

Pennine FirmGround 45

Easy to handle, quick to install

Manufactured from recycled plastic

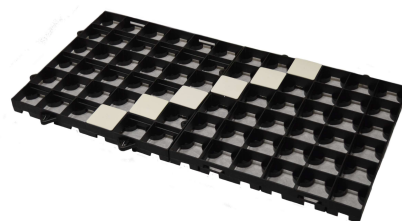
recyclable at end of use



The grid is specially designed to allow water to drain away, whilst pockets at the base retain a small amount, preventing grass from getting waterlogged or dying through lack of water.

Ideal for :

**carparks & hardstandings
footpaths & verges
pedestrian areas
bridge abutments
access roads**



Easily installed (see overleaf)



**Demarcation blocks available -
used to delineate parking bays
Forming arrows for traffic flow
Stock colour - white
other colours available to order**

PRODUCT DATA
NOMINAL SIZE
COVERAGE RATE
UNIT WEIGHT

INFILTRATION RATE
RUN OFF COEFFICIENT RANGE
INFILL SURFACE AREA
COMPRESSIVE STRENGTH (filled)

FirmGround45
500 x 500 x 45 mm (+0/-3%)
4 blocks / m2
1.2 kg
> 500cm/hour
0.05 - 0.25
> 90%
4000 KN / m2



MADE IN UK TO ISO9001 QUALITY STANDARDS

Pennine Manufacturing Ltd

Fold Mill, Bradley Lane, Little Lever, Bolton BL2 6RR

Tel 44(0) 1204 361547 Fax 44 (0) 1204 380872

eMail sales@pennineindustries.com

PENNINE FirmGround 45 Installation Instructions

Drainage

Will the site drain sufficiently well as it is ?

If not install the required extra drainage.

If any slope exceeds 6% , please contact us for further advice.

Subgrade

Excavate existing soils until you get down to ground capable of withstanding the loads to be imposed.

Fit a geotextile membrane if required as per the manufacturers instructions

Then fill with a suitable grade of free-draining crushed stone and then compact it well, leaving the top at the required level as per the architectural drawings.

Compact the subgrade with either a vibrating roller or vibrating plate, making good soft spots with suitable material.

NB provide a minimal (1:30 - 1:100) fall to the drainage collection system.

For Gravel Infill

Put a layer of sharp sand down sufficient to blind the crushed stone - usually between 10mm & 30mm.

Fit another layer of geotextile, overlapping the joints by 200mm.

Then install the Firmground as below.

Fill the FirmGround with aggregate whose size should not exceed 15mm and should ideally not be below 6mm (typically 10mm single sized crushed rock). The use of an angular gravel rather than a river washed rounded gravel will aid compaction and prevent migration from the units. Once the gravel has been compacted , add more gravel, if necessary, so that there is approximately 20mm of gravel above the top of the Firmground.

For Grass Infill

Lay approx. 30 - 40mm of good quality rootzone mix of sharp sand & loamy soil.

Then install the Firmground as below

A good quality topsoil should be used to infill the units to the top and allowed to settle; grass seeding followed immediately by a top dressing of a good quality fertiliser should ensure adequate grass growth.

Seeded areas should be regularly watered for a period of 6 weeks following installation

Laying the FirmGround

Start in one corner and fan out from there as below. Use a hand or power saw to cut the FirmGround to fit round obstructions.

Leave an expansion gap between the Firmground & any solid structure such as kerbs, walls etc. If the area of FirmGround is large , it is recommended that expansion joints are used

MADE IN UK TO ISO9001 QUALITY STANDARDS

