

Creating Cities Where Urban Meets Nature

VersiWeb® Cellular Confinement System

Our Innovation Your Solution

VersiWeb[®] provides effective erosion control and slope stability by preventing movement of infill material and by forming an integrated structural mass that resist lateral pressure and movement. It uniformly distributes weightbearing loads and provides cost effective long-term erosion control and slope and channel protection and stabilisation.



ecospecifier global

VersiWeb[®]

VersiWeb[®] offers architects and developers a comprehensive solution for long-term slope and channel protection and stabilization.

About VersiWeb®

VersiWeb[®] is a cellular confinement system comprising a matrix of expandable and flexible thermoplastic strips that are ultrasonically bonded to form a strong, dimensionally stable and inert honeycombed network of cells.

When filled with top-soil, granular gravel/sand material or concrete, it creates a three dimensional erosion barrier and structural bridge that uniformly distributes weight-bearing loads, enhances drainage and prevents build-up of hydrostatic pressure.

VersiWeb[®] effectively controls erosion 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[®] forms an integrated structural mass that resists lateral pressure and movement. It uniformly distributes weightbearing loads thereby preventing infill from being forced into the substrate below resulting in deformation and potholes.



Earth Retention

VersiWeb[®] can be used to retain infill in gravity retaining and free standing walls, embankments and barriers. By confining infill material within each cell, structural and shear strength is enhanced. 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 establishing vegetation
- granular material (gravel/sand)
- concrete



Enhancing the Urban Experience



Non-woven geotextile





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

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

Application

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

Technical Specification

| | | Standard Cell | Large Cell | |
|-----------------------|-----------|---------------------------|---------------------------------------|--|
| Cell Dimension | | 203mm x 244mm | 406mm x 488mm | |
| Cell Heights | | 50mm | 50mm | |
| | | 75mm | 75mm | |
| | | 100mm | 100mm | |
| | | 150mm | 150mm | |
| | | 200mm | 200mm | |
| Thickness | | 1.2mm | 1.2mm | |
| Tensile Strength | (Long.) | 18.4MPa | 18.4MPa | |
| | (Trans.) | 19.5MPa | 19.5MPa | |
| Seam Weld Strength | (50mm) | 560N | 560N | |
| | (75mm) | 950N | 950N | |
| | (100m) | 1400N | 1400N | |
| | (150mm) | 1820N | 1820N | |
| | (200mm) | 2210N | 2210N | |
| Size Per Panel | | $\approx 15.0 \text{m}^2$ | $\approx 30.0m^2$ | |
| Weight Per Panel | (50mm) | 12.3kg | 12.3kg | |
| | (75mm) | 18.5kg | 18.5kg | |
| | (100m) | 24.7kg | 24.7kg | |
| | (150mm) | 37.0kg | 37.0kg | |
| | (200mm) | 49.3kg | 49.3kg | |
| Long Term Seam | | | | |
| Hang Strength* | | >30 days | >30 days | |
| Environmental Stress | S | | | |
| Crack Resistance | | >3000 hours | >3000 hours | |
| Service Temperature | | -20 °C to 120 °C | -20 °C to 120 °C | |
| Biological / Chemical | | Unaffected by moulds an | Unaffected by moulds and algae | |
| Resistance | | Good resistance to alkali | Good resistance to alkali and bitumen | |



Large Cell 2.44m x 12.2m

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



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