Elmich Landscape Roof

Intensive Green Roof System

Creating Cities
Where Urban Meets Nature

Our Innovation Your Solution

Elmich Landscape Roof creates green spaces in ever increasing urbanized areas. Extending beyond the aesthetic value, the landscape roof promotes biodiversity, enhances thermal efficiency and the amelioration of pollutants. It also performs at source filtration of filters stormwater runoff and reduces peak flows at source, mitigates urban heat island effect and also lowers reduces energy demand of buildings by reducing minimising heat absorption on rooftops.

Elmich Landscape Roof

Elmich Landscape Roof has wide applicable range in the landscape, building and construction industries and benefits both the buildings on which they are installed as well as their immediate urban environments.

VivoCity Roof Garden, Singapore

About Landscape Roof

A landscape roof (intensive green roof) is a roof with vegetation ranging from lawns, flowering plants and shrubs to trees planted in soil media on a concrete roof surface or in planter boxes. A typical build up would include a root-resistant waterproofing membrane to prevent damage by invasive plant roots and a drainage layer.

It is a visually attractive and environmentally friendly alternative to traditional concrete roofs. It increases accessible amenity space, filters stormwater at source, and reduces peak flows that may lead to downstream flooding. It prolongs the life of the waterproofing membrane as well as the roof skin by shielding the roof from UV exposure and diurnal temperature fluctuations. It also enhances sound attenuation.

Surrounding areas and habitable space below a living roof are cooled by evapotranspiration by the vegetation and the inherent thermal shielding benefit provided by the landscape roof. This in turn reduces energy usage, cuts down CO2 emissions and mitigates Urban Heat Island Effect.

HDB Carpark Roof Garden, Blk 28 Dover Crescent, Singapore

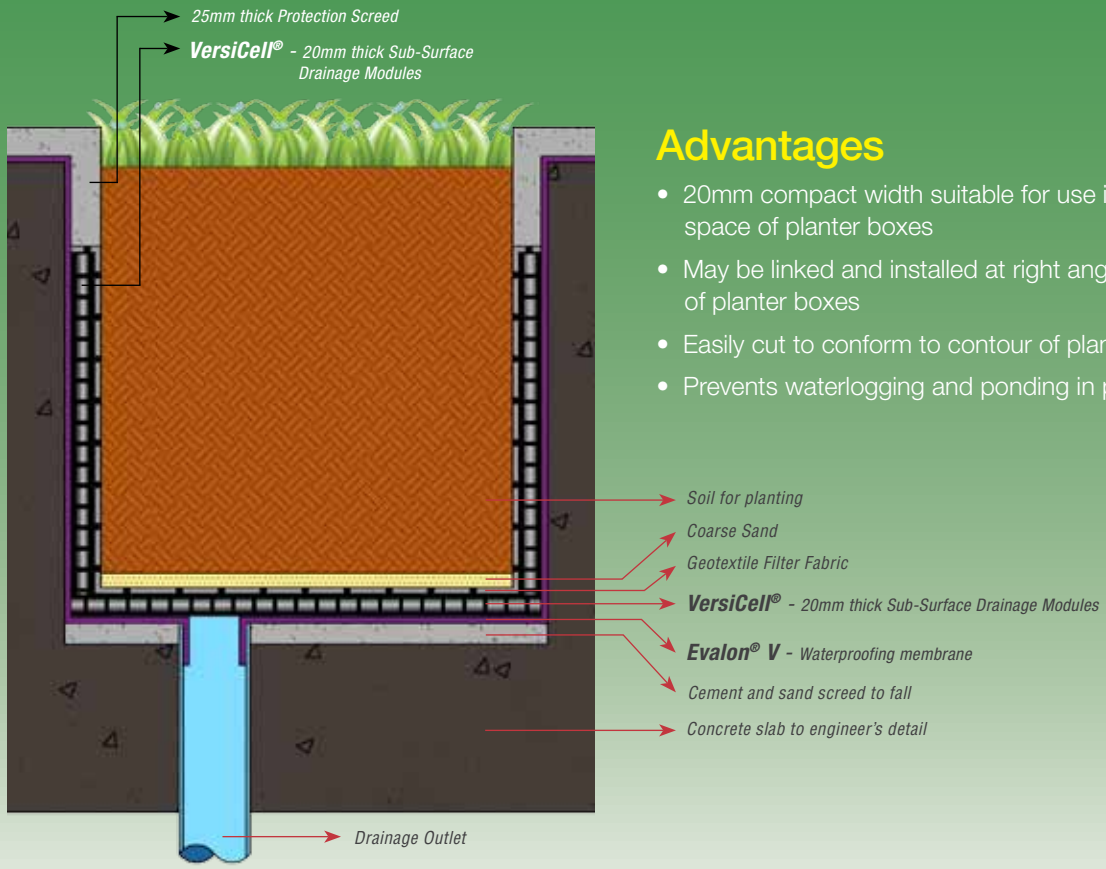
HDB Carpark Roof Garden, Blk 88 Tanglin Halt Road, Singapore

VersiCell® 3050 Landscape Deck

Advantages

- Easy and quick to install for large areas
- Provides protection for waterproofing membrane
- Lightweight, with high compressive strength
- Enhanced drainage flow rate prevents waterlogging in large areas

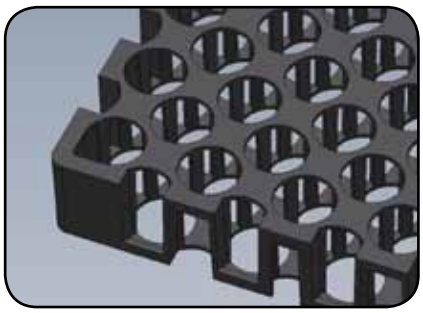
VersiCell® 2050 Planter Box



Advantages

- 20mm compact width suitable for use in confined space of planter boxes
- May be linked and installed at right angles up the sides of planter boxes
- Easily cut to conform to contour of planter boxes
- Prevents waterlogging and ponding in planter boxes

Technical Specifications



Sub-Surface Drainage Modules

VersiCell® is designed and engineered for sub-surface drainage as well as providing waterproofing membrane protection and heat and sound insulation.

VersiCell® eliminates use of heavy gravel aggregates for sub-surface drainage and screeds for waterproofing membrane protection. Its low-profile and high compressive strength allows greater soil depth that provides greater flexibility in plant selection.

Advantages

- Provides efficient drainage
- Root and rot resistant
- Lightweight and high compressive strength
- Easy and quick to install

Waterproofing Membrane

Evalon® V, is a homogeneous ethylene vinyl acetate (EVA) terpolymer thermoplastic waterproofing membrane according to German Standards DIN 18531-2 and DIN 18195-2.

Evalon® V, is ISO 14025 certified as an environmentally-friendly product. Its high solids content (>90%) and FLL certified root-resistance makes it an extremely stable membrane with superior properties for roofing and planter applications.

Advantages

- Lightweight
- UV-resistant
- Root and rot resistant
- Easy and quick to install

VersiCell®

Material	Recycled polypropylene
Size	500mm x 500mm*
Height	
VersiCell® 3050	30mm
VersiCell® 2050	20mm
Weight	
VersiCell® 3050	~ 2.5kg/m^2
VersiCell® 2050	~ 2kg/m^2
Colour	Black
Compressive Strength	
VersiCell® 3050	max. 800kN/m^2
VersiCell® 2050	max. 800kN/m^2
Discharge Capacity[1]	
VersiCell® 3050	~16.5l/m.s
VersiCell® 2050	~13.0l/m.s

[1] *@ 1% gradient*

Surface Void Area	~62%
Internal Void Area	~95%
Biological / Chemical Resistance	Unaffected by moulds and algae Good resistance to alkali and bitumen

**also available in 500 mm x 250 mm for VersiCell® 3050*

VersiCell® is also known as Nordrain® and Nordrain® V.
International patents pending.

A security hologram has been applied on all our products to ensure that the end-user receives the best quality and original Elmich product.

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