VersiWeb®

Cellular Confinement System

ELMICH

We make the difference.
The Elmich Difference.

SINGAPORE GREEN BUILDING PRODUCT SGBC EXCELLENT

100% Recyclable

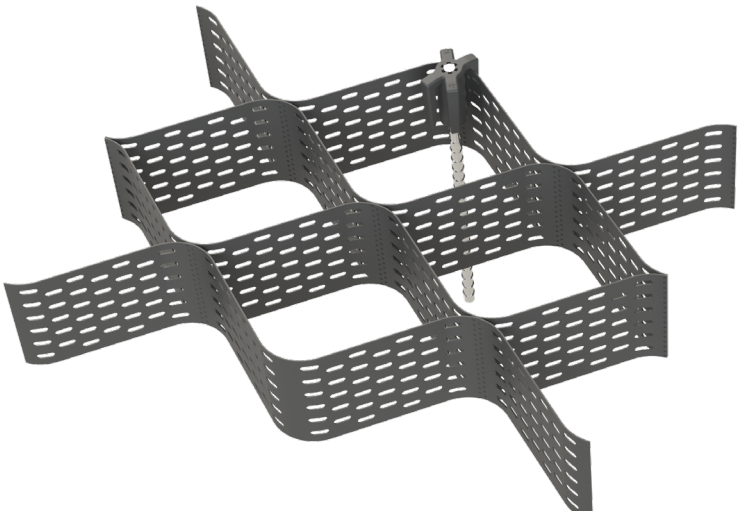
VersiWeb®

VersiWeb® consists three confinement cells of thicknesses ranging from 100 mm to 200 mm for various surface infill depths. With complementing accessories, VersiWeb® offers Developers and Architects a long-term measure for erosion control and slope stabilisation.

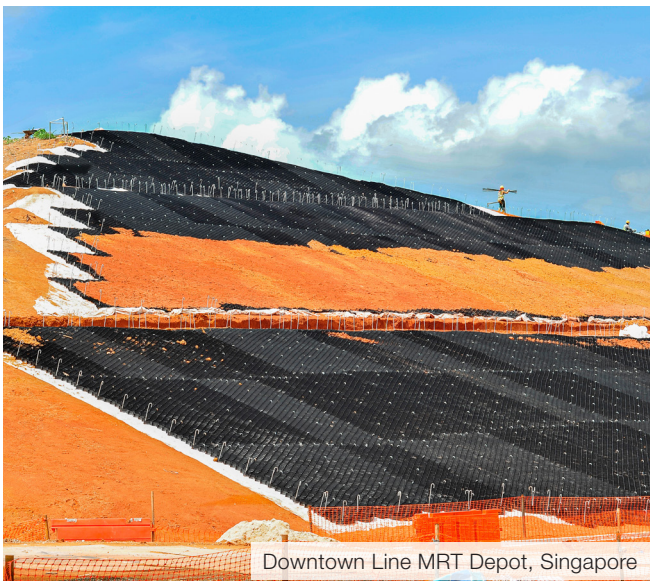
About VersiWeb®

VersiWeb® is a cellular confinement system comprising strips of perforated, expandable and flexible thermoplastic that are ultrasonically bonded to form a honeycombed matrix network of cells. VersiWeb® provides an economical and effective measure for erosion control and slope stabilisation by preventing movement of infill material within the individual cells and provides stability by acting as a counterweight on sloped areas. The structural and shear strength is enhanced when installed in layers.

VersiWeb® is secured onto the slopes at intervaled anchor points according to the directions of geotechnical engineers. These anchor points use conventional steel J-pins or rebars with VW Anchor Caps for a more efficient installation, both to be of adequate strength designations.



Rebar Anchor with VW Anchor Cap



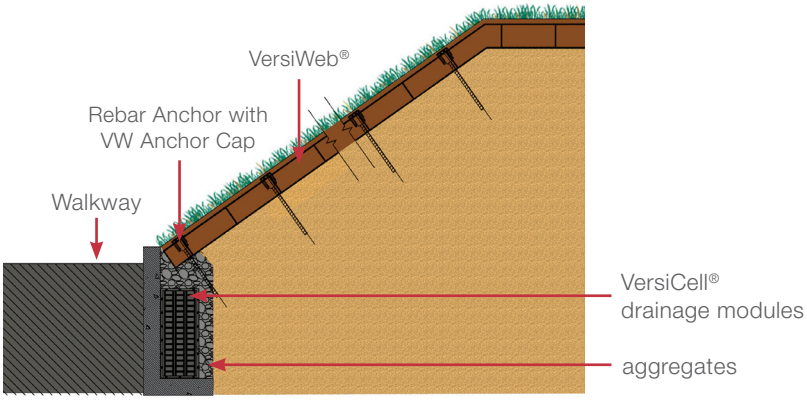
Downtown Line MRT Depot, Singapore

Capella Hotel, Singapore

Typical Installation Details

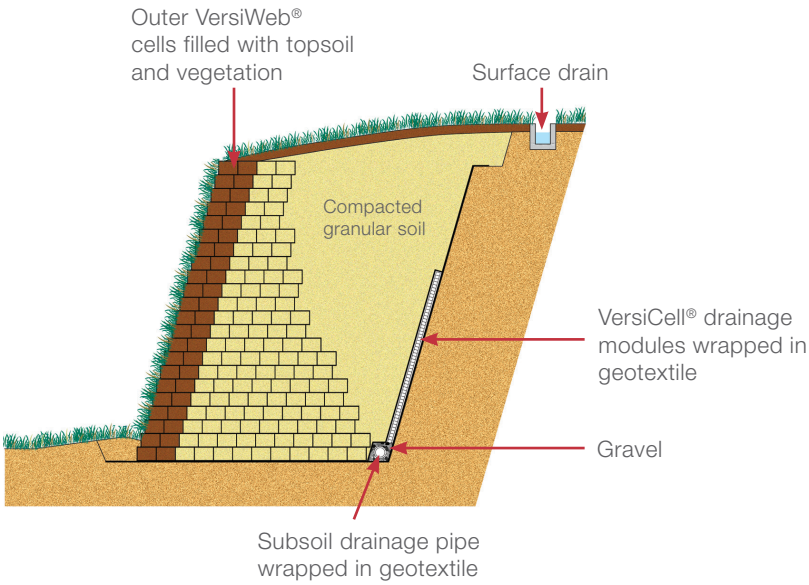
Erosion Control

VersiWeb® is anchored onto slopes using steel rebars with VW Anchor Caps. This system provides slope stabilisation by mitigating topsoil erosion through resisting sliding forces, complementing the overall erosion control efforts on slopes or channels.



Earth Retention

VersiWeb® can be installed in layers to form an integrated structural mass to resist lateral pressure and movement. It can be used to create embankments, barriers, gravity retaining walls and free-standing walls.



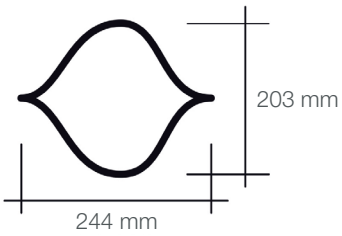
Private Residence, Singapore

Private Residence, Singapore

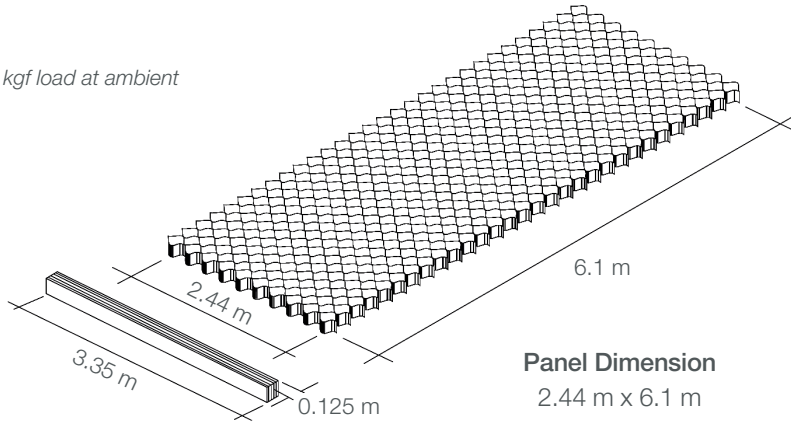
Technical Specifications

Material	HDPE		
Cell size	244 x 203 mm		
Panel size	6,100 x 2,440 mm		
Panel thickness	100 mm	150 mm	200 mm
Weight per panel	24.7 kg	37.0 kg	49.3 kg
Seam weld strength	1400 N	1820 N	2210 N
Tensile strength	18.5 MPa (longitudinal) 19.5 MPa (transverse)		
Long term seam hang strength*	>30 days		
Environmental stress crack resistance	>3,000 hours		
Service temperature	-20°C to 120°C		
Biological/ Chemical resistance	Unaffected by moulds and algae. Good resistance to alkali and bitumen		

**100 mm seam width supporting 72.5 kgf load at ambient temperature according to ASTM E41*



Cell Dimension



Panel Dimension
2.44 m x 6.1 m

Advantages

- Cost-effective long-lasting slope/channel stabilisation and protection
- Conforms to most terrain profiles
- Easily transported and handled on-site
- Quickly dismantled for re-use

Application

- Slope protection
- Embankments
- Inclined green roofs and walls

Elmich Pte Ltd

t +65 6356 2800
e info@elmich.com

Singapore • Australia • Malaysia
Switzerland • Germany • USA