VersiWeb®

Cellular Confinement System

Enhancing Our Environment

VersiWeb® enhances our environment by stabilizing and protecting infill from wind, water and weight bearing loads.

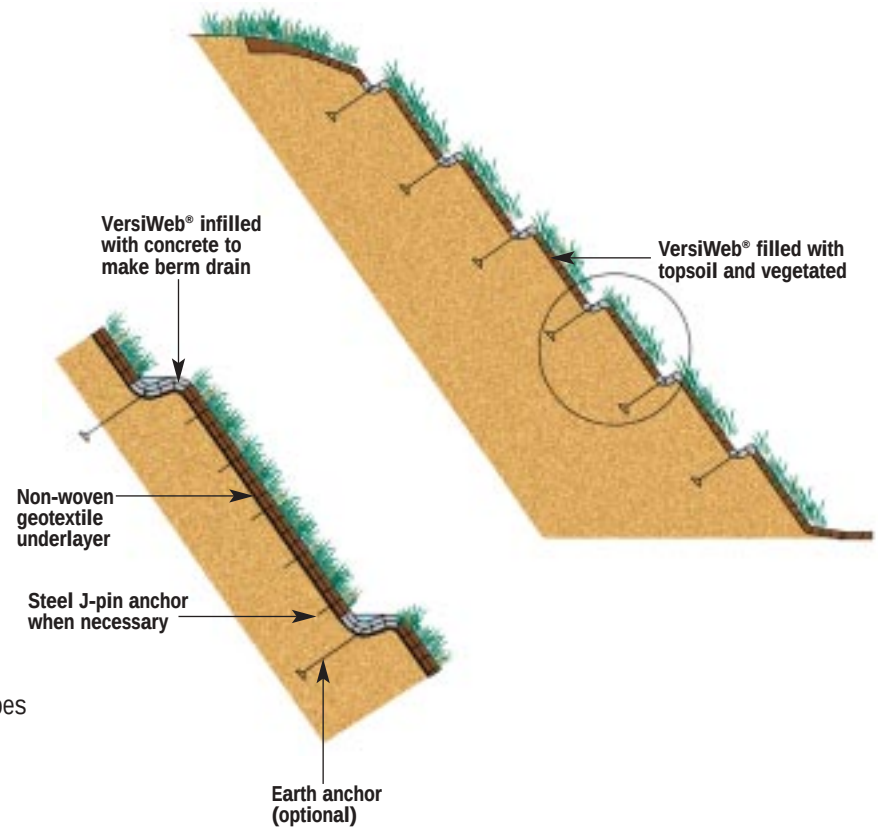
VersiWeb®

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 grannular 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 protect movement of the infill. The confined infill also acts as a counterweight on sloped areas and provides stability.

Infill materials recommended include:

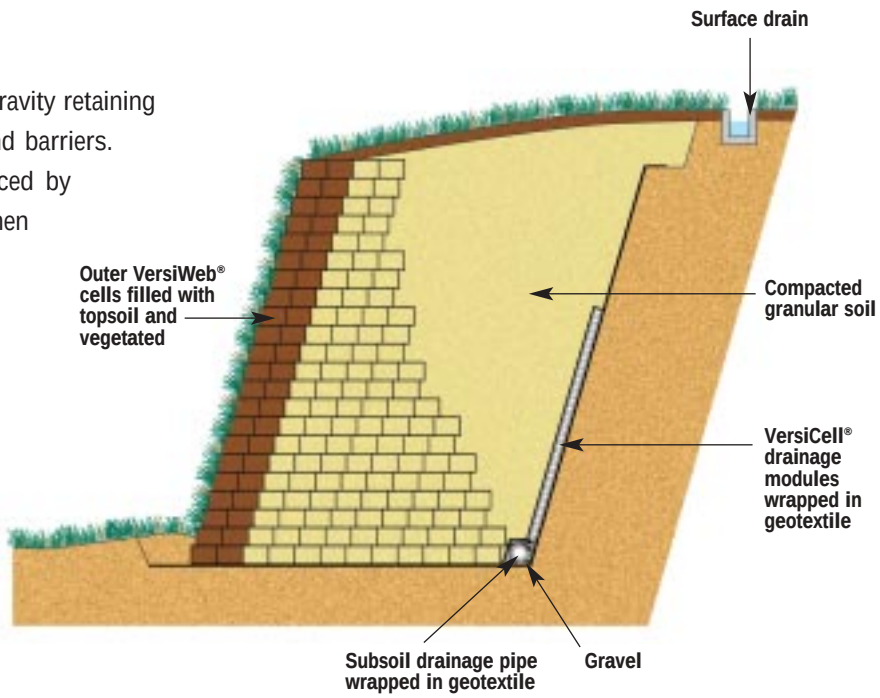
- top soil for established vegetation
- granular infill for steep non-vegetative slopes
- concrete for hard and durable situations

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.

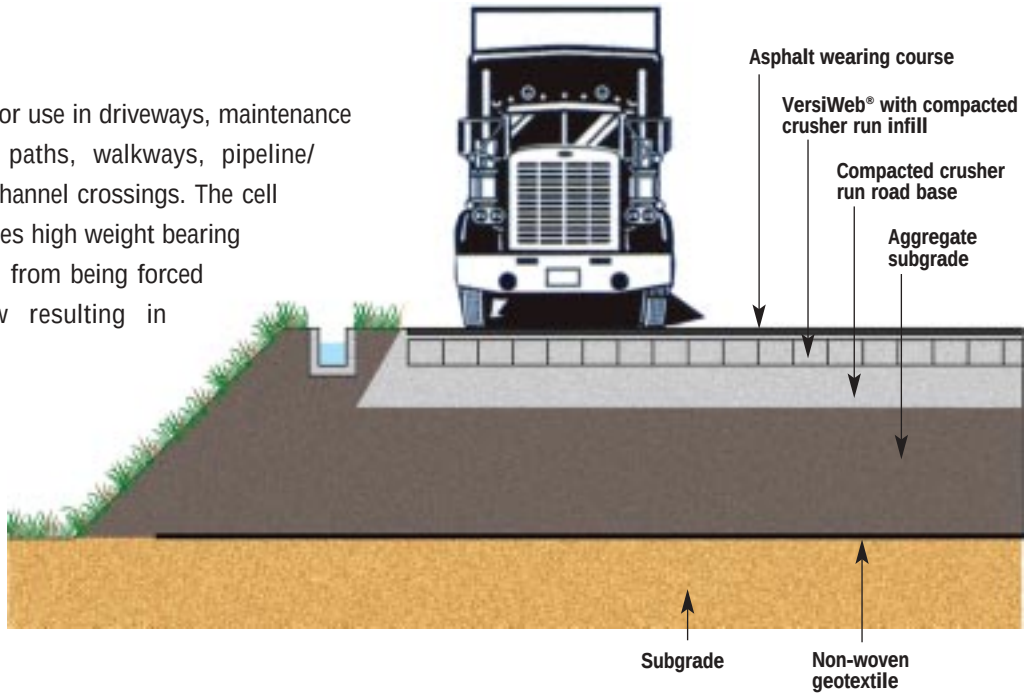
Infill materials recommended include:

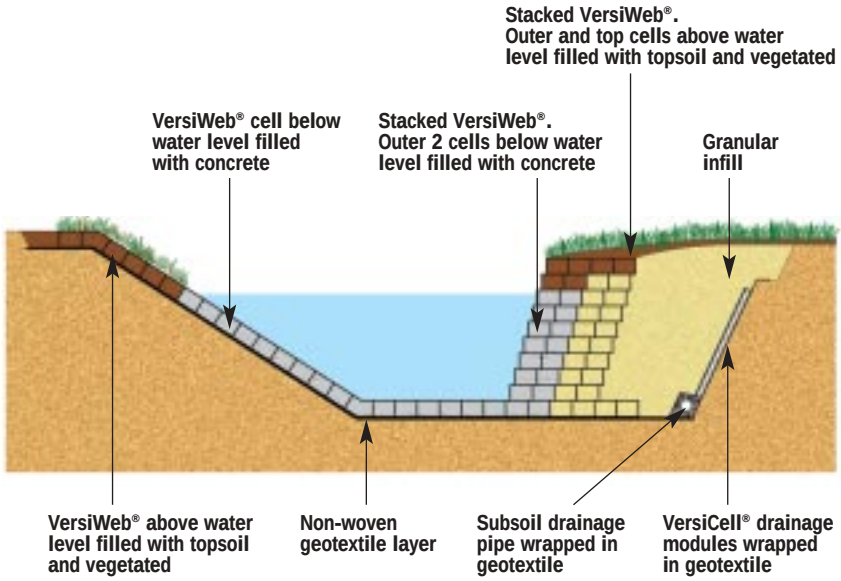
- top soil for vegetation establishment
- granular material (sand/gravel/sand)
- concrete



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.





Channel Protection

VersiWeb® can be used for channel and shoreline protection and on scour aprons, boat ramps and spillways. Improved flow rates, reduced rilling, the prevention of increased hydrostatic pressure, piping and undermining result. **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.

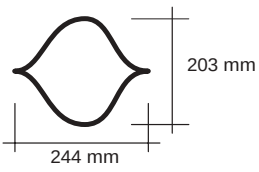
Advantages

- 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 higher weight bearing loads
- Resistant to biological attack and a wide range of solid borne chemicals

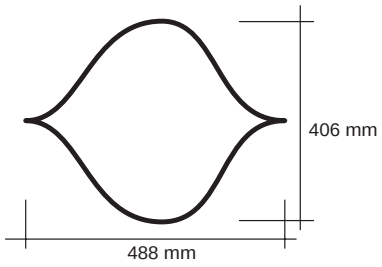
Specifications

		Standard Cell	Large Cell
Cell Dimension:		203 mm x 244 mm	406 mm x 488 mm
Cell Heights:		50 mm 75 mm 100 mm 150 mm 200 mm	50 mm 75 mm 100 mm 150 mm 200 mm
Thickness:		1.2 mm	1.2 mm
Tensile Strength:	(Long.) (Trans.)	18.4 MPa 19.5 MPa	18.4 MPa 19.5 MPa
Seam Weld Strength:	50 mm 75 mm 100 mm 150 mm 200 mm	560 N 950 N 1400 N 1820 N 2210 N	560 N 950 N 1400 N 1820 N 2210 N
Size Per Panel:		approx. 15.0 m^2 (2.44 m x 6.1 m)	approx. 30.0 m^2 (2.44 m x 12.2 m)
Weight Per Panel:	50 mm 75 mm 100 mm 150 mm 200 mm	12.3 kg 18.5 kg 24.7 kg 37.0 kg 49.3 kg	12.3 kg 18.5 kg 24.7 kg 37.0 kg 49.3 kg
Long Term Seam Hang Strength*:		>30 days	>30 days
Environmental Stress Crack Resistance		>2000 hours	>2000 hours
Biological/Chemical Resistance:		Unaffected by moulds and algae and good resistance to oils, acids, alkalis and bitumen	
Service Temperature:		-30°C to 120°C	-30°C to 120°C

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

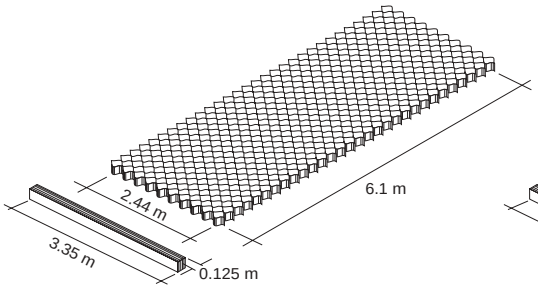


Standard Cell
2.44 m x 6.1 m

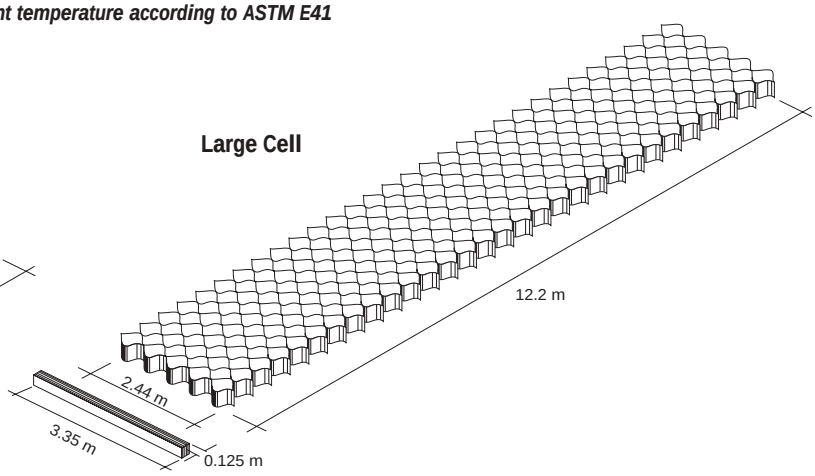


Large Cell
2.44 m x 12.2 m

Standard Cell



Large Cell



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. Whilst **VersiWeb®** is designed for its intended use, the design calculations shall be the responsibility of the Specifier and/or User.

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