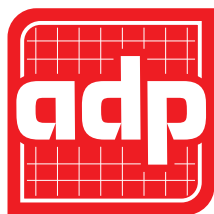




Source control for  
Sustainable Drainage Systems



SURFACE SOLUTIONS  
FOR GRASS & GRAVEL

# Source control for Sustainable Drainage Systems

## The need for SUDS

**Over the course of the past century the use of hard, impermeable surfaces for roads, driveways and parking areas has increased massively. The result has been that rainfall, which once infiltrated through the ground naturally is now typically drained over hard surfaces to pipes and culverts.**

This style of drainage causes two problems. First, because rainwater is piped directly to streams and rivers, it has contributed to the increasing incidence of localised and regional flooding. Second, because impermeable surfaces tend to be contaminated by oil, grease, rubber, silt etc, water runoff has the effect of polluting groundwater, rivers etc.

Because of these problems an alternative drainage methodology is required. Sustainable Urban Drainage Systems (SUDS) offer a range of alternative techniques designed to manage surface water runoff as close to the source as possible. SUDS provide long term environmental and social benefits by reducing the potential for flooding and by improving river and groundwater runoff.



### Legislative and guidance policies

**PP25** – planning policy guidance presumes against development within flood plains unless mitigation measures such as SUDS are incorporated.

**Building Regulations** – state that infiltration should be the primary rainwater management technique

**EA/SEPA** – both state that SUDS should be used on all new developments, unless the use of conventional drainage can be justified.

*Source control is the preferred infiltration technique used in SUDS systems because, by controlling runoff at source, both outfall volumes and pollution are reduced.*



## SURFACE SOLUTIONS FOR GRASS & GRAVEL

# Products for infiltration

All these products enable natural infiltration of rainwater and can be incorporated into recommended SUDS treatment trains. The treatment train concept is based on a series of complementary techniques to achieve enhanced water quality.

### TechTurf

TT 400 reinforced rootzone

High void content aggregate sub-base/storage layer blinded with fine aggregate

Geocomposite layer



Water infiltration into subsoil

### ADpave 50

ADpave50 with rootzone fill and grass cover

Consolidated rootzone

Geotextile filter

High void content aggregate sub-base/storage layer

Geocomposite layer



Subgrade soil



## Porous surfacing from ADP

**Porous surfacing is a key technique used in achieving source control at the earliest stage and the ADP Turf Systems range of products meet the requirement. They include:**

### ADpave

Manufactured from recycled polyethylene, these open cell pavers, can form an integral part of a porous paving solution.

**ADpave 50** units are connected together using a unique rapid fastening system to form a highly durable surface that can accommodate sloping ground and differential settlement.

The open cells of the pavers can be filled with gravel or, alternatively, with growing media and then seeded to provide a natural grass cover, and are ideal for use in car parks, drives, pathways, cycle routes and service/emergency vehicles access routes.

**ADpave 25** which is a lighter weight system, is designed to be laid directly on top of existing turf to form car parks and access routes for lighter vehicles.

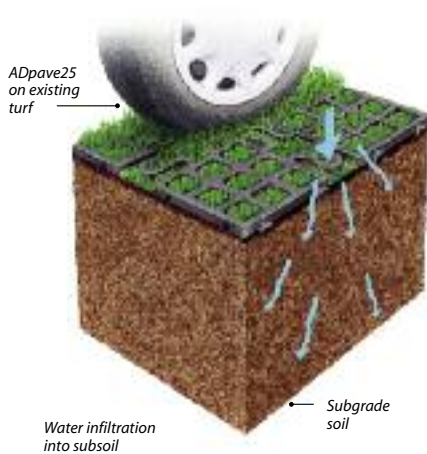
### TechTurf (TT 400)

TechTurf is an engineered grass system capable of handling occasional use by vehicles up to HGV. It comprises a specially prepared rootzone into which are blended thousands of small interlocking plastic mesh elements. As the grass roots penetrate the mesh they form a deep anchored, load bearing root system. Flexing of the mesh elements under traffic resists compaction. TechTurf is an ideal solution for overspill car parks, events and amenity areas and access routes for emergency and service vehicles.

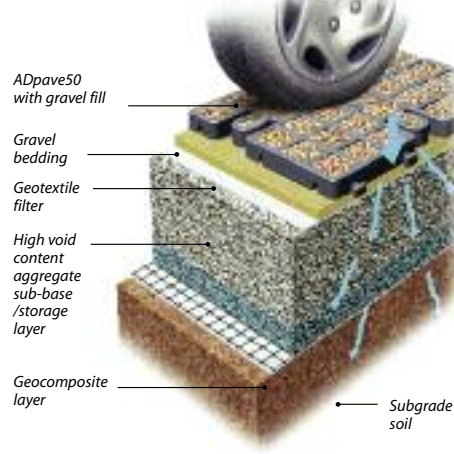
### Turfguard

Turfguard is a tough extruded, polyethylene mesh. Laid on top of existing turf it helps prevent surface erosion and is suitable for use in occasional use car parks and light vehicle and pedestrian access routes.

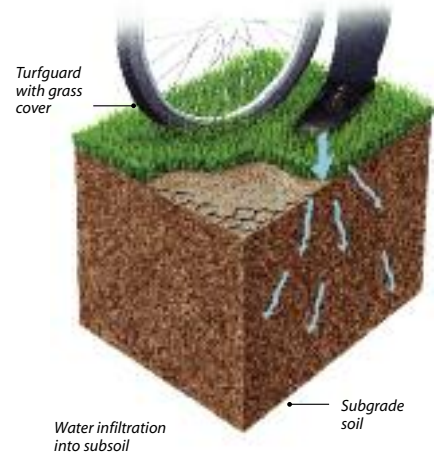
ADpave 25



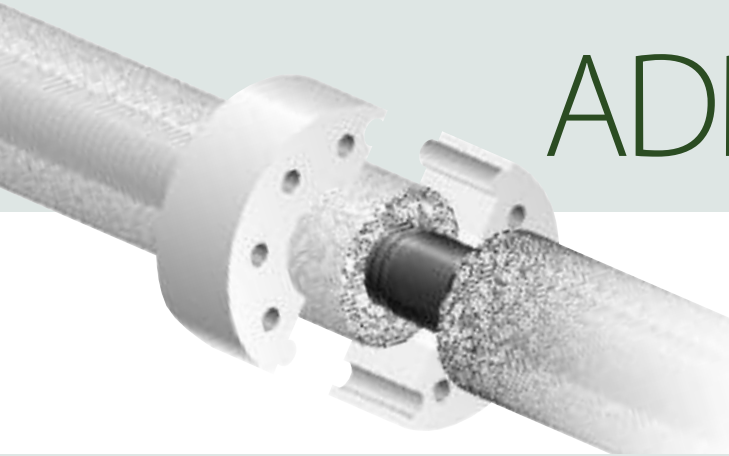
ADpave 50



Turfguard



# ADP Polybed

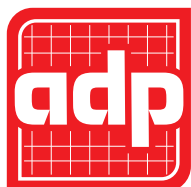


**ADP Polybed is a revolutionary drainage system that is ideal for use in SUDS applications. It comprises an engineered geosynthetic aggregate (recycled expanded polystyrene) surrounding three metre lengths of standard perforated pipe - all encased in polyethylene net with an outer wrapping of geotextile.**

Used in combination with the ADP porous surface products detailed in this brochure, Polybed provides an ideal solution for natural infiltration of rainwater.

#### Features and benefits

- Extremely lightweight and easy to handle
- Installed up to four times faster than traditional solutions
- Enhanced water treatment capabilities
- Provides a consistent void ratio in excess of 30%
- Reduces potential of long term clogging
- Sustainable product - manufactured using recycled waste materials



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