



Installation Guidelines



Kisawa Resort Mozambique



Quoin Rock



Plettenberg Bay



Pretoria University Medical Faculty

Proudly made
in South Africa



South Africa's first locally manufactured permeable paving grid!



Grassed Surfaces Installation Guide

Excavate ground to shape and level to achieve sufficient gradient and load bearing.

Depending on the soil type and projected traffic loadings, a geotextile and/or geogrid may be laid on the excavated surface. Cohesive soil may require subsoil drainage.

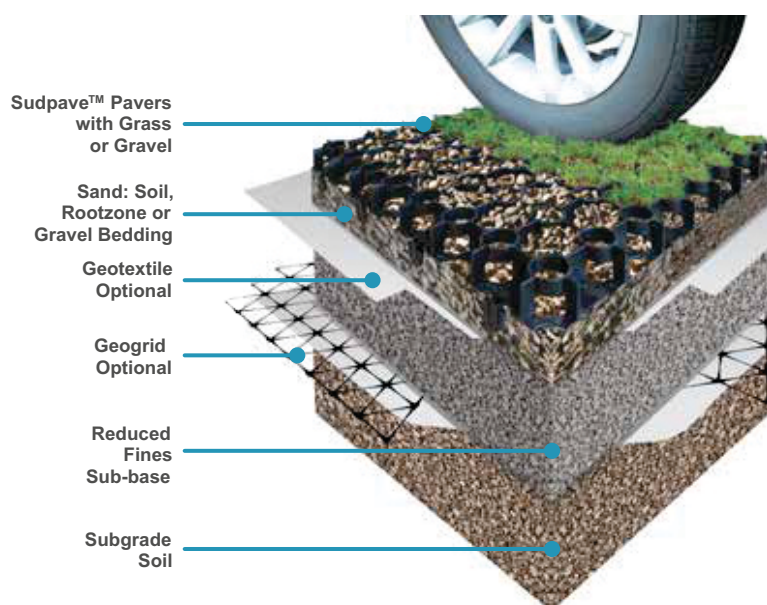
Place and compact a suitable base course material to sufficient depth to take projected loadings, (refer to guide in Table 1), ensuring that the area is shaped to sufficient gradients to prevent ponding.

A geotextile can be laid on top of the base course as a separation layer between this and the sandy top soil bedding layer to prevent migration of the particles. This is essential when using a permeable reduced fines base course but optional when using a roading type base course.

Install edging restraints (and irrigation if required). Edging restraints can be concrete road kerbs or timber or metal strips depending on requirement or specification.

Place a minimum 70 mm layer of root zone mix comprising sandy topsoil, (60% coarse sand to 40% good screened topsoil), over the base course layer. Compact and screed to level.

Lay **Sudpave™** panels on the sandy topsoil layer working from left to right with the connecting lugs on the panel leading.



Avoid standing directly on the prepared surface - stand on the **Sudpave™** panels and ensure they interlock together correctly.

Panels can be offset by cell increments or cut to shape using simple hand tools to fit around obstructions and curves. The use of cut-pieces which do not have the correct unique, interlocking system should be avoided wherever possible. **Sudpave™** also has integral stabilising spikes for steep slopes or heavy turning areas.

Loose fill the panels with the same root zone mix as used for the bedding layer, to 5 mm from the top of the **Sudpave™** panels. For compaction use a plate compactor to work the filling material into the pavers. Fill any voids with more root zone mix and leave filling material just below the **Sudpave™** panels to allow for seeding & soil to cover the seeds.

Carry out a normal seeding, fertilizing and watering program. Hydro seeding is a good option.

If using rolled turf or instant lawn, ensure filling material is finished 10 mm below the top of the **Sudpave™** panels and roll the turf into the surface to ensure the root zone is protected by the panel cell structure.

Normal establishment time should be allowed for the grass before the surface is trafficked but, for critical/emergency access purposes it can be used immediately.

Table 1

TRAFFIC TYPE	TYPICAL BASE COURSE THICKNESS
Pedestrian/Bicycles	50 - 100 mm
Light Vehicles	75- 150 mm
Heavy Vehicles	>150 mm

The base course design will need to be designed to the projected loadings, traffic volume and soil conditions and other contributing factors that correspond directly with the project.



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Gravel Surfaces Installation Guide

Excavate ground to shape and level to achieve sufficient gradient and load bearing.

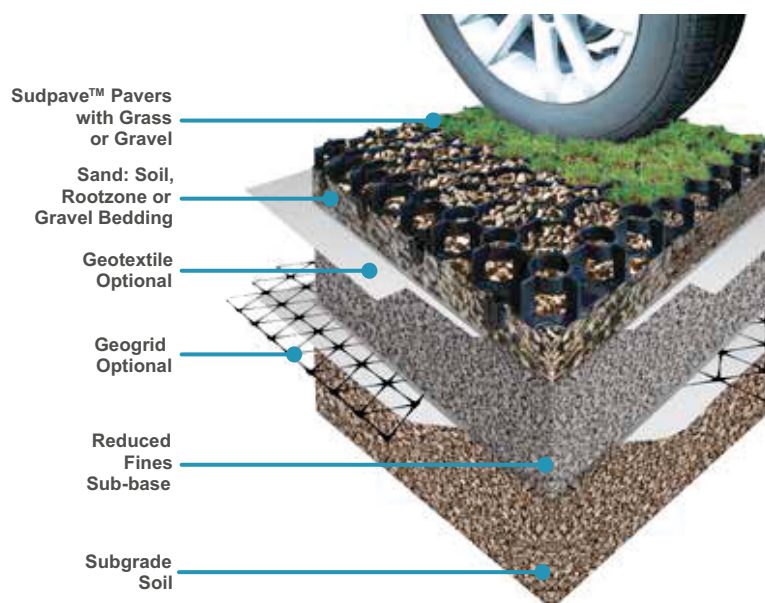
Depending on the sub-soil conditions and projected traffic loadings, a geotextile and/or geogrid may be laid on the excavated surface. Cohesive soils may require subsoil drainage.

Place and compact a suitable base course material to sufficient depth to take projected loadings, (refer to guide in Table 1), ensuring that the area is shaped to sufficient gradients to prevent ponding.

A geotextile can be laid on top of the base course as a separation layer between this and the gravel bedding layer to prevent migration of the particles. This is essential when using a permeable, reduced fines base course but optional when using a road type base course.

Install edging restraints. These can be concrete road kerbs or timber or metal strips depending on requirements or specifications.

Place 50 mm bedding layer, of clean, angular sand over the base course layer, compact and screed to level.



Lay **Sudpave™** panels on the bedding layer working from left to right with the connecting lugs on the panel leading. Avoid standing directly on the prepared surface - stand on the **Sudpave™** panels and ensure they interlock together correctly.

Panels can be offset by cell increments or cut to shape using simple hand tools to fit around obstructions and curves. The use of cut-pieces which do not have the correct unique, interlocking system should be avoided wherever possible. **Sudpave™** also has integral stabilising spikes for steep slopes or heavy turning areas.

Fill the panels with angular gravel to finished levels. 3 - 6 mm aggregate size is recommended as initial infill & plate compacted. Larger gravel up to 19 mm can be used to complete the fill for desired finish.

Use a plate compactor to consolidate the filling material into the pavers. Fill any voids that show due to this process with more of the specified aggregate until satisfied with the final compaction finish and leave filled material just covering the **Sudpave™** panels.

The surface maybe trafficked immediately.

Table 1

TRAFFIC TYPE	TYPICAL BASE COURSE THICKNESS
Pedestrian/Bicycles	50 - 100 mm
Light Vehicles	75- 150 mm
Heavy Vehicles	>150 mm

The base course design will need to be designed to the projected loadings, traffic volume and soil conditions and other contributing factors that correspond directly with the project.



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Domestic Lay Installation Guide

Grassed Surfaces

Existing Lawn Option:

Cut the grass very short and top dress with a river sand to ensure a level surface. Lay the **Sudpave™** and fill with a top soil and river sand mix. Allow the grass to grow through the grid. It is advisable not to overfill the grid. Normal grass maintenance is all that is required.

Install edging restraints (and irrigation if required) these can be concrete, road kerbs or timber or metal strips -depending on requirements.

New Installation:

Remove any vegetation to a depth of 100 mm. Ensure that the prepared surface is adequately shaped and formed to the desired levels, and gradients. Plate compact the surface to give a firm stable base. At this point, a geotextile can be laid in order to assist with stability.

Filling material must be a free draining, structurally sound blend of sand/soil or sand/compost. A minimum 70 mm layer of soil mix comprising 40%, top soil/compost and 60% river sand is then laid in order to create a healthy root zone. Compact lightly and screed to a level finish.

Fill the **Sudpave™** with the same root zone soil mixture to level with the top of the grids. Use a plate compactor to work the soil into the **Sudpave™**. Fill any voids that show due to this process with more root zone mix and **leave filling slightly below the top of the grid to allow grass growth.**

Carry out a normal seeding, fertilizing and watering program. A light top dressing may be applied to cover the seed and to provide adequate germination conditions. Hydro-seeding is a good option.

When using rolled turf, or instant lawn. This can be laid directly on top of the unfilled **Sudpave™** grid, and plate compacted into the grid. Top dress and water the soil through the grass so that this washes into, and fills the grid. **Do not over fill.**

It is preferable to allow the grass to establish before being trafficked - particularly when seeded but, for critical/emergency access, it can be used immediately.



Gravel Surfaces

Remove any vegetation to a depth of 100 mm. Ensure that the prepared surface is adequately shaped and formed to the desired levels, and gradients. Plate compact the surface to give a firm stable base.

At this point, a geotextile can be laid in order to assist with stability and stop migration of the gravel into the prepared surface. It will also act as a weed barrier.

A bedding layer of 3-6 mm clean angular gravel to be spread and leveled to a minimum compacted depth of 50 mm. Alternatively a free draining course sand bedding can be used.

Fill the **Sudpave™** grids with angular gravel. For best results, a gravel aggregate size of 3-6 mm is recommended. Should a larger gravel aggregate be required, it is advisable to first use smaller gravel and half fill and compact. This creates a more stable base into which the larger gravel can key and bond.

Use a plate compactor to consolidate the filling material into the pavers. Fill any voids that show due to this process, until satisfied with the final compaction finish. Allow the gravel to cover the **Sudpave™** completely.

A well compacted, angular gravel, will limit gravel migration. Occasional raking might be required in order to maintain a neat driveway.

The surface can be trafficked immediately.

General

Please ensure that ground conditions are suitably firm, and free draining. Cohesive soils may require sub-soil drainage.

Lay the **Sudpave™** panels on the bedding layer, making sure that the 'T' shape opening for the clip is the leading edge. Avoid standing directly on the prepared surface - rather stand on the **Sudpave™** panels. Ensure the panels clip together correctly, using a light hammer and a piece of wooden dowel.

Panels can be offset by cell increments or cut to shape using simple hand tools to fit around obstructions and curves. The use of off-cut pieces, without the unique interlocking system should be avoided wherever possible.

Sudpave™ also has integral stabilizing spikes for steep slopes or heavy turning areas.