



# Greenfix

Soil Stabilisation and  
Erosion Control Specialists

## Are you considering using a Geocell other than GEOWEB®?

If so, how will you join the panels together? The weakest point of any geocell system is the connection between adjacent panels. Most geocell suppliers recommend stapling with hand or pneumatic staplers (1 staple per 25 mm depth). Both of these stapling methods have drawbacks that negatively affect installation and design strength:

### Pneumatic Stapling



- requires an industrial stapler such as a Bostich heavy duty pneumatic staple gun.
- requires two workers per panel connection, an inefficient use of a crew's time.
- requires a generator and fuel, compressed air hoses, pneumatic staple gun and has chronic problems with misfires and jamming, especially at muddy or sandy sites.

### Hand Stapling



- is a cheaper option than pneumatic stapling for small projects, but is nearly impossible to staple through overlapping adjoining panels.
- the jaws of a hand stapler are typically only 65 mm making it impossible to staple into deeper (150-200 mm) geocells.
- staples, also unfriendly to the environment.

**GEOWEB® is the ONLY geocell with the most efficient and strongest connection device: ATRA® Keys.**

ATRA® keys connect Geoweb® panels quickly through slots designed in Geoweb® sections for this purpose.

#### ATRA® Keys Benefits:

- 3-4 times stronger than stapling: 1kN tensile strength per connection between the Geoweb® sections.
- Substantially quicker to install, and installation is not impacted by soil type or weather.
- Easy for one worker to use: Insert ATRA® key through slot and turn 90 degrees to lock.
- Permanent: Polymer material will not degrade like staples, delivering long-term performance.
- Beneficial for both small and large projects.



# Look what can happen when you don't choose GEOWEB® and ATRA® Key

Below are examples of a failed geocells (non-GEOWEB®-products)  
due to poor staple strength and poor installation



## Motorway E1 – North of Lisbon/Portugal

Connection method: staples – 2 years after installation  
Geocells used made of PE-HD



## River Embankment – San Timoteo, California/USA

Connection method: staples – 12 months after installation  
Geocells used made of PE-HD



## Motorway E70 – Croatia

Connection method: staples – 3 year after installation  
Geocells used made of geotextile vleece



## Access Road – Atlanta/USA

Connection method: staples – 2 years after installation  
Geocells used made of PE-HD

## GEOWEB® and ATRA® Key installations



## Geoweb® with Atra Key®



## Geoweb® Installation Ripon/UK

**Greenfix**  
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