



Applications

- Roads
- Streetscaping
- Car Parks
- Plaza Paving

mastaVAULT TreeLite

mastaVAULT TreeLite 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. mastaVAULT MegaTree 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 soil for root zone to grown and trees to flourish in an urban environment.

mastaVAULT TreeLite Specifications				
Properties	Unit	Half Module [^]	Single Module [^]	Double Module [^]
Length	mm (in)	715 (28.75)	715 (28.75)	715 (28.75)
Width	mm (in)	400 (15.75)	400 (15.75)	400 (15.75)
Height	mm (in)	240 (9.45)	440 (27.16)	860 (33.86)
Module Volume	L	68.52	125.77	245.94
Soil Storage Volume	L	65.12	119.47	233.64
Void Area	%	95	95	95
Surface Void Area	%	95	95	95
Service Temperature	°C (°F)	07 to 60°C (-44 to 140°F)	07 to 60°C (-44 to 140°F)	07 to 60°C (-44 to 140°F)
Recycled Content	%	90% Selected Recycled Polypropylene + 10% proprietary mix.		
Biological & Chemical Resistance	-	Unaffected by moulds, algae, Soil borne Chemical, bacteria and bitumen, polypropylene is very inert		
Short Term Compressive Strength*	ton/sqm (PSI)	18 (25.60) - Vertical and Lateral		
Rib Thickness & Weight	mm Kgs /Cbm (Lbs/Cbm)	19-20 per piece - Plate Thickness 57-59 (125-130) (Minimum 5 internal support plates per single unit)		
Long Term Deflection Unconfined - Used to determine long-term performance of the system *Single Module tested				
Loads Applied		Initial & Sustained		
Vertical Creep	65 kN/sqm (6.62t/sqm)	1.15% (5.06mm) (Estimated long term deflection (Vertical creep) projected 40 yrs ** applied test load of 65 kN/m ²)		
Lateral Creep	65 kN/sqm (6.62t/sqm)	1.05% (4.20 mm) (Estimated long term deflection (Lateral creep) projected 40 yrs ** applied test load of 65 kN/m ²)		

* 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 day minimum

[^]Other sizes available