / m²

Modules per square metre

1.8 kg

Nominal module weight

Module dimensions	500 × 500 × 200 mm
Material	UV-stabilised polypropylene
Tray retention reference	Approx. 3.8 L/module

Planting suitability and water holding depend on substrate, climate and the complete system.

Three integrated components



VERDAXA™ STRUCTURAL TRAY

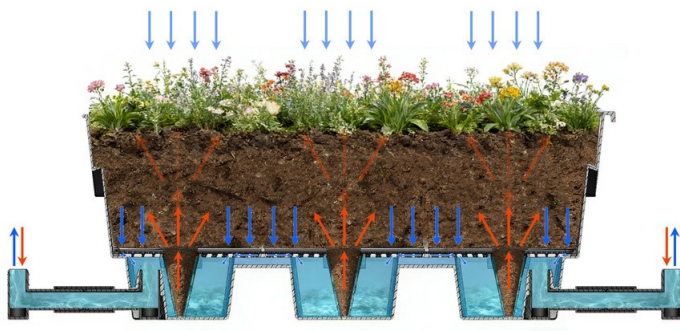
The 200 mm base tray supports the planting layer and incorporates drainage channels and edge details.

HYDROGUARD™ RAISED FILTER

The formed plate separates the growing medium from the drainage cavity. Conical columns provide the designed soil-to-water contact.

U-LINK™ CONNECTOR

The Ø20 mm connector joins adjacent trays and supports drainage continuity through the modular arrangement.



Water-storage, drainage and wicking concept. Not to scale.

[HT-5020 system details](#)

The planting brief guides the tray choice



Green roof application visualization

Selection point	HT-508	HT-5020
Tray profile	80 mm	200 mm
Typical planting	Sedum / low groundcover	Lawn / perennials / low shrubs
Water-management detail	Adjustable baskets	Raised filter + U-Link
Installation planning	Edge-connected trays	Interlocked modular grid

For HT-5020, position the connectors, interlock the trays and install HydroGuard. Add the specified substrate and vegetation, then complete irrigation and perimeter details.

Both systems require a coordinated roof structure, waterproofing, drainage and maintenance plan.

Landscape & ground products

Complementary products for irrigation layout, equestrian surfaces and permeable outdoor paving.



Landscape visualization

Irrigation pipe fixing hooks

Hold drip irrigation tubing in place along planting beds, landscaped areas and garden watering lines.



LGH25 fixing hook

Application: secure irrigation tubing to the soil

250 mm

Overall length

≤20 mm

Pipe diameter

22 g

Approx. hook weight

Push the pointed end into suitable soil and engage the curved hook over the pipe. The serrated shaft helps hold the irrigation line in position.

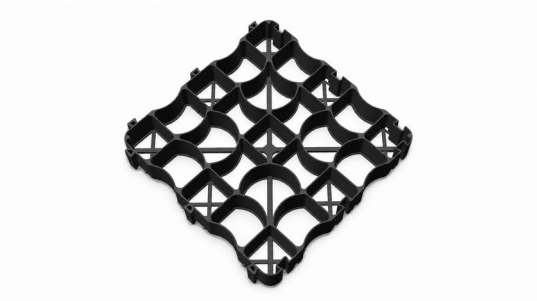
Material / colour	Recycled PP / black
Standard packing	370 pieces / carton
Carton size	450 × 265 × 290 mm

Paddock mud control grids

Create a stable, draining surface for horse paddocks, stalls and equestrian areas using interlocking grids, a prepared base and suitable infill.



Applications: horse stalls and equestrian ground surfaces



Models	LY950A / LY950B
Material	HDPE
Panel size	13³/₈ × 13³/₈ × 2 in

Interlock the panels, fill with the specified sand, gravel or footing material, and maintain the designed surface drainage paths.

Ceramic permeable pavers



Permeability demonstration image

A fired ceramic paving option with connected porosity. Review the paver together with the bedding, supporting layers and designed drainage route.

FORMATS & APPEARANCE

Selected sizes range from 100 × 200 mm to 600 × 900 mm. Colour options include red, yellow, brown and grey.

LANDSCAPE APPLICATIONS

Pedestrian routes, park walkways, residential outdoor spaces and commercial plazas. Confirm thickness and finish for the project.

Product and supply support

We coordinate the product specification with manufacturing, quality checks and shipment planning.



Warehouse and packing visualization

PRODUCTION CHECKS

Material review, component inspection and batch sampling support consistent supply. Product-specific reports are available for technical review.

DISTRIBUTION & OEM

Discuss order volume, material, colour, branding and packaging. Customization and tooling are agreed for the selected product and program.

[Discuss project supply or distribution](#)

Product directory

Select a product to open its current information page.

HCR Series	Shallow stormwater modules	↗
HOENSOEY Cells	Internal cellular components	↗
M2025	Geocellular stormwater crates	↗
M2015 Series	Flat-pack rainwater modules	↗
HT-508	Extensive green roof modules	↗
HT-5020	Semi-intensive green roof trays	↗
LGH25	Irrigation pipe fixing hooks	↗
LY950A / LY950B	Paddock mud control grids	↗
Ceramic Pavers	Permeable landscape paving	↗

PROJECT ENQUIRIES

Send the application, location, drawings, dimensions or area, required quantity and delivery destination. For water-storage projects, add the storage target, available depth and design loads.

Technical note: Dimensions and weights are nominal. Usable storage and structural suitability depend on the specified configuration and complete project design. Compression test references are not permissible traffic loads. Request current drawings and reports before specification. Application and packing visualizations illustrate concepts, not completed project references.



Landscape visualization

HOENSOEY

Tell us about your next project

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