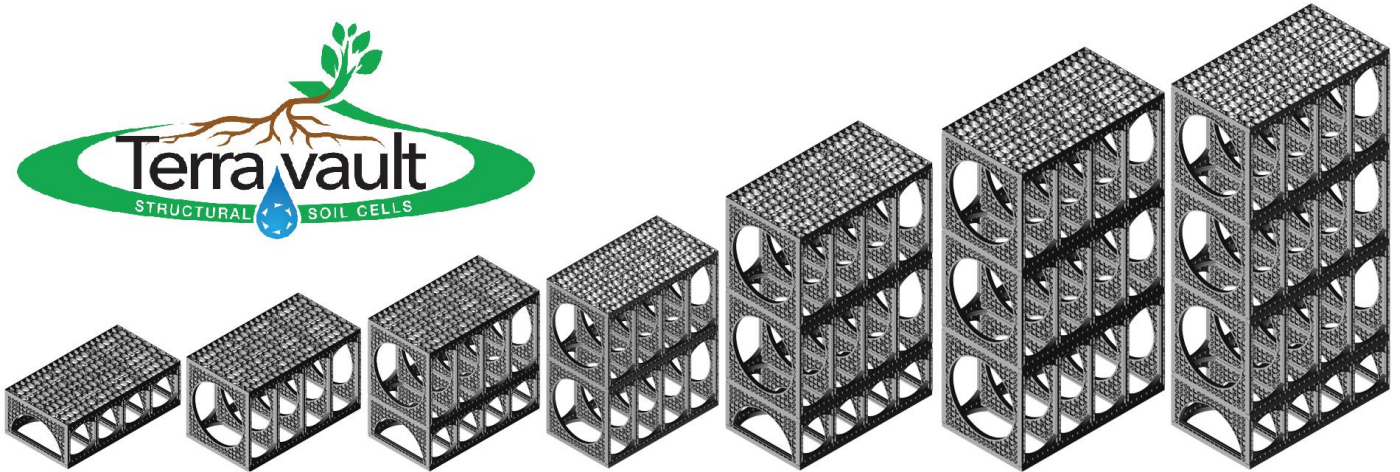


RAINSMART® TerraVault-I Structural Soil Module SPECIFICATION SHEET.



Terravault-I Module Dimensions:

Module (Unit)	Width (mm)	Width (inches)	Length (mm)	Length (inches)	Height (mm)	Height (inches)
Mini (Half)	400	15.75	715	28.15	240	9.45
Single (1)	400	15.75	715	28.15	440	17.32
Single + Mini (1.5)	400	15.75	715	28.15	660	25.98
Double (2)	400	15.75	715	28.15	860	33.86
Double + Mini (2.5)	400	15.75	715	28.15	1080	42.52
Triple (3)	400	15.75	715	28.15	1280	50.39
Triple + Mini (3.5)	400	15.75	715	28.15	1500	59.06
Quad (4)	400	15.75	715	28.15	1700	66.93
Quad+ mini (4.5)	400	15.75	715	28.15	1920	75.59
Penta (5)	400	15.75	715	28.15	2120	83.46

Soil Storage Volume:

Module (Unit)	Tank Volume (L)	Tank Volume (cf)	Tank Volume (gal)	Soil Storage Volume (l)	Soil Storage Volume (cf)	Soil Storage Volume (gal)
Mini (Half)	68.52	2.42	18.10	65.12	2.30	17.20
Single (1)	125.77	4.44	33.26	119.47	4.22	31.60
Single + Mini (1.5)	188.88	6.67	49.90	179.25	6.33	47.35
Double (2)	245.94	8.69	64.97	233.64	8.25	61.72
Double + Mini (2.5)	308.94	10.91	81.61	293.36	10.36	77.50
Triple (3)	366.08	12.93	96.70	347.77	12.28	91.87
Triple + Mini (3.5)	429.00	15.15	113.33	407.48	14.39	107.64
Quad (4)	486.29	17.17	128.46	461.97	16.31	122.03
Quad+ mini (4.5)	549.06	19.39	145.05	521.60	18.42	137.80
Penta (5)	606.32	21.41	160.17	576.00	20.34	152.19

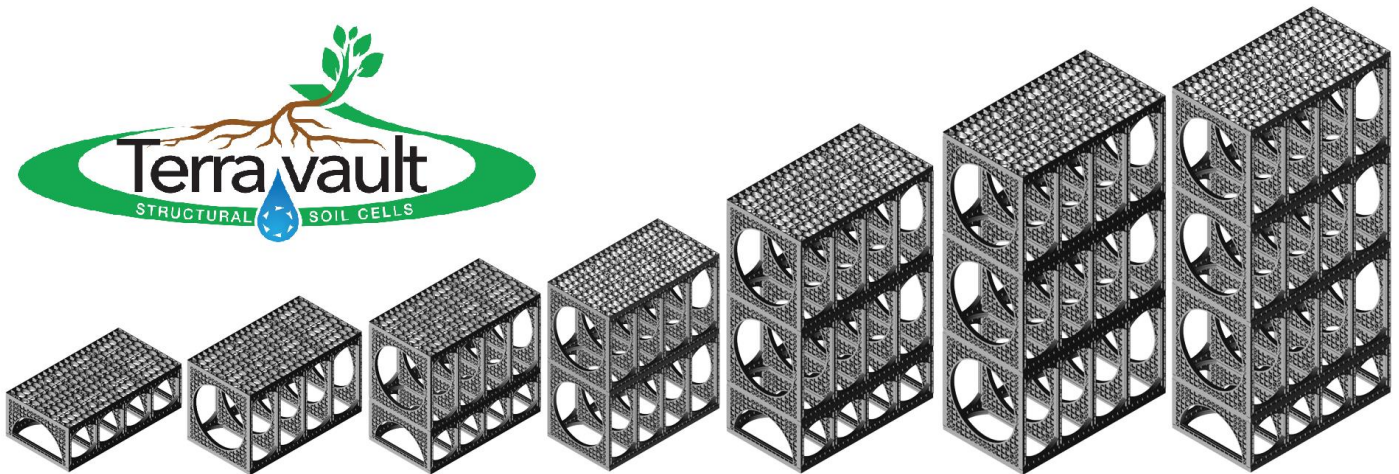


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TerraVault- I Module STD 5 Internal Plate

Feature:	Description	Value	Unit
Void Volume	Internal Void Volume available for uncompacted soil and root zone vs. that made up of plastic	>95	%
Surface Void Area	Open surface area where the root system can freely grow unobstructed in or out of the units.	>95	%
Service Temperature	Operating temperature where the units can be expected to perform adequately.	07 to 60°C (-44 to 140°F)	°C (°F)
Material Content	90% Selected Recycled Polypropylene + 10% proprietary mix.	100%	%
Biological & Chemical Resistance	Unaffected by moulds, algae, Soil borne Chemical, bacteria and bitumen, polypropylene is very inert	**	**
Short Term Compressive Strength Unconfined	Short Term Vertical Compressive Strength* Using a full -size plate that completely covers the top of the unit determines the pressure required to crush the entire unit	18 (25.60)	tons/sqm (PSI)
	Short Term Lateral Compressive Strength* Using a full -size plate that completely covers the top of the unit determines the pressure required to crush the entire unit	18 (25.60)	tons/sqm (PSI)
Rib Thickness & Product Weight	Plate Thickness	19-20mm	Per Pcs
	Weight of Minimum 5 internal support plates per single unit	57-59 (125-130)	Kgs /Cbm (Lbs/Cbm)
Long Term Deflection Unconfined	Used to determine long-term performance of the system *Single Module tested		
	Loads Applied	Initial & Sustained	
	Estimated long term deflection (Vertical creep) projected 40 yrs ** applied test load of 65 kN / m ²	1.15% (5.06mm)	65 kN/sqm (6.62t/sqm)
	Estimated long term deflection (Lateral creep) projected 40 yrs ** applied test load of 65 kN/m ²	1.05% (4.20 mm)	65 kN/sqm (6.62t/sqm)

* All compressive strength listed is for single cell unit, recommended safe design value to be worked out, safety factors to be incorporated.

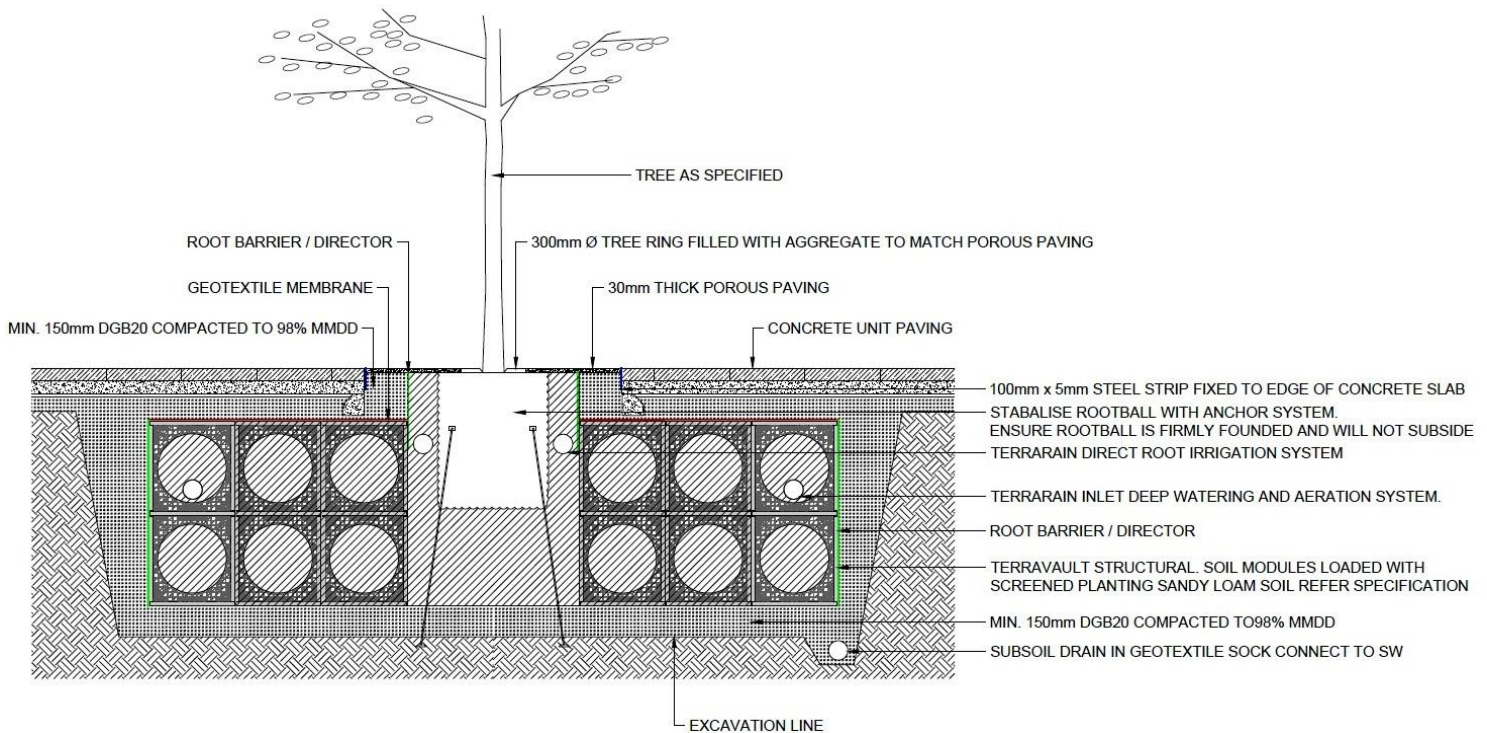
**Derived from long term Extrapolated Creep testing data, 415 days minimum.

****Heavy Duty Tank for High load bearing capacity are also available.**

NOTE: All 'RAINSMART Products and Systems are DESIGN REGISTERED.

Safety Factors: Engineers, designers and geotechnical engineers should design and calculate safety factors to a serviceable limited state to suit specific project. In case of doubt, consult your nearest distributor or representative.

Disclaimer: All information provided in this publication is correct to the best knowledge of the company and is given out in good faith. This information is intended only as a general guide, no responsibility can be accepted for any errors, omissions or incorrect assumption. As each project is unique, and as Rainsmart Solutions Pty. l td. and its distributors and agents worldwide have no direct control over the methods employed by the user in specifying, installing or supervising of its products hence no responsibility is accepted by RAINSMART Solutions Pty Ltd. and its distributors and agents worldwide. Users should satisfy themselves as to the suitability of the product for their purpose.

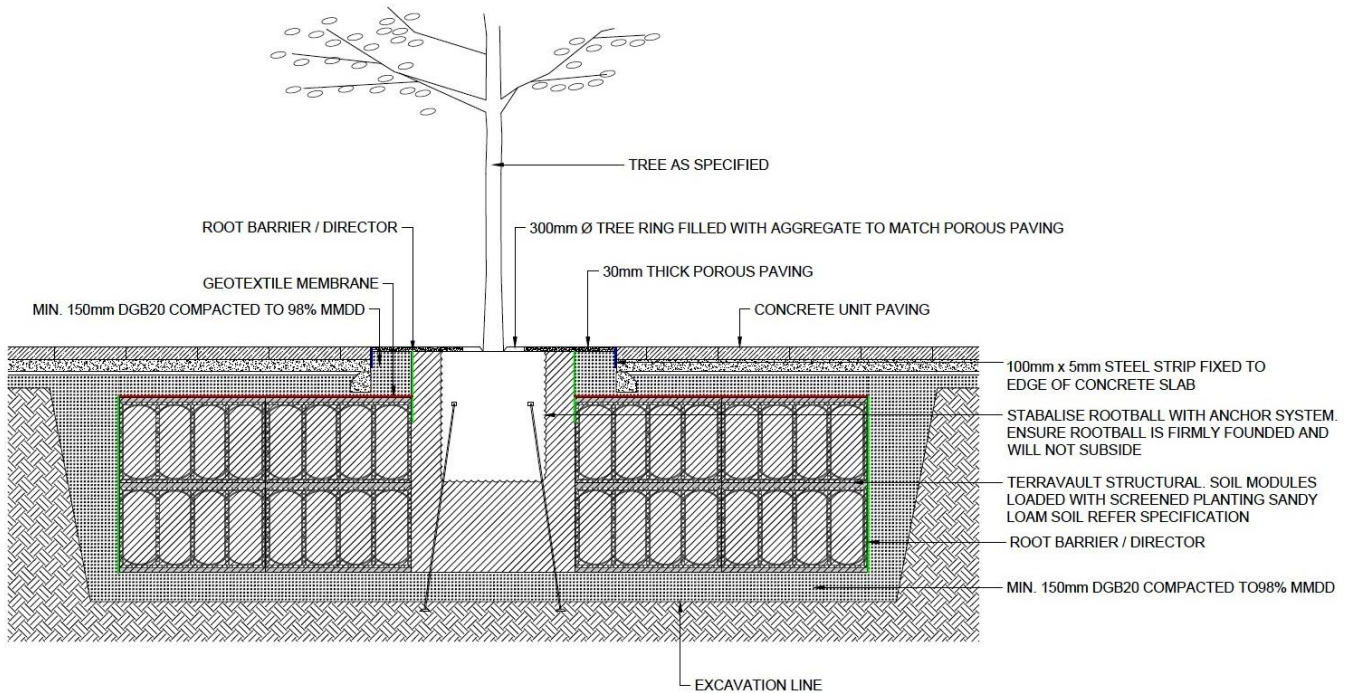


Terra Vault Modules are modular units that assemble to form a skeletal matrix that supports relevant pavement loads while providing large volumes of un-compacted soil within the structure for free root growth.

The open, skeletal matrix provides a maximum growth zone for tree roots. More than 95% of the Internal Void volume is available for un-compacted soil and root growth.

Traditionally rock and soil mix use to provide support for pavement, while permitting some root growth within the pavement. Terra Vault System have moved this principle forwarded by entirely replacing the rock (80% of the total volume) the engineered modules provide the structural strength for pavement loads whilst providing free un-compacted root zone for trees.





TerraVault™ System Advantages at Glance:

- ✓ **Heavy Load bearing capacity.**
TerraVault Modules have a high load bearing capacity of up to 65 t/sqm, if required
- ✓ **Modular Structure provides Design Flexibility**
Modular Nature of the system helps designers to create any shape, any size and fits tight spot.
- ✓ **Use Strength with Flexibility.**
Reduce or Increase the number of internal support plates to use achieves Required load rating whilst keep costs low.
- ✓ **High Internal Void Ratio.**
TerraVault Modules have 95% internal void Ratio, meaning more space for un-compacted soil and roots and water management. Allowing healthy root and plant growth.
- ✓ **High Surface void Ratio.**
Up to 95% surface void ratio providing free un-obstructed root growth and movement in the un-compacted soils.
- ✓ **Quick & Lightweight Easy to install.**
TerraVault Modules are light weight and easy to install by unskilled labor, without the need of any heavy Machinery
- ✓ **Available in Kit form.**
Supplied in kit form its easy delivery and handling and reduces transport costs.
- ✓ **Easy to Infill and Top Up.**
Unlike other systems, this is a single component module which is easy to infill and lock in place. Reduces installation time and costs.
- ✓ **Environmentally Friendly.**
Made from Recycled Polypropylene the Terra Vault Modules are Green label Certified.
- ✓ **High Lateral Load Capacity**
The TerraVault Modules have a high lateral load carrying capacity of > 18 t/sqm. Internal plate layout ensures uniform load distribution and load capacity. Lateral forces must also be considered for engineering design of tree pits, when in proximity of traffic areas.
- ✓ **Interlocks**
TerraVault units lock together vertically and laterally if required to form a single structure with excellent modular strength, both vertically and laterally.
- ✓ **Enhances and Recycles Stormwater.**
There are many WSUD methodologies to capture and utilize valuable rainfall using the TerraVault system and other Rainsmart product range to enhance growth of trees in an Urban Environment.



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