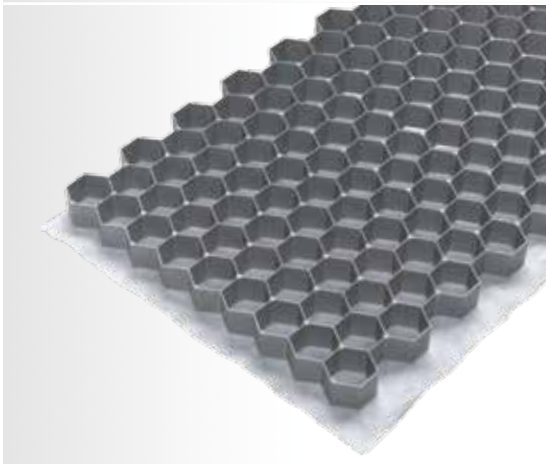
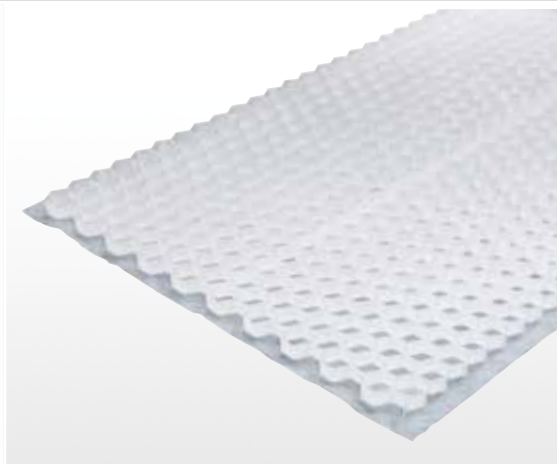
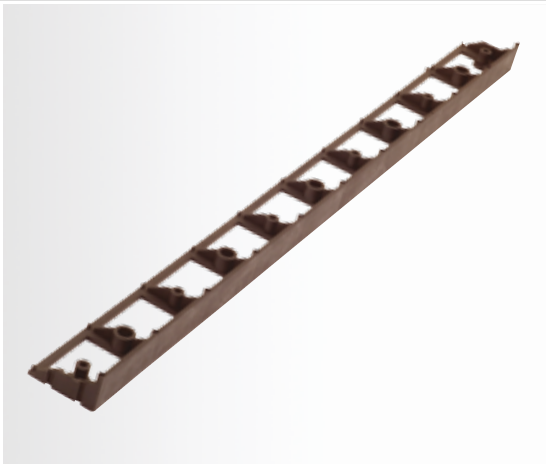


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ACO Water Management: Building + Landscape

ACO GroundGuard
ACO GravelGuard
ACO BorderGuard



Smart surfacing and easy edging

ACO Landscaping Systems



Introduction to the ACO Group

Throughout the world ACO branded drainage and surface water management systems are recognised for their innovative design, high quality manufacture, environmental excellence and industry leading performance.

Today the ACO Group has a research and production base that reaches across four continents. This unmatched resource pioneers the development of solutions that are tailored to individual applications, meeting the need for high performance, sustainable products that deliver optimum value throughout their operational life.

ACO Technologies plc

ACO operates as ACO Technologies plc in the United Kingdom. Founded over 30 years ago, the company has grown quickly on a reputation for design innovation and customer service.

There are now 2 core divisions, ACO Water Management and ACO Building Drainage, that serve every sector of the construction industry, providing solutions for applications as diverse as rail, highways, airports, landscaping, retail, distribution centres and environmentally sensitive projects.



To help architects, designers and contractors meet the legal requirements that now tightly control the way surface water is managed, ACO has created its unique 'Surface Water Management Cycle' – Collect, Clean, Hold, Release – the four core processes required for the complete and sustainable management of surface water drainage.



Introduction to ACO GroundGuard

ACO GroundGuard is manufactured from 100% recycled polyethylene and provides a lightweight ground reinforcement system for grass or gravel stabilisation.

This type of surface helps to reduce the risks of potholes, rutting or grass damage.

The system is exceptionally lightweight and strong, making it easy and quick to install, and suitable for a wide range of applications including paths, drives, parking areas and access routes.

ACO GroundGuard has been tested and certified to a loading of 250 tonnes per square metre.

In addition, ACO GroundGuard offers unimpeded flow to surface water, reducing the rate of run-off and potentially saving cost on unnecessary drainage installation.



Key features and benefits

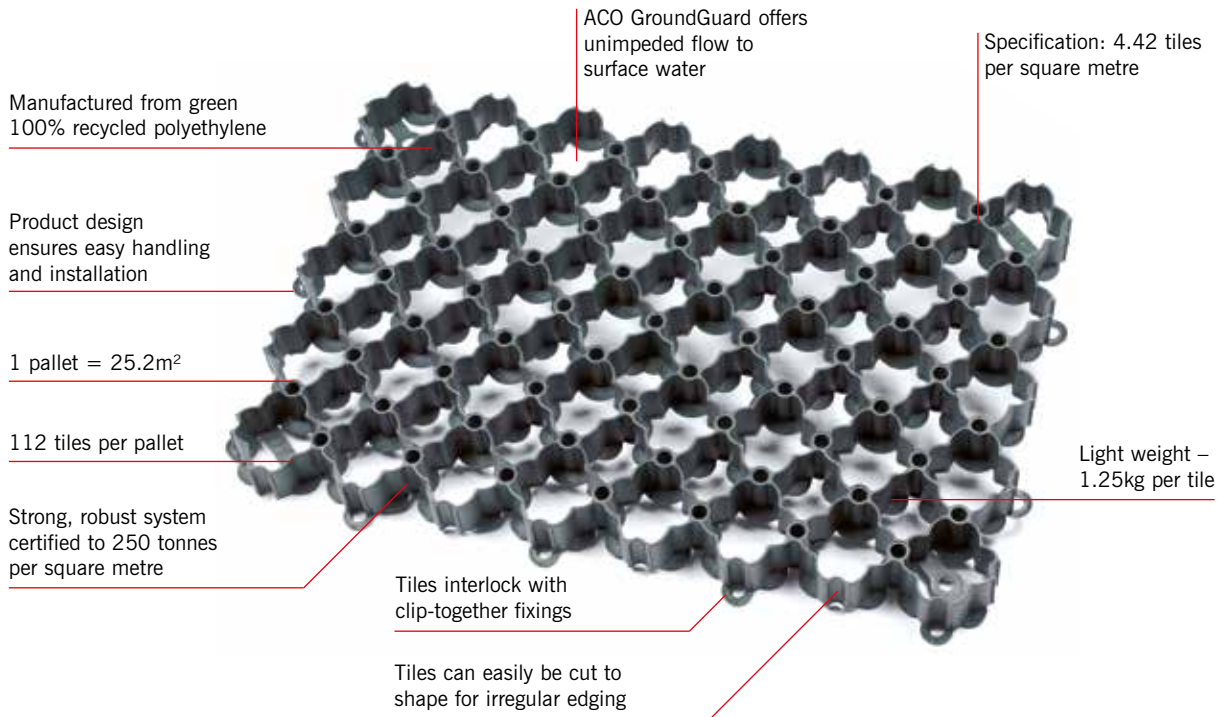
- ▶ Ideal for stabilising grass or gravel
- ▶ Eliminates risk of potholes, rutting or grass damage
- ▶ Quick and easy to install
- ▶ Compliant with Building Regulations Part M and Section 4 (Scotland)
- ▶ Suitable for gradients up to 5° when pegged

Suitable applications

- ▶ Domestic drives
- ▶ Paths
- ▶ Driveway & building access
- ▶ Private and public parking areas
- ▶ Access routes
- ▶ Caravan parks



ACO GroundGuard overview



ACO GROUNDGUARD ACCESSORIES

White parking bay markers

Push fit into GroundGuard cells to mark out spaces for parking



ACO 180mm steel nail



ACO GroundGuard

Product code	Description	Length mm	Width mm	Depth mm	Weight kg
81070	ACO GroundGuard tile	585	385	38	1.25
81072	White parking bay marker	-	-	38	0.1
81073	ACO 180mm steel nails (Bag 50)	180	6	-	1.3

ACO GroundGuard installation guide

This guide gives general advice on installing ACO GroundGuard. Independent advice should be sought regarding installation in specific locations.



Depending on soil conditions and intended use of the area to be stabilised, dig out the existing base e.g. typically for light vehicle traffic / parking areas, 200-300mm will suffice. With heavy wheel loads or a clay soil, 400mm may be necessary. **NB. Seek independent engineering advice to determine required sub-base thickness and what drainage may be needed.**



If using concrete edging pieces, install them next. If using ACO BorderGuard, install these between steps 4 and 5.



Compact the sub-base using a plate compactor. Fill the excavated area with free draining gravel or crushed stone to 100mm (grass) or 80mm (gravel) below the finished level. Tamp down with a roller or plate compactor.



Level the area with a layer of fine aggregate or for grass sieve sand/soil* mix. Level using a rail or wooden batten and compact as shown in the diagram below.



If using ACO BorderGuard to edge the area, install it at this stage. Install ACO GroundGuard tiles along the length of the area. Then assemble ACO GroundGuard laterally. Interlock the fastening clips. For best performance the tiles should be laid in a staggered pattern rather than a grid pattern. Please refer to the diagram below.



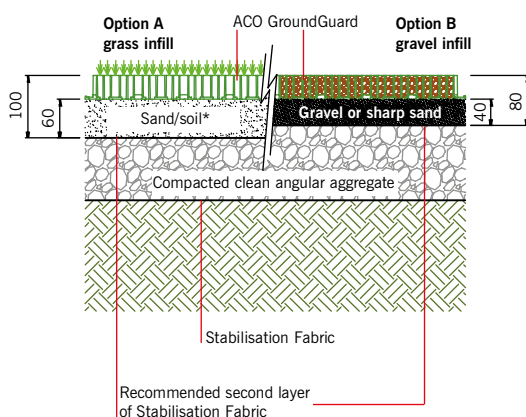
If using ACO GroundGuard nails, peg every other tile using two nails per tile through the holes at the corner. ACO GroundGuard may be used on slopes up to a maximum of 5°: in this case every tile should be pegged in the way described previously.

Fill in the ACO GroundGuard tiles with the chosen finish. For highly trafficked areas we recommend using a lawn seed suitable for parking use, typically a mix of ryegrass and fescue as recommended locally. If you wish, gravel can be used as fill instead. 6-14mm gravel is recommended.

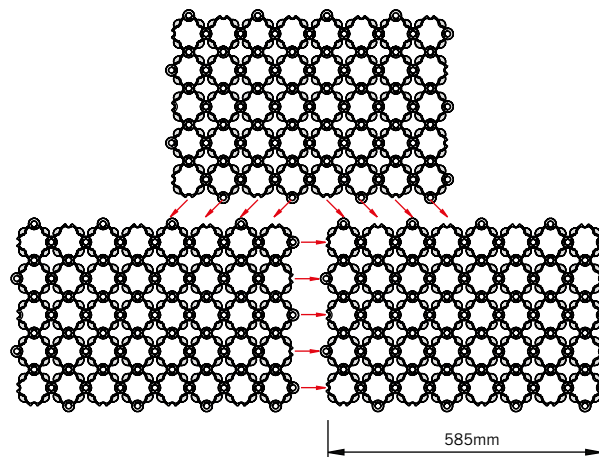
ACO GroundGuard nails

If the tiles need pegging, please contact the ACO Water Management Design Services Team for further information.

ACO GroundGuard installation incorporating Stabilisation Fabric.



ACO GroundGuard correct installation pattern



This guide gives general advice on installing ACO GroundGuard. Independent advice should be sought regarding installation in specific locations.

*Typically a 70/30 ratio



Introduction to ACO GravelGuard

ACO GravelGuard is a lightweight ground reinforcement system for gravel stabilisation, helping to reduce the risk of potholes.

The incorporated Dupont™ Typar® geo-textile helps to reduce weed growth and speed up installation.

ACO GravelGuard is manufactured from polypropylene and is suitable for driveway, paths and shed base applications.

Correctly installed, ACO GravelGuard is suitable for loads up to 40 tonnes per square metre (unfilled), more than enough for its applications.

In addition, ACO GravelGuard offers unimpeded flow to surface water, reducing the rate of run-off and potentially saving cost on unnecessary drainage installation.



6



Key features and benefits

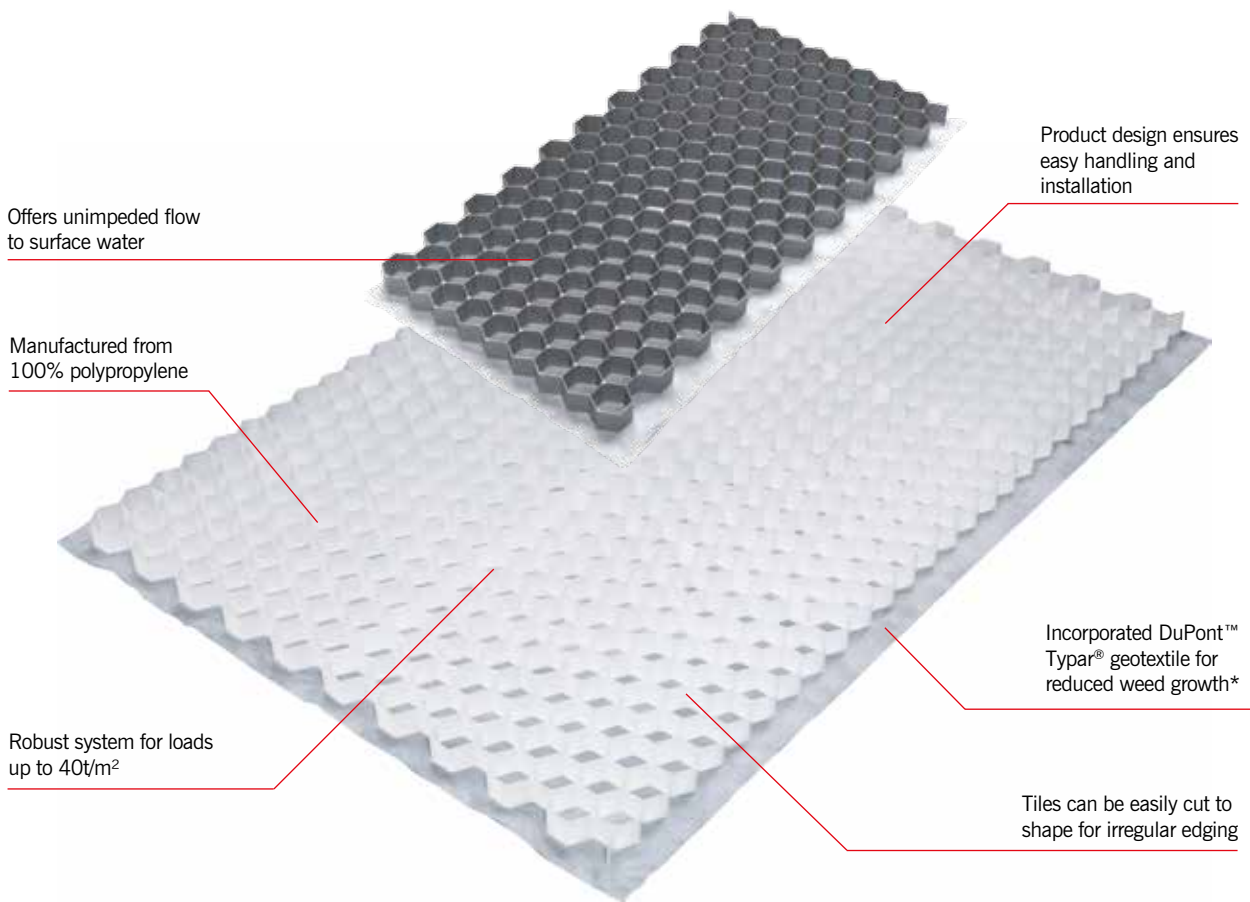
- ▶ Lightweight ground reinforcement system for gravel stabilisation
- ▶ Eliminates risk of potholes
- ▶ Incorporated Dupont™ Typar® geo-textile reduces weed growth and speeds up installation

- ▶ Quick and easy to install
- ▶ Robust system for loads up to 40t/m² (unfilled).
- ▶ Manufactured from 100% polypropylene

Suitable applications

- ▶ Driveways
- ▶ Paths
- ▶ Shed Bases

ACO GravelGuard overview



ACO GravelGuard

Product code	Description	Length mm	Width mm	Depth mm	Weight kg
281074	GravelGuard tile – PRO	1520	1180	32	4
281076	GravelGuard tile – DIY	764	390	32	0.5

* 281074 GravelGuard – PRO geotextile is 45g/m² and 281076 GravelGuard DIY geotextile is 30g/m².

Note: One pallet of GravelGuard – PRO covers per 28.7m² and one pallet of GravelGuard –DIY covers per 29.5m².

ACO GravelGuard installation guide

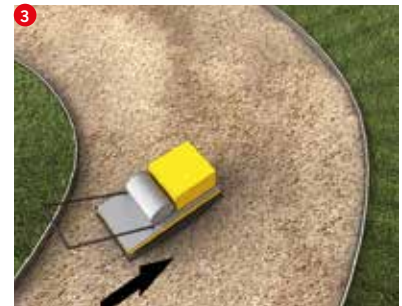
This guide gives general advice on installing ACO GravelGuard. Independent advice should be sought regarding installation in specific locations.



Depending on the soil conditions and intended use of the area to be stabilised, dig out the existing base. Typically, for driveways, 260-360mm. **Note: Seek independent engineering advice to determine the required sub-base thickness and what drainage may be needed.**



If using concrete edging install this next.



Compact the sub-base using a plate compactor. Fill the excavated area with free draining gravel or crushed stone to 110mm below the finished level. Tamp down with a roller or plate compactor.



Level the area with a layer of fine sand to 60mm depth. Use a rail or wooden batten and compact.



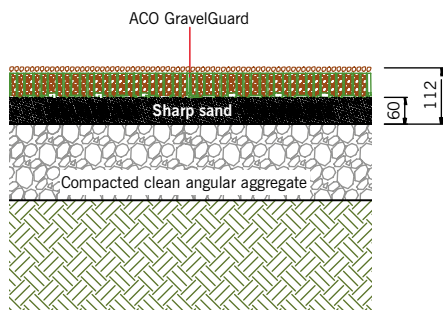
Install the ACO GravelGuard tiles along the length of the area. Install the tiles ensuring that the geo-membrane overlaps each other. For best performance the tiles should be laid in a staggered pattern rather than a grid pattern.



Fill in the GravelGuard tiles with 3-16mm gravel and compact. Once compacted add a further 15-20mm layer of gravel, finally rake the gravel to distribute evenly.

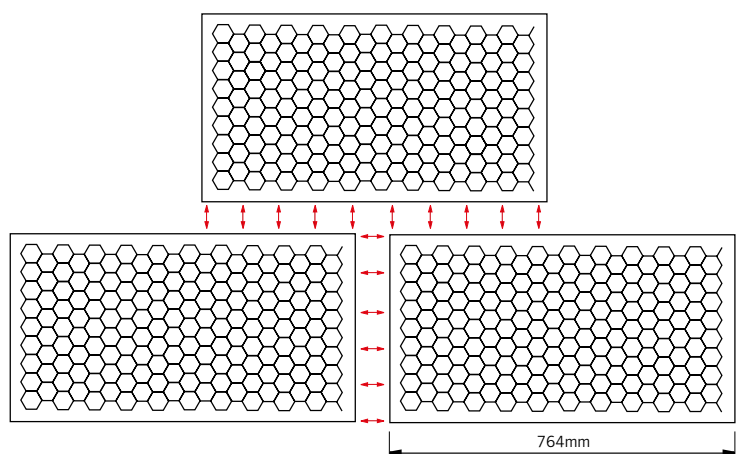


ACO GravelGuard installation



This guide gives general advice on installing ACO GravelGuard. Independent advice should be sought regarding installation in specific locations.

ACO GravelGuard correct installation pattern



Introduction to ACO BorderGuard

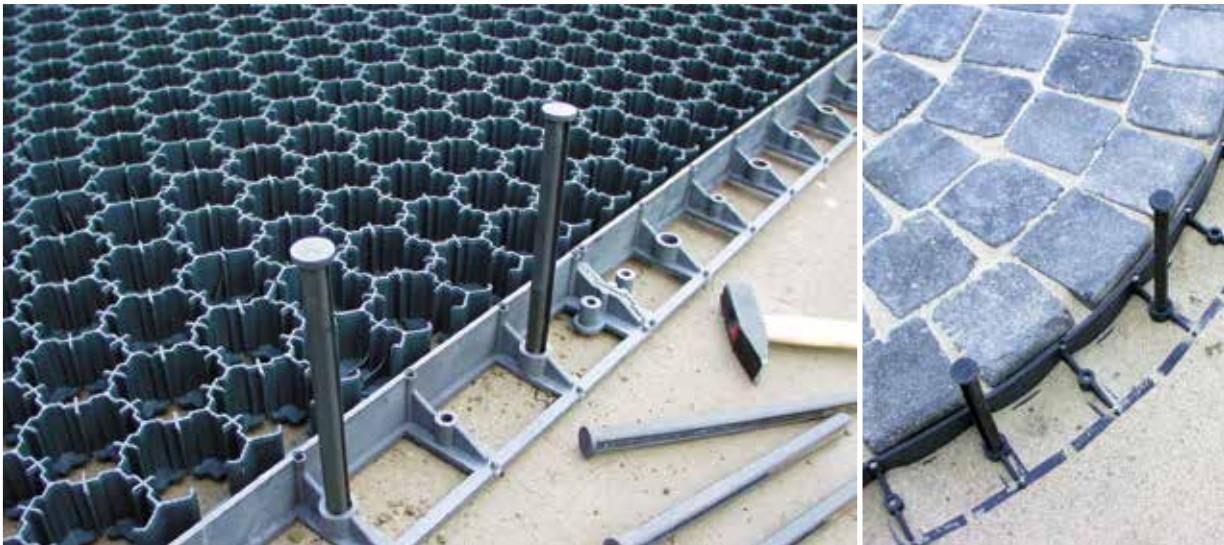
Whether you're edging your patio, garden path, or an ACO GroundGuard-reinforced parking area, ACO BorderGuard gives you a perfect, aesthetically pleasing finish. ACO BorderGuard prevents your slabs and block pavements from moving due to frost, vehicle or pedestrian movement.

Manufactured from 100% recycled materials, ACO BorderGuard is light and easy to work with, offering rapid and simple installation.

Once installed, the slim vertical edge is virtually invisible as it is hidden by soil or lawn. So you can use ACO BorderGuard with any choice of ground covering, whether it's lawn, flowerbed, or bark chips.

Thanks to its flexibility, ACO BorderGuard can be used for straight lines, curves or even 90-degree corners.

Installation is far faster than with concrete haunching and, unlike traditional methods, allows you to grow grass or bedding plants right to the edge of your paving, making the most of your garden and eliminating unsightly concrete.



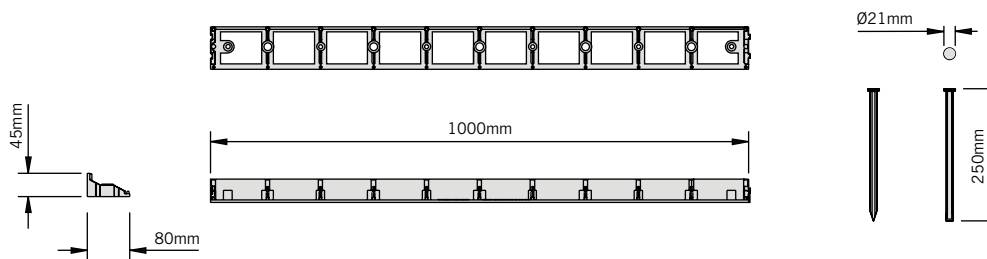
Why use ACO BorderGuard?

- ▶ Simple, quick installation
- ▶ 100% recycled
- ▶ Professional, unobtrusive finish
- ▶ Light weight (less than 400 grams per metre)
- ▶ Easily cut to size
- ▶ Easily edges corners and curves
- ▶ Compatible with paving slabs, block paving and ACO GroundGuard grass reinforcement
- ▶ Can be clipped together & installed in runs longer than 4m

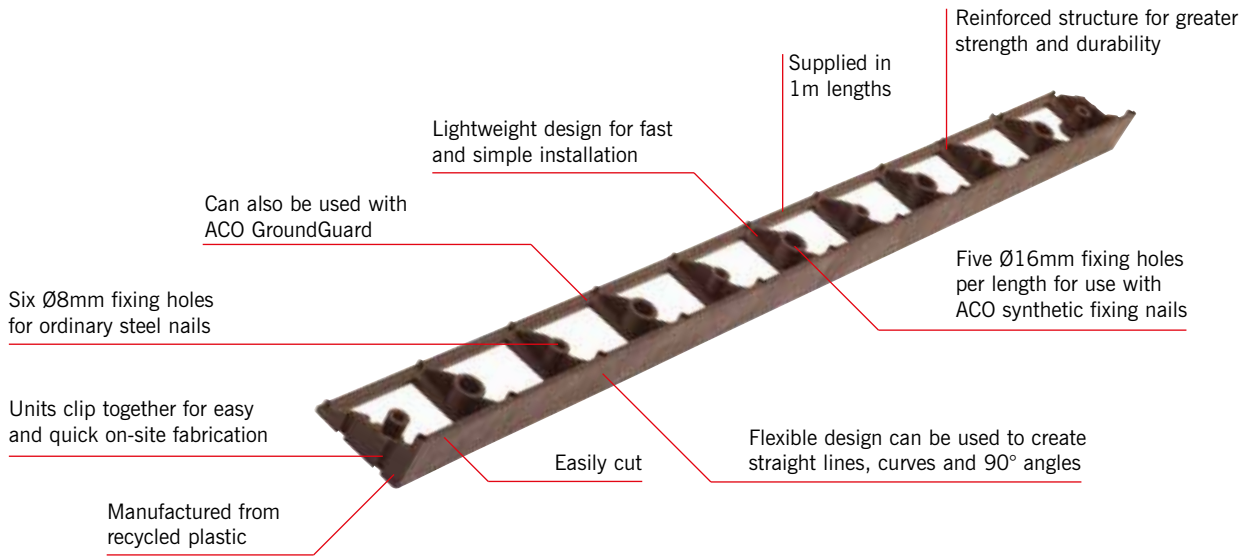
ACO BorderGuard

Product code	Description	Length mm	Width mm	Depth mm	Weight kg
81100	BorderGuard unit	1000	80	45	0.4
81110	Fixing nails	250	14	250	0.1
81073	ACO 180mm steel nails (Bag 50)	180	6	180	1.3

Note: 3-5 nails are required per metre of ACO BorderGuard depending on ground conditions.



ACO BorderGuard overview



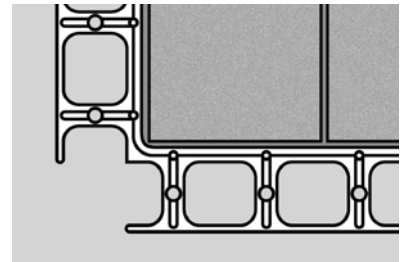
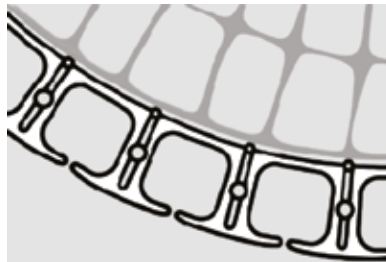
ACO BorderGuard installation guide

ACO BorderGuard should be laid on the same bed of sharp sand or fine gravel as the paviours.

For light or ordinary soils, ACO synthetic nails should be used at a rate of 3- 5 nails per metre depending on ground conditions.

For hard, heavy soils or compacted sub-base, ACO recommends ACO 180mm nails available in bags of 50. However under certain circumstances, (eg. heavy or hard soils) it may be possible to use standard 150mm round headed steel nails available from builders merchants.

The pictures below show stages of a typical ACO BorderGuard installation.



ACO Technologies plc

- ACO Water Management
Civils + Infrastructure
Building + Landscape
- ACO Building Drainage
- ACO Sport
- ACO Wildlife

ACO Water Management: Building + Landscape

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The ACO Group: A strong family you can depend on.

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