

# Armater®

EROSION CONTROL



Versatile surface layer control

**COLBOND**

# Armater

## Application

Armater is a versatile, dependable and well-proven geocell that delivers effective erosion control. Designed primarily for stabilizing thick layers of soil on slopes, it has a unique honeycomb structure made from a highly permeable and tough geotextile that is easy to install and secure.

The structure forms mini-cascades which reduce surface water run-off by decreasing flow velocity, and prevents the formation of erosion channels. The Armater panel is usually filled with topsoil which allows seeding and growth of vegetation on surfaces that could otherwise not sustain grass or plants (eg. steep or rocky slopes).

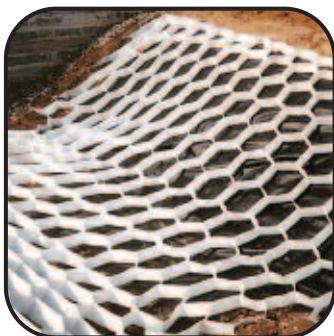
Armater is also suitable to stabilize gravel berms or to serve as formwork for concrete river bed construction.

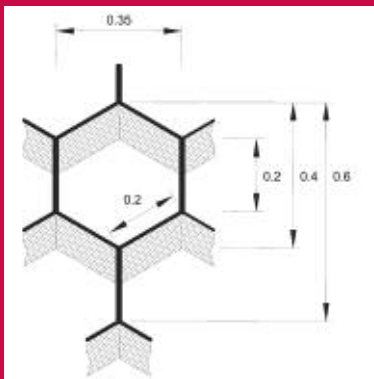
## Product

- Honeycomb structure/geocell created by bonding alternate sections of geotextile fabric strips
- Entire product is permeable
- Product design can be adapted to meet the demands of special projects

## Functions

- Ensures the stability of the top layer and prevents surface slips
- Minimizes erosion of soil by wind and water immediately after installation (even before seeding and vegetation growth on the slope; plant growth not essential, but enhances the stabilization of the top layer)
- Management of excess rainwater





**Standard product type  
RC20-20/10**

**Specifications:**

- Cell dimensions :  
panel length 0.2 m, height 0.1 m
- Panel coverage when laid:  
approx. 10 m x 8 m
- Supplied in easy to handle packages  
of 2.5 m x 0.6 m x 0.10 m, weight less  
than 30 kg

**Product Benefits**

**Versatile**

- Can be filled with all types of material such as fertile topsoil, coarse or poor soil, sand, flint or gravel (selection depends on specific circumstances and the project goal)
- Flexible honeycomb structure follows surface contours without buckling or warping

**Easy to handle**

- Lightweight for easy site transport
- Quick and easy to unpack and deploy on slope
- Material is easy to cut - Armater can be adapted to the landscape of slopes (laying around rocks, subsequent tree planting etc.) in all weather conditions
- Fully stable during filling process

**Durable**

- Rot-resistant with high tensile strength and tear resistance for durable and permanent stabilization of surfaces
- Good drainage
- Permeable fabric ensures even drainage, avoiding concentration of water flow and the risk of pooling in cells (significant advantage over cells made from perforated impermeable sheets where flow is highly localized)

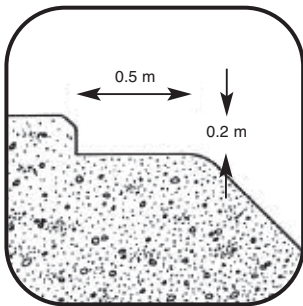


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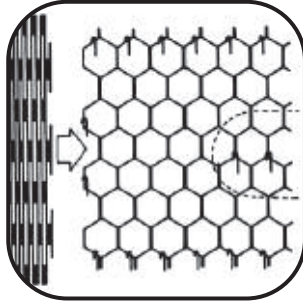
## Installation

### Slope preparation

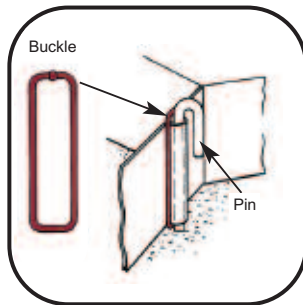
Any gullies or discontinuities must be filled and well compacted before the surface is generally leveled and compacted. An anchor shelf 0.2 m deep, 0.5 m wide should be excavated along the top of the slope.



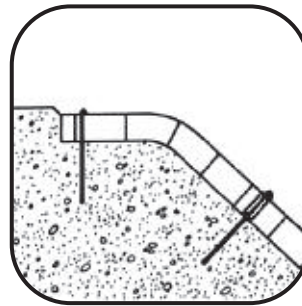
### Installing Armater



The panel of Armater is laid at the top of the slope and pulled out evenly over the slope. It is anchored at the top with steel pins and at the sides with pins and buckles. The pins are typically 8 mm dia and 400 mm long with a retaining hook. They must



be sized to provide adequate anchorage under site conditions. Pin layout depends on slope angle (our design guide can be found at [www.colbond-geosynthetics.com](http://www.colbond-geosynthetics.com)). The buckles are supplied by Colbond in packs of 300.



The panel is tensioned manually and fixed temporarily at the toe to prevent uneven deformation during filling. The buckles connecting adjacent panels should be placed where the cell walls are double layer. They transfer loads induced in the respective cells further down the slope.

### Filling

The filling may be placed mechanically or manually. **Avoid driving vehicles on unfilled Armater.** The anchorage shelf at the top should be filled first. We recommend filling the panel in two stages, first placing material in a line of cells diagonally across the slope and then filling the remaining cells. Alternatively, Armater can be filled from the top working in horizontal sections. The cells should be filled evenly and leveled off.



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