

## Installation & Maintenance of AdPave 40.

### **Subgrade**

Excavate to formation level as indicated on the drawing, providing a minimal (1:30 - 1:100) fall to the drainage collection system. Compact the subgrade, using either a vibrating roller or vibrating plate, making good soft spots with suitable material.

### **For Infiltration Surfaces**

Lay the specified GT1900 geotextile, overlapping joints by 200mm, sufficient geotextile should protrude beyond the anticipated wearing course level to allow for final trimming. ***Geotextile is essential to prevent sand migration.***

### **Sub-base**

Use granular material (crushed gravel, rock or concrete) as specified, which must be sound, clean, non friable and free from clay or other deleterious matter. For guidance this can be a modified DoT Type 1 with the fines under 3 mm removed OR a single size aggregate – both will allow free drainage. Install the designed depth of sub-base as specified, in layers not greater than 200mm thick. Compact each layer in turn with a vibratory plate, type DVP 75/22" plate or suitable roller. Overlay the sub-base with the specified GT1900 175g non woven needle punched geotextile, overlapping the joints by 200mm.

### **Bedding Layer**

Lay, screed and compact to level, a 30mm depth of appropriate bedding layer material (sharp sand/grit). The requirement for, and selection of, the bedding layer material is entirely dependant upon the application / design criteria of the specific project. For grass reinforcement mix the bedding layer 4:1 with a good quality top soil to ensure good root growth.

### **Wearing Course**

Grid systems should be laid on a 45 degree face such that each modular unit abuts its neighbouring units, with the locating lugs inserted into the corresponding slots. After a reasonable area has been laid and lines straightened, each unit should be mechanically interlocked by means of tapered locking pins (inserted through the locating lugs 4 per unit) to prevent lateral displacement. For the AdPave these can be laid as a chequer pattern with the tee pieces located in the slots in adjacent units, Once a fully interlocked matrix has been formed, then the specified rootzone/grass seed infill material or natural aggregate should be used to infill each cell level to the top surface, such that a continuous, permanently porous, high load bearing structure is thereby created.

### **Infill Materials (sand and soil mix/aggregate)**

The selected infill material should be specified on a project specific basis dependent upon the application and design requirements, but the following could act as a guide:

**For Sand Bed;** A good quality compacted silica sharp sand or grit should be used approximately 30mm thickness after compaction.

**For Gravel Fill:** Aggregate size should be 5 - 15mm angular gravel and if adjacent to schools should ideally be 10mm single sized crushed rock (a rounded gravel will not compact sufficiently and will "roll" out of the cells to create an overspill and a soft aggregate such as limestone will crush under load to form a sealed dust surface).

**For Grass Fill;** 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 to the top of the units should ensure adequate grass growth. Seeded areas should be regularly watered for a period of 6 weeks following installation and traffic kept off the area until grass growth is adequately established.

### **Expansion**

The AdPave has an internal mechanism for this purpose. With a thermal expansion coefficient for the recycled material of  $13\text{cm}/\text{cm}/^{\circ}\text{C} \times 10^{-5}$ , this equates to a 1.3mm movement of a single 0.5m unit for every 20 degree movement in temperature. However within large areas (particularly with a gravel fill) expansion joints may be specified by the designer as a safety measure over and above the allowable movement .

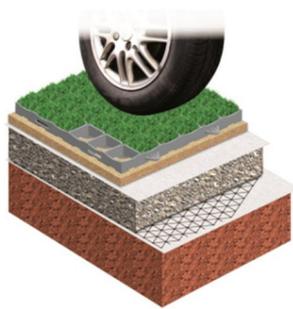
**Maintenance**

There is no specific additional maintenance procedure that is needed for this type of surfacing, but the following could act as a guide:

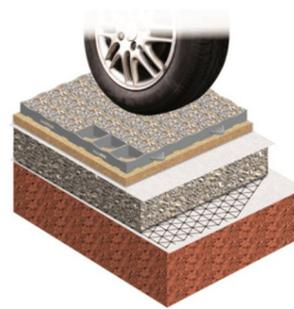
**For Gravel Fill;** Occasional sweeping of any overspill back into the units is all that is required for most areas that have been installed correctly. If gravel infill appears to be settling, check that the geotextile is installed beneath the sand to prevent migration & top up as required.

**For Grass Fill;** Once the grass has established itself and traffic allowed back onto the area a normal grass maintenance regime can be introduced (mowing etc). If the grass infill appears to be settling, check that the geotextile is installed beneath the sand to prevent migration & top up with loam as required.

**Breakages;** If isolated breakages occur (miss use, wheel spinning etc) these individual units can be removed and replaced by removing the fill, levering up the locking pins from the affected & immediately adjacent units and removing any broken units. Smooth out the bedding to suit and replacement units can be levered into position and locked back into place. Replace the infill to blend the unit into the surrounding surface.



AdPave with Grass



Adpave with Gravel

Suggested Grass Mixtures for grass infill (source [www.pavingexpert.com](http://www.pavingexpert.com)) - all at 20 - 30g/m2.

**General Parking:**

- 50% Perennial Ryegrass
- 20% Slender Creeping Red Fescue
- 25% Strong Creeping Red Fescue
- 5% Browntop Bent

**Driveways:**

- 80% Chewings Fescue
- 20% Browntop Bent

**Verges and Picnic areas:**

- 35% Smooth Stalked Meadow Grass
- 30% Slender Creeping Red Fescue
- 25% Perennial Ryegrass
- 10% Browntop Bent

**Accessways:**

- 30% Hard Fescue
- 20% Chewings Fescue
- 20% Slender Creeping Red Fescue
- 25% Strong Creeping Red Fescue
- 5% Browntop Bent

---- END ----