



RAINSMART®

—
STORMWATER MODULES



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RAINSMART® STORMWATER MODULES



The RainSmart® system is suited for subsurface infiltration, retention and detention stormwater applications.

Manufactured using recycled materials, RainSmart provides a lightweight, structural component to an engineered design. The system is ideally suited for the construction of underground infiltration, retention, detention tanks, grass swale, subsurface interception channels, septic leach drains and lightweight void fillers for roof garden and planter box applications.

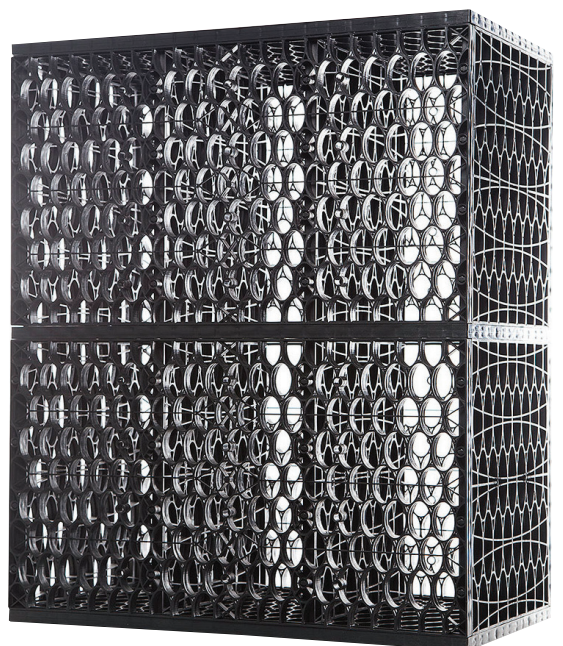
The RainSmart system supersedes traditional gravel and pipe-based systems. The system provides a void space ratio of over 95%, compared to 30 – 40% in typical gravel and pipe based systems. Consequently, the RainSmart system offers a smaller footprint for the same storage volume. This provides a significant saving in the amount of excavation, soil transport, imported clean aggregate, thus reducing earthworks related installation costs and causes minimum site disruption.

Modules are available in kit form, making transporting economical and easy to handle. The lightweight and stackable nature of the tank modules ensures installation is quick and easy, eliminating the use of heavy machinery.

With a modular design and structural capabilities, RainSmart distributes loads evenly and allows for usage in both trafficable and landscaped areas offering a high safety factor. The design also enables the user to create any shape and size of the underground stormwater structure, without disturbing the surrounding site and maximising land use.

RainSmart systems constructed with linear access pipes are invaluable for inspection and maintenance purposes. This allows the designer to efficiently control the build up of sediments in the tank and for flushing the system if ever required.

System sizing tools and standard CAD drawings in dwg. and pdf. are available for the RainSmart system on request.





PRODUCT CODES >			
Code	Product	Size	Modules/m ³ *
76349	5 Plate Tank Single	0.715 x 0.4 x 0.44	8.37
76354	5 Plate Tank Double Layer	0.715 x 0.4 x 0.86	4.28
13635	5 Plate Tank Triple Layer	0.715 x 0.4 x 1.28	2.88
13666	5 Plate Tank Quad Layer	0.715 x 0.4 x 1.7	2.16
76351	5 Plate Tank Penta Layer	0.715 x 0.4 x 2.12	1.74

*Modules required per 1m³ of stormwater storage, considering a 95% void ratio. 4 and 7 plate options available.



FEATURES >

- ✓ A **robust yet lightweight system** that is simple to install without specialised equipment
- ✓ **Environmentally friendly**
- ✓ **Recharges groundwater table** through infiltration
- ✓ **Mitigation of downstream flooding**
- ✓ **Removes the need for above ground ponds and tanks** that use valuable space and create health and safety risks
- ✓ RainSmart linear access systems offer an **economical and low maintenance system**
- ✓ **Modular structure** for design flexibility
- ✓ **Trafficable** when installed with \geq 600mm pavement cover



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DRAINAGE CELL

RainSmart® Drainage Cell is a light weight three-dimensional drainage panel with a high load-bearing capacity, used for subsurface water management.

RainSmart Drainage Cell provides a perfect solution for subsoil drainage and gas collection systems, as well as low impact design and weight sensitive applications such as roof gardens. The drainage cell offers a uniform surface along with an internal void space for effective drainage of excess water. It will also provide drainage behind concrete panels, concrete block and timber retaining walls. When used in roof garden applications it provides water retention for passive irrigation, helping to build a perch water table in the above soil profile for the vegetation to flourish during prolonged dry periods.

Made from recycled polypropylene, RainSmart Drainage Cell is inert to soil borne chemicals and bacteria. RainSmart cells shallow and effective drainage profile helps landscapes to make use of mature plants on roof gardens that need soil depth and water retention properties. High summer temperatures can cause thermal expansion in concrete and lead to waterproofing cracking. The unique design of the RainSmart Drainage Cell and its void properties helps this heat to escape, reducing the risk of cracking and so enhancing the life of buildings.

This product is environmentally friendly, made from selected recycled polypropylene that recharges the groundwater table through the principle of infiltration when used on any natural ground surface. It has a unique diamond cup structure.

Deck loads are reduced, weighing only 3.2 kg/sqm compared to 250 kg/sqm of gravel for the same effective drainage.

RainSmart Drainage Cell provides a cost-effective and easy to install choice over alternative and traditional aggregate drainage layers used in retaining wall applications. It will reduce the thickness by up to 75% owing to the high void ratio of the RainSmart cell. It is also a lot simpler and faster to install, allowing large areas to be prepared for backfilling without the need to import different aggregates (backfill and drainage aggregate) into the same backfilling process.

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FEATURES >

- ✓ High compressive **load carrying capacity of up to 140 tons/m²**
- ✓ **High lateral flow capacity**
- ✓ **Maintains actual void size for effective drainage** after backfill and compaction
- ✓ **Thin which reduces depth of cover** and the use of mature planting in shallow conditions is enabled
- ✓ **Holds and creates a perch water table**, providing ideal moist conditions for plant growth
- ✓ **Reduces hydrostatic forces** upon sub-grade walls

PRODUCT CODES >

Code	Size	Product Plate
76284	0.6m x 0.5m	30mm (Plates)
76285	0.6m x 0.5m	50mm (Plates)



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GAIN MORE GROUND



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