



VersiWeb<sup>®</sup>
Lưới tròng cây trên triền dốc,
TRIỀN NÚI CHỐNG SẠT LỞ & CHỐNG LÚN





### Slope Stabiliser

A geosynthetic cellular confinement system that incorporates a matrix of ultrasonically bonded thermoplastic strips to form a strong, dimensionally stable and inert honeycombed structure. The system effectively controls erosion by limiting movement of infill within its individual cells. When filled with granular materials, a three dimensional erosion barrier and structural bridge is created to uniformly distribute weight-bearing loads.

### Lưới trồng cây trên triền dốc, chống sạt lở, chống lún.

VersiWeb là lưới địa tổng hợp bằng nhựa, được liên kết chắc chắn bởi các ô hình thoi 3 chiều (3D), có những lỗ nhỏ nằm ngang trên vách, cấu trúc như tổ ong. Khi trải lên triền dốc, triền núi, hoặc trên bề mặt có độ dốc cao và đổ đất lên trên, mỗi ô tổ ong sẽ giữ chặt một lượng đất nhất định và hạn chế khả năng sạt lở. Rể cây phát triển theo các chiều ngang và dọc sẽ đâm xuyên qua các lỗ ngang và dọc, bám chắc vào vỉ, tạo nên những liên kết chắc chắn nên hiện tượng sạt lở sẽ không còn.





#### Features & Benefits

- 1. Perforated cell walls
- 2. Collapsible cells
- 3. Lightweight and flexible
- 4. Easy transportation and on-site handling
- 5. Conforms to most terrain profiles
- 6. May be installed in layers or stacked
- 7. Distributes & withstands weight bearing loads
- 8. Prevents infill from being forced into substrate
- 9. Long-term stabilization and protection
- 10. Confines planting media

### **Applicable Areas**

- 1. Slope stabilization & protection
- 2. Earth retention
- 3. Load support
- 4. Channel & shoreline protection
- 5. Planting media containment

### Ưu điểm

- 1. Tường đục lỗ sẵn hình tổ ong.
- 2. Xếp gọn lại dễ dàng
- 3. Nhe và dẻo
- 4. Vận chuyển dễ dàng, lắp đặt bằng tay
- 5. Thích hợp với mọi địa hình, mọi bề mặt nghiêng
- 6. Có thể thi công thành từng lớp, hay từng cụm
- 7. Phân bố và tạo sự ốn định tải trọng bề mặt
- 8. Ngăn cản hiện tượng nén chặt đất, tạo áp lực bề mặt
- 9. Ôn định lâu dài và tăng khả năng bảo vệ
- 10.Giữ chặt lớp thảm thực vật phía trên

### Ứng dung

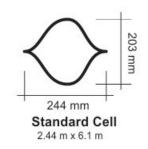
- 1. Bảo vệ và ổn định đất triền dốc
- 2. Bảo vê hành tinh xanh
- 3. Tăng tải trọng
- 4. Bảo vệ bờ kè, bờ sông, bờ suối...
- Trồng cây, phủ thảm thực vật lên trên

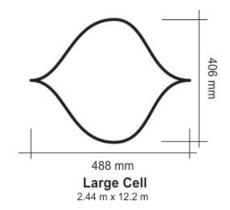




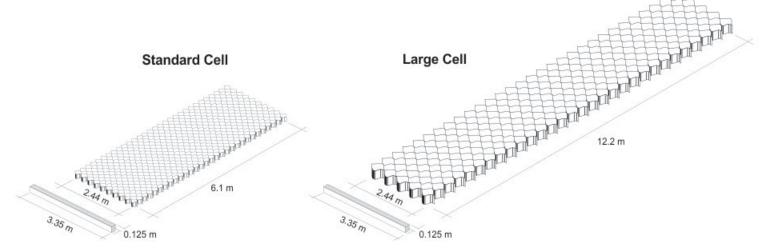
### **Specifications**

		Standard Cell	Large Cell
Cell Dimension:		203 mm x 244 mm	406 mm x 488 mm
Cell Heights:		50 mm	50 mm
		75 mm	75 mm
		100 mm	100 mm
		150 mm	150 mm
		200 mm	200 mm
Thickness:		1.2 mm	1.2 mm
Tensile Strength:	(Long.)	18.4 MPa	18.4 MPa
	(Trans.)	19.5 MPa	19.5 MPa
Seam Weld Strength:	50 mm	560 N	560 N
	75 mm	950 N	950 N
	100 mm	1400 N	1400 N
	150 mm	1820 N	1820 N
	200 mm	2210 N	2210 N
Size Per Panel:		approx. 15.0 m <sup>2</sup>	approx. 30.0 m <sup>2</sup>
		(2.44 m x 6.1 m)	(2.44 m x 12.2 m)
Weight Per Panel:	50 mm	12.3 kg	12.3 kg
	75 mm	18.5 kg	18.5 kg
	100 mm	24.7 kg	24.7 kg
	150 mm	37.0 kg	37.0 kg
	200 mm	49.3 kg	49.3 kg
Long Term Seam Hang Strength*		: >30 days	>30 days
<b>Environmental Stress</b>	Crack		
Resistance:		>3000 hours	>3000 hours
Biological/Chemical Resistance:		Unaffected by moulds & algae & good resistance to oils, acids, alkalis & bitumen	
Service Temperature:		20°C to 120°C	
		-2-1-07-2-0-0-00-00-00-00-00-00-00-00-00-00-00-	





<sup>\* 100</sup> mm seam width supporting 72.5 kgf load at ambient temperature according to ASTM E41



**Note:** The information provided in this brochure is based on current knowledge and experience and does not infer any legally binding assurance or warranty, expressed or implied. Intending purchasers should verify whether any changes to specifications or applications or otherwise have been made since this literature was issued. **VersiWeb** is manufactured using specified recycled plastics under detailed quality control standards and procedures. Factors including raw materials & manufacturing processes may impact slightly on performance. Whilst **VersiWeb** is designed for its intended use, the design calculations shall be the responsibility of the Specifier and/or User.





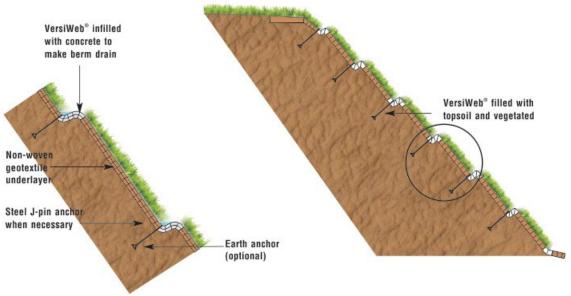
#### About VersiWeb

**VersiWeb** geosynthetic cellular confinement system is a matrix of lightweight, expandable and flexible thermoplastic strips that are ultrasonically bonded to form a strong, dimensionally stable and inert honeycomb structure. The thermoplastic strips do not have perforations to ensure optimum strength of each cell.

When filled with granular materials, the system creates a three dimensional erosion barrier and structural bridge that uniformly distributes weight-bearing loads. The cellular nature of **VersiWeb** enhances drainage and prevents build-up of hydrostatic pressure.

### **Applications**

- Slope protection
- Earth retention
- Load support
- Channel protection



### **Slope Protection**

**VersiWeb** effectively controls erosion as the cells prevent movement of the infill. The confined infill also acts as a counterweighton sloped areas and provides stability.

Infill materials recommended include:

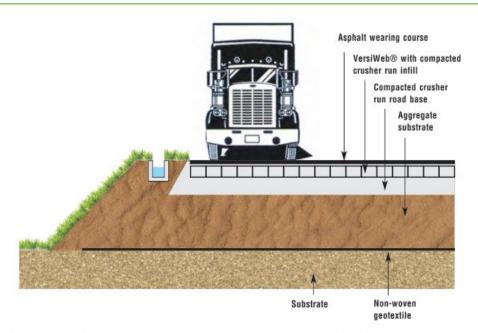
- top soil for established vegetation
- granular infill for steep non-vegetative slopes
- concrete for hard and durable situations











### **Load Support**

VersiWeb has application for use in driveways, maintenance roads, parking lots, cart paths, walkways, pipeline/ sewerage supports and in channel crossings. The cell structure uniformly distributes high weight bearing loads and prevents the infill from being forced into the substrate below resulting in deformations and potholes.



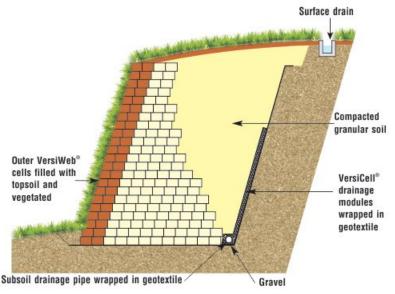


#### Earth Retention

VersiWeb can be used to retain infill in gravity retaining and free standing walls, embankments and barriers. The shear strength of the infill is enhanced by confining material within each cell. When installed in layers, VersiWeb forms an integrated structural mass, resisting lateral pressure and movement. VersiWeb is easily dismantled and may be subsequently re-used.

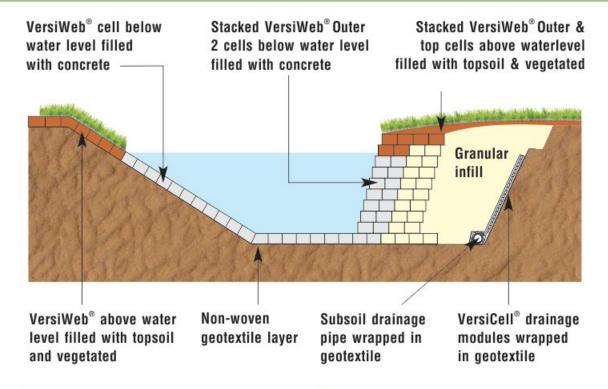
Infill materials recommended include:

- top soil for vegetation establishment
- granular material (gravel/sand)
- concrete









#### **Channel Protection**

VersiWeb® can be used for channel and shoreline protection and on scour aprons, boat ramps and spillways. VersiWeb® avoids the need to install costly load support structures.

Infill materials, subject to site conditions, include:

- Top soil for low to moderate and intermittent flow conditions
- Granular materials including gravel and concrete for channels subject to severe hydraulic and mechanical stresses.

### **Advantages**

- Provides cost effective, long-term slope and channel protection and stabilization
- Ease in transportation and on site handling due to collapsible cells
- Rapid and simple installation conforms to most terrain profiles
- Ultrasonic welding of cell joints ensures maximum strength
- Easily dismantled and subsequently re-used
- Withstands high weight bearing loads
- Resistant to biological attack and a wide range of soil- borne chemicals











1

Soil slope, hill-side or mountain cut

Triền dốc, triền núi



2

Install Gerotextile (option)
& VersiWeb on to soil slope,
hill-side or mountain cut

Lót vải địa (tùy chọn) và lắp VersiWeb lên triền dốc hoặc triền núi.



3

Continue down the slope with soil

Tiếp tục đổ đất lên triền dốc



4

Planting grass or trees.

Hoàn thiện trồng cỏ hoặc cây trên triền dốc





Capella @ Sentosa Singapore













MRT Downtown
Line Train Depot
Singapore





Private residence

@ Bishopsgate

Singapore













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